

FreeWRL/FreeX3D

4.3.0

Generated by Doxygen 1.8.17



<b>1 cson JSON API</b>	<b>1</b>
<b>2 Hierarchical Index</b>	<b>3</b>
2.1 Class Hierarchy . . . . .	3
<b>3 Data Structure Index</b>	<b>31</b>
3.1 Data Structures . . . . .	31
<b>4 Data Structure Documentation</b>	<b>57</b>
4.1 _AnyNative Struct Reference . . . . .	57
4.1.1 Detailed Description . . . . .	57
4.2 _Atlas Struct Reference . . . . .	57
4.2.1 Detailed Description . . . . .	58
4.3 _AtlasEntry Struct Reference . . . . .	58
4.3.1 Detailed Description . . . . .	58
4.4 _AtlasFont Struct Reference . . . . .	58
4.4.1 Detailed Description . . . . .	58
4.5 _BrowserNative Struct Reference . . . . .	59
4.5.1 Detailed Description . . . . .	59
4.6 _BUTitem Struct Reference . . . . .	59
4.6.1 Detailed Description . . . . .	59
4.7 _cd_list_t Struct Reference . . . . .	59
4.7.1 Detailed Description . . . . .	59
4.8 _contenttype Struct Reference . . . . .	60
4.8.1 Detailed Description . . . . .	60
4.9 _CRnodeStruct Struct Reference . . . . .	60
4.9.1 Detailed Description . . . . .	60
4.10 _FW_PluginInstance Struct Reference . . . . .	60
4.10.1 Detailed Description . . . . .	61
4.11 _geosys Struct Reference . . . . .	61
4.11.1 Detailed Description . . . . .	61
4.12 _GLwDrawingAreaClassPart Struct Reference . . . . .	61
4.12.1 Detailed Description . . . . .	61
4.13 _GLwDrawingAreaClassRec Struct Reference . . . . .	62
4.13.1 Detailed Description . . . . .	62
4.14 _GLwDrawingAreaRec Struct Reference . . . . .	62
4.14.1 Detailed Description . . . . .	62
4.15 _GUIElement Struct Reference . . . . .	62
4.15.1 Detailed Description . . . . .	62
4.16 _intX3D_MFBool Struct Reference . . . . .	63
4.16.1 Detailed Description . . . . .	63
4.17 _intX3D_MFColor Struct Reference . . . . .	63
4.17.1 Detailed Description . . . . .	63

4.18	_intX3D_MFColorRGBA Struct Reference . . . . .	63
4.18.1	Detailed Description . . . . .	63
4.19	_intX3D_MFFloat Struct Reference . . . . .	64
4.19.1	Detailed Description . . . . .	64
4.20	_intX3D_MFImage Struct Reference . . . . .	64
4.20.1	Detailed Description . . . . .	64
4.21	_intX3D_MFInt32 Struct Reference . . . . .	64
4.21.1	Detailed Description . . . . .	64
4.22	_intX3D_MFNode Struct Reference . . . . .	65
4.22.1	Detailed Description . . . . .	65
4.23	_intX3D_MFRotation Struct Reference . . . . .	65
4.23.1	Detailed Description . . . . .	65
4.24	_intX3D_MFString Struct Reference . . . . .	65
4.24.1	Detailed Description . . . . .	65
4.25	_intX3D_MFTime Struct Reference . . . . .	66
4.25.1	Detailed Description . . . . .	66
4.26	_intX3D_MFVec2d Struct Reference . . . . .	66
4.26.1	Detailed Description . . . . .	66
4.27	_intX3D_MFVec2f Struct Reference . . . . .	66
4.27.1	Detailed Description . . . . .	66
4.28	_intX3D_MFVec3d Struct Reference . . . . .	67
4.28.1	Detailed Description . . . . .	67
4.29	_intX3D_MFVec3f Struct Reference . . . . .	67
4.29.1	Detailed Description . . . . .	67
4.30	_intX3D_SFBool Struct Reference . . . . .	67
4.30.1	Detailed Description . . . . .	67
4.31	_intX3D_SFColor Struct Reference . . . . .	68
4.31.1	Detailed Description . . . . .	68
4.32	_intX3D_SFColorRGBA Struct Reference . . . . .	68
4.32.1	Detailed Description . . . . .	68
4.33	_intX3D_SFFloat Struct Reference . . . . .	68
4.33.1	Detailed Description . . . . .	68
4.34	_intX3D_SFImage Struct Reference . . . . .	69
4.34.1	Detailed Description . . . . .	69
4.35	_intX3D_SFInt32 Struct Reference . . . . .	69
4.35.1	Detailed Description . . . . .	69
4.36	_intX3D_SFNode Struct Reference . . . . .	69
4.36.1	Detailed Description . . . . .	69
4.37	_intX3D_SFRotation Struct Reference . . . . .	70
4.37.1	Detailed Description . . . . .	70
4.38	_intX3D_SFString Struct Reference . . . . .	70
4.38.1	Detailed Description . . . . .	70

4.39	_intX3D_SFTime Struct Reference . . . . .	70
4.39.1	Detailed Description . . . . .	70
4.40	_intX3D_SFVec2d Struct Reference . . . . .	71
4.40.1	Detailed Description . . . . .	71
4.41	_intX3D_SFVec2f Struct Reference . . . . .	71
4.41.1	Detailed Description . . . . .	71
4.42	_intX3D_SFVec3d Struct Reference . . . . .	71
4.42.1	Detailed Description . . . . .	71
4.43	_intX3D_SFVec3f Struct Reference . . . . .	72
4.43.1	Detailed Description . . . . .	72
4.44	_intX3DEventIn Struct Reference . . . . .	72
4.44.1	Detailed Description . . . . .	72
4.45	_NPByteRange Struct Reference . . . . .	72
4.45.1	Detailed Description . . . . .	73
4.46	_NPEmbedPrint Struct Reference . . . . .	73
4.46.1	Detailed Description . . . . .	73
4.47	_NPFullPrint Struct Reference . . . . .	73
4.47.1	Detailed Description . . . . .	73
4.48	_NPImageExpose Struct Reference . . . . .	74
4.48.1	Detailed Description . . . . .	74
4.49	_NPNetscapeFuncs Struct Reference . . . . .	74
4.49.1	Detailed Description . . . . .	75
4.50	_NPP Struct Reference . . . . .	75
4.50.1	Detailed Description . . . . .	75
4.51	_NPPluginFuncs Struct Reference . . . . .	76
4.51.1	Detailed Description . . . . .	76
4.52	_NPPrint Struct Reference . . . . .	76
4.52.1	Detailed Description . . . . .	76
4.53	_NPRect Struct Reference . . . . .	77
4.53.1	Detailed Description . . . . .	77
4.54	_NPSavedData Struct Reference . . . . .	77
4.54.1	Detailed Description . . . . .	77
4.55	_NPSize Struct Reference . . . . .	77
4.55.1	Detailed Description . . . . .	77
4.56	_NPStream Struct Reference . . . . .	78
4.56.1	Detailed Description . . . . .	78
4.57	_NPString Struct Reference . . . . .	78
4.57.1	Detailed Description . . . . .	78
4.58	_NPVariant Struct Reference . . . . .	78
4.58.1	Detailed Description . . . . .	79
4.59	_NPWindow Struct Reference . . . . .	79
4.59.1	Detailed Description . . . . .	79

---

4.60	_s_list_t Struct Reference . . . . .	79
4.60.1	Detailed Description . . . . .	79
4.61	freeWRLSAI_cpp::_SAIParameter Class Reference . . . . .	80
4.61.1	Detailed Description . . . . .	80
4.62	_SFColorNative Struct Reference . . . . .	80
4.62.1	Detailed Description . . . . .	80
4.63	_SFColorRGBANative Struct Reference . . . . .	80
4.63.1	Detailed Description . . . . .	80
4.64	_SFImageNative Struct Reference . . . . .	81
4.64.1	Detailed Description . . . . .	81
4.65	_SFNodeNative Struct Reference . . . . .	81
4.65.1	Detailed Description . . . . .	81
4.66	_SFRotationNative Struct Reference . . . . .	81
4.66.1	Detailed Description . . . . .	81
4.67	_SFVec2fNative Struct Reference . . . . .	82
4.67.1	Detailed Description . . . . .	82
4.68	_SFVec3dNative Struct Reference . . . . .	82
4.68.1	Detailed Description . . . . .	82
4.69	_SFVec3fNative Struct Reference . . . . .	82
4.69.1	Detailed Description . . . . .	82
4.70	_SFVec4dNative Struct Reference . . . . .	83
4.70.1	Detailed Description . . . . .	83
4.71	_SFVec4fNative Struct Reference . . . . .	83
4.71.1	Detailed Description . . . . .	83
4.72	_urlRequest Struct Reference . . . . .	83
4.72.1	Detailed Description . . . . .	83
4.73	_X3DNode Union Reference . . . . .	84
4.73.1	Detailed Description . . . . .	84
4.74	AcknowledgePdu Struct Reference . . . . .	84
4.74.1	Detailed Description . . . . .	85
4.75	AcknowledgeReliablePdu Struct Reference . . . . .	85
4.75.1	Detailed Description . . . . .	85
4.76	AcousticBeamData Struct Reference . . . . .	85
4.76.1	Detailed Description . . . . .	86
4.77	AcousticBeamFundamentalParameter Struct Reference . . . . .	86
4.77.1	Detailed Description . . . . .	86
4.78	AcousticEmitter Struct Reference . . . . .	86
4.78.1	Detailed Description . . . . .	87
4.79	AcousticEmitterSystem Struct Reference . . . . .	87
4.79.1	Detailed Description . . . . .	87
4.79.2	Field Documentation . . . . .	87
4.79.2.1	acousticFunction . . . . .	87

---

4.79.2.2 acousticID . . . . .	88
4.80 AcousticEmitterSystemData Struct Reference . . . . .	88
4.80.1 Detailed Description . . . . .	88
4.80.2 Field Documentation . . . . .	88
4.80.2.1 beamRecords . . . . .	89
4.81 ActionRequestPdu Struct Reference . . . . .	89
4.81.1 Detailed Description . . . . .	89
4.82 ActionRequestReliablePdu Struct Reference . . . . .	90
4.82.1 Detailed Description . . . . .	90
4.83 ActionResponsePdu Struct Reference . . . . .	90
4.83.1 Detailed Description . . . . .	91
4.84 ActionResponseReliablePdu Struct Reference . . . . .	91
4.84.1 Detailed Description . . . . .	91
4.85 ActiveRegion Struct Reference . . . . .	91
4.85.1 Detailed Description . . . . .	92
4.86 AggregateID Struct Reference . . . . .	92
4.86.1 Detailed Description . . . . .	92
4.87 AggregateMarking Struct Reference . . . . .	92
4.87.1 Detailed Description . . . . .	92
4.88 AggregateStatePdu Struct Reference . . . . .	93
4.88.1 Detailed Description . . . . .	93
4.88.2 Field Documentation . . . . .	94
4.88.2.1 pad2 . . . . .	94
4.89 AggregateType Struct Reference . . . . .	94
4.89.1 Detailed Description . . . . .	94
4.90 AngularVelocityVector Struct Reference . . . . .	95
4.90.1 Detailed Description . . . . .	95
4.91 AntennaLocation Struct Reference . . . . .	95
4.91.1 Detailed Description . . . . .	95
4.92 anyVrml Union Reference . . . . .	95
4.92.1 Detailed Description . . . . .	96
4.93 ApaData Struct Reference . . . . .	96
4.93.1 Detailed Description . . . . .	96
4.94 Arc Class Reference . . . . .	96
4.94.1 Detailed Description . . . . .	98
4.95 ArcSdirSorter Class Reference . . . . .	98
4.95.1 Detailed Description . . . . .	98
4.96 ArcSorter Class Reference . . . . .	98
4.96.1 Detailed Description . . . . .	99
4.97 ArcTdirSorter Class Reference . . . . .	99
4.97.1 Detailed Description . . . . .	99
4.98 ArcTessellator Class Reference . . . . .	100

---

4.98.1 Detailed Description . . . . .	100
4.99 ArealObjectStatePdu Struct Reference . . . . .	100
4.99.1 Detailed Description . . . . .	101
4.100 ArgListType Struct Reference . . . . .	101
4.100.1 Detailed Description . . . . .	101
4.101 ArticulationParameter Struct Reference . . . . .	101
4.101.1 Detailed Description . . . . .	101
4.102 AtlasEntrySet Struct Reference . . . . .	102
4.102.1 Detailed Description . . . . .	102
4.103 Backend Class Reference . . . . .	102
4.103.1 Detailed Description . . . . .	103
4.104 vrml.BaseNode Class Reference . . . . .	103
4.104.1 Detailed Description . . . . .	104
4.105 BasePlugin Class Reference . . . . .	104
4.105.1 Detailed Description . . . . .	104
4.106 BasicCurveEvaluator Class Reference . . . . .	105
4.106.1 Detailed Description . . . . .	105
4.107 BasicSurfaceEvaluator Class Reference . . . . .	105
4.107.1 Detailed Description . . . . .	106
4.108 BeamAntennaPattern Struct Reference . . . . .	107
4.108.1 Detailed Description . . . . .	107
4.108.2 Field Documentation . . . . .	107
4.108.2.1 beamDirection . . . . .	107
4.109 BeamData Struct Reference . . . . .	108
4.109.1 Detailed Description . . . . .	108
4.109.2 Field Documentation . . . . .	108
4.109.2.1 beamSweepSync . . . . .	108
4.110 BezierArc Struct Reference . . . . .	108
4.110.1 Detailed Description . . . . .	109
4.111 bezierPatch Struct Reference . . . . .	109
4.111.1 Detailed Description . . . . .	109
4.112 bezierPatchMesh Struct Reference . . . . .	110
4.112.1 Detailed Description . . . . .	110
4.113 Bin Class Reference . . . . .	110
4.113.1 Detailed Description . . . . .	111
4.114 bindablestack Struct Reference . . . . .	111
4.114.1 Detailed Description . . . . .	111
4.115 block Struct Reference . . . . .	111
4.115.1 Detailed Description . . . . .	112
4.116 Breakpt Struct Reference . . . . .	112
4.116.1 Detailed Description . . . . .	112
4.117 brotoDefpair Struct Reference . . . . .	112

---



4.117.1 Detailed Description . . . . .	112
4.118 brotoIS Struct Reference . . . . .	113
4.118.1 Detailed Description . . . . .	113
4.119 brotoRoute Struct Reference . . . . .	113
4.119.1 Detailed Description . . . . .	113
4.120 brouteEnd Struct Reference . . . . .	114
4.120.1 Detailed Description . . . . .	114
4.121 org.web3d.x3d.sai.Browser Interface Reference . . . . .	114
4.121.1 Detailed Description . . . . .	115
4.122 vrml.Browser Class Reference . . . . .	115
4.122.1 Detailed Description . . . . .	115
4.123 vrml.external.Browser Class Reference . . . . .	116
4.123.1 Detailed Description . . . . .	117
4.124 org.web3d.x3d.sai.BrowserEvent Class Reference . . . . .	117
4.124.1 Detailed Description . . . . .	118
4.125 sai.BrowserFactory Class Reference . . . . .	118
4.125.1 Detailed Description . . . . .	118
4.126 org.web3d.x3d.sai.BrowserFactoryImpl Interface Reference . . . . .	118
4.126.1 Detailed Description . . . . .	119
4.127 vrml.external.BrowserGlobals Class Reference . . . . .	119
4.127.1 Detailed Description . . . . .	119
4.128 sai.BrowserGlobals Class Reference . . . . .	119
4.128.1 Detailed Description . . . . .	119
4.129 org.web3d.x3d.sai.BrowserInterface Interface Reference . . . . .	120
4.129.1 Detailed Description . . . . .	120
4.130 vrml.external.BrowserInterface Interface Reference . . . . .	120
4.130.1 Detailed Description . . . . .	120
4.131 org.web3d.x3d.sai.BrowserListener Interface Reference . . . . .	121
4.131.1 Detailed Description . . . . .	121
4.132 freeWRLSAI_cpp::browserNotSharedException Class Reference . . . . .	121
4.132.1 Detailed Description . . . . .	121
4.133 org.web3d.x3d.sai.BrowserNotSharedException Class Reference . . . . .	122
4.133.1 Detailed Description . . . . .	122
4.134 Buffer Class Reference . . . . .	122
4.134.1 Detailed Description . . . . .	122
4.135 BurstDescriptor Struct Reference . . . . .	123
4.135.1 Detailed Description . . . . .	123
4.136 CachedVertex Struct Reference . . . . .	123
4.136.1 Detailed Description . . . . .	123
4.137 CachingEvaluator Class Reference . . . . .	123
4.137.1 Detailed Description . . . . .	124
4.138 cbDataExactName Struct Reference . . . . .	124

---

4.138.1 Detailed Description . . . . .	124
4.139 cbDataRootNameAndRouteDir Struct Reference . . . . .	125
4.139.1 Detailed Description . . . . .	125
4.140 CdIIFreeWRL Class Reference . . . . .	125
4.140.1 Detailed Description . . . . .	126
4.141 chardata Struct Reference . . . . .	126
4.141.1 Detailed Description . . . . .	126
4.142 chaser_ptrs Struct Reference . . . . .	127
4.142.1 Detailed Description . . . . .	127
4.143 cline Struct Reference . . . . .	127
4.143.1 Detailed Description . . . . .	127
4.144 ClockTime Struct Reference . . . . .	127
4.144.1 Detailed Description . . . . .	128
4.145 coded_block_pattern_entry Struct Reference . . . . .	128
4.145.1 Detailed Description . . . . .	128
4.146 CollisionElasticPdu Struct Reference . . . . .	128
4.146.1 Detailed Description . . . . .	129
4.146.2 Field Documentation . . . . .	129
4.146.2.1 unitSurfaceNormal . . . . .	129
4.147 CollisionPdu Struct Reference . . . . .	129
4.147.1 Detailed Description . . . . .	130
4.148 colorScheme Struct Reference . . . . .	130
4.148.1 Detailed Description . . . . .	130
4.149 command Struct Reference . . . . .	130
4.149.1 Detailed Description . . . . .	130
4.150 CommentPdu Struct Reference . . . . .	131
4.150.1 Detailed Description . . . . .	131
4.151 CommentReliablePdu Struct Reference . . . . .	131
4.151.1 Detailed Description . . . . .	131
4.152 org.web3d.x3d.sai.ComponentInfo Interface Reference . . . . .	132
4.152.1 Detailed Description . . . . .	132
4.153 connection_info_struct Struct Reference . . . . .	132
4.153.1 Detailed Description . . . . .	132
4.154 org.web3d.x3d.sai.ConnectionException Class Reference . . . . .	133
4.154.1 Detailed Description . . . . .	133
4.155 freeWRLSAI_cpp::connectionException Class Reference . . . . .	133
4.155.1 Detailed Description . . . . .	133
4.156 consoleLine Struct Reference . . . . .	134
4.156.1 Detailed Description . . . . .	134
4.157 vrml.ConstField Class Reference . . . . .	134
4.157.1 Detailed Description . . . . .	135
4.158 vrml.field.ConstMFCOLOR Class Reference . . . . .	135

---

4.158.1 Detailed Description . . . . .	135
4.159 vrml.field.ConstMFFloat Class Reference . . . . .	136
4.159.1 Detailed Description . . . . .	136
4.160 vrml.ConstMField Class Reference . . . . .	136
4.160.1 Detailed Description . . . . .	137
4.161 vrml.field.ConstMFInt32 Class Reference . . . . .	138
4.161.1 Detailed Description . . . . .	138
4.162 vrml.field.ConstMFNode Class Reference . . . . .	138
4.162.1 Detailed Description . . . . .	139
4.163 vrml.field.ConstMFRotation Class Reference . . . . .	139
4.163.1 Detailed Description . . . . .	140
4.164 vrml.field.ConstMFString Class Reference . . . . .	140
4.164.1 Detailed Description . . . . .	140
4.165 vrml.field.ConstMFTime Class Reference . . . . .	141
4.165.1 Detailed Description . . . . .	141
4.166 vrml.field.ConstMFVec2f Class Reference . . . . .	141
4.166.1 Detailed Description . . . . .	142
4.167 vrml.field.ConstMFVec3f Class Reference . . . . .	142
4.167.1 Detailed Description . . . . .	143
4.168 vrml.field.ConstSFBool Class Reference . . . . .	143
4.168.1 Detailed Description . . . . .	143
4.169 vrml.field.ConstSFColor Class Reference . . . . .	144
4.169.1 Detailed Description . . . . .	144
4.170 vrml.field.ConstSFFloat Class Reference . . . . .	144
4.170.1 Detailed Description . . . . .	145
4.171 vrml.field.ConstSFImage Class Reference . . . . .	145
4.171.1 Detailed Description . . . . .	146
4.172 vrml.field.ConstSFInt32 Class Reference . . . . .	146
4.172.1 Detailed Description . . . . .	146
4.173 vrml.field.ConstSFNode Class Reference . . . . .	147
4.173.1 Detailed Description . . . . .	147
4.174 vrml.field.ConstSFRotation Class Reference . . . . .	147
4.174.1 Detailed Description . . . . .	148
4.175 vrml.field.ConstSFString Class Reference . . . . .	148
4.175.1 Detailed Description . . . . .	148
4.176 vrml.field.ConstSFTime Class Reference . . . . .	149
4.176.1 Detailed Description . . . . .	149
4.177 vrml.field.ConstSFVec2f Class Reference . . . . .	149
4.177.1 Detailed Description . . . . .	150
4.178 vrml.field.ConstSFVec3f Class Reference . . . . .	150
4.178.1 Detailed Description . . . . .	151
4.179 contenttype_captiontext Struct Reference . . . . .	151

---

4.179.1 Detailed Description . . . . .	151
4.180 contenttype_e3dmouse Struct Reference . . . . .	151
4.180.1 Detailed Description . . . . .	152
4.181 contenttype_layer Struct Reference . . . . .	152
4.181.1 Detailed Description . . . . .	152
4.182 contenttype_multitouch Struct Reference . . . . .	152
4.182.1 Detailed Description . . . . .	152
4.183 contenttype_orientation Struct Reference . . . . .	153
4.183.1 Detailed Description . . . . .	153
4.184 contenttype_quadrant Struct Reference . . . . .	153
4.184.1 Detailed Description . . . . .	153
4.185 contenttype_scene Struct Reference . . . . .	153
4.185.1 Detailed Description . . . . .	154
4.186 contenttype_splitter Struct Reference . . . . .	154
4.186.1 Detailed Description . . . . .	154
4.187 contenttype_statusbar Struct Reference . . . . .	154
4.187.1 Detailed Description . . . . .	154
4.188 contenttype_stereo_anaglyph Struct Reference . . . . .	154
4.188.1 Detailed Description . . . . .	155
4.189 contenttype_stereo_shutter Struct Reference . . . . .	155
4.189.1 Detailed Description . . . . .	155
4.190 contenttype_stereo_sidebyside Struct Reference . . . . .	155
4.190.1 Detailed Description . . . . .	155
4.191 contenttype_stereo_updown Struct Reference . . . . .	155
4.191.1 Detailed Description . . . . .	156
4.192 contenttype_switch Struct Reference . . . . .	156
4.192.1 Detailed Description . . . . .	156
4.193 contenttype_textpanel Struct Reference . . . . .	156
4.193.1 Detailed Description . . . . .	157
4.194 contenttype_texturegrid Struct Reference . . . . .	157
4.194.1 Detailed Description . . . . .	157
4.195 CoveAndTiler Class Reference . . . . .	157
4.195.1 Detailed Description . . . . .	158
4.196 CPlugin Class Reference . . . . .	158
4.196.1 Detailed Description . . . . .	158
4.196.2 Constructor & Destructor Documentation . . . . .	158
4.196.2.1 CPlugin() . . . . .	159
4.197 CR_RegStruct Struct Reference . . . . .	159
4.197.1 Detailed Description . . . . .	159
4.198 CreateEntityPdu Struct Reference . . . . .	159
4.198.1 Detailed Description . . . . .	160
4.199 CreateEntityReliablePdu Struct Reference . . . . .	160

---

4.199.1 Detailed Description . . . . .	160
4.200 CRjsnameStruct Struct Reference . . . . .	160
4.200.1 Detailed Description . . . . .	160
4.201 CRscriptStruct Struct Reference . . . . .	161
4.201.1 Detailed Description . . . . .	161
4.202 CRStruct Struct Reference . . . . .	161
4.202.1 Detailed Description . . . . .	161
4.203 cson_array Struct Reference . . . . .	162
4.203.1 Detailed Description . . . . .	162
4.204 cson_buffer Struct Reference . . . . .	162
4.204.1 Detailed Description . . . . .	163
4.204.2 Field Documentation . . . . .	163
4.204.2.1 capacity . . . . .	163
4.204.2.2 mem . . . . .	163
4.204.2.3 timesExpanded . . . . .	164
4.204.2.4 used . . . . .	164
4.205 cson_data_source_StringSource_Struct Reference . . . . .	164
4.205.1 Detailed Description . . . . .	164
4.205.2 Field Documentation . . . . .	165
4.205.2.1 pos . . . . .	165
4.206 cson_kvpair Struct Reference . . . . .	165
4.206.1 Detailed Description . . . . .	165
4.207 cson_kvpair_list Struct Reference . . . . .	166
4.207.1 Detailed Description . . . . .	166
4.208 cson_object Struct Reference . . . . .	166
4.208.1 Detailed Description . . . . .	166
4.209 cson_object_iterator Struct Reference . . . . .	167
4.209.1 Detailed Description . . . . .	167
4.210 cson_output_opt Struct Reference . . . . .	167
4.210.1 Detailed Description . . . . .	168
4.210.2 Field Documentation . . . . .	168
4.210.2.1 escapeForwardSlashes . . . . .	168
4.210.2.2 indentation . . . . .	168
4.210.2.3 maxDepth . . . . .	169
4.211 cson_parse_info Struct Reference . . . . .	169
4.211.1 Detailed Description . . . . .	169
4.212 cson_parse_opt Struct Reference . . . . .	170
4.212.1 Detailed Description . . . . .	170
4.212.2 Field Documentation . . . . .	170
4.212.2.1 allowComments . . . . .	170
4.213 cson_parser Struct Reference . . . . .	170
4.213.1 Detailed Description . . . . .	171

---

4.214 cson_string Struct Reference . . . . .	171
4.214.1 Detailed Description . . . . .	171
4.215 cson_value Struct Reference . . . . .	172
4.215.1 Detailed Description . . . . .	172
4.215.2 Field Documentation . . . . .	173
4.215.2.1 api . . . . .	173
4.215.2.2 refcount . . . . .	173
4.215.2.3 value . . . . .	174
4.216 cson_value_api Struct Reference . . . . .	174
4.216.1 Detailed Description . . . . .	174
4.216.2 Field Documentation . . . . .	174
4.216.2.1 cleanup . . . . .	174
4.217 cson_value_list Struct Reference . . . . .	175
4.217.1 Detailed Description . . . . .	175
4.218 curfile64_info Struct Reference . . . . .	175
4.218.1 Detailed Description . . . . .	175
4.219 currayhit Struct Reference . . . . .	176
4.219.1 Detailed Description . . . . .	176
4.220 Curve Class Reference . . . . .	176
4.220.1 Detailed Description . . . . .	176
4.221 curveEvalMachine Struct Reference . . . . .	177
4.221.1 Detailed Description . . . . .	177
4.222 Curvelist Class Reference . . . . .	177
4.222.1 Detailed Description . . . . .	177
4.223 damper_ptr Struct Reference . . . . .	178
4.223.1 Detailed Description . . . . .	178
4.224 DataPdu Struct Reference . . . . .	178
4.224.1 Detailed Description . . . . .	178
4.225 DataQueryPdu Struct Reference . . . . .	179
4.225.1 Detailed Description . . . . .	179
4.225.2 Field Documentation . . . . .	179
4.225.2.1 timeInterval . . . . .	179
4.226 DataQueryReliablePdu Struct Reference . . . . .	180
4.226.1 Detailed Description . . . . .	180
4.227 DataReliablePdu Struct Reference . . . . .	180
4.227.1 Detailed Description . . . . .	181
4.228 datChnk Struct Reference . . . . .	181
4.228.1 Detailed Description . . . . .	181
4.229 dct_dc_size_entry Struct Reference . . . . .	181
4.229.1 Detailed Description . . . . .	181
4.230 DDS_header Union Reference . . . . .	182
4.230.1 Detailed Description . . . . .	182

---

4.231 DdsLoadInfo Struct Reference . . . . .	182
4.231.1 Detailed Description . . . . .	183
4.232 DeadReckoningParameter Struct Reference . . . . .	183
4.232.1 Detailed Description . . . . .	183
4.233 depth_slice Struct Reference . . . . .	183
4.233.1 Detailed Description . . . . .	183
4.234 DesignatorPdu Struct Reference . . . . .	184
4.234.1 Detailed Description . . . . .	184
4.235 DetonationPdu Struct Reference . . . . .	185
4.235.1 Detailed Description . . . . .	185
4.235.2 Field Documentation . . . . .	185
4.235.2.1 locationInEntityCoordinates . . . . .	185
4.236 Dict Struct Reference . . . . .	186
4.236.1 Detailed Description . . . . .	186
4.237 DictNode Struct Reference . . . . .	186
4.237.1 Detailed Description . . . . .	186
4.238 directedLine Class Reference . . . . .	187
4.238.1 Detailed Description . . . . .	188
4.239 dis_class Struct Reference . . . . .	188
4.239.1 Detailed Description . . . . .	188
4.240 dis_socket Struct Reference . . . . .	188
4.240.1 Detailed Description . . . . .	188
4.241 disfieldattr Struct Reference . . . . .	189
4.241.1 Detailed Description . . . . .	189
4.242 DisplayList Class Reference . . . . .	189
4.242.1 Detailed Description . . . . .	189
4.243 freeWRLSAI_cpp::disposedException Class Reference . . . . .	190
4.243.1 Detailed Description . . . . .	190
4.244 DistributedEmissionsFamilyPdu Struct Reference . . . . .	190
4.244.1 Detailed Description . . . . .	190
4.245 Dlnode Struct Reference . . . . .	190
4.245.1 Detailed Description . . . . .	191
4.246 draw_call_params Struct Reference . . . . .	191
4.246.1 Detailed Description . . . . .	191
4.247 duk__bigint Struct Reference . . . . .	192
4.247.1 Detailed Description . . . . .	192
4.248 duk__compile_raw_args Struct Reference . . . . .	192
4.248.1 Detailed Description . . . . .	192
4.249 duk__compiler_stkstate Struct Reference . . . . .	192
4.249.1 Detailed Description . . . . .	192
4.250 duk__decode_context Struct Reference . . . . .	193
4.250.1 Detailed Description . . . . .	193

---

4.251 duk__encode_context Struct Reference . . . . .	193
4.251.1 Detailed Description . . . . .	193
4.252 duk__exp_limits Struct Reference . . . . .	193
4.252.1 Detailed Description . . . . .	194
4.253 duk__id_lookup_result Struct Reference . . . . .	194
4.253.1 Detailed Description . . . . .	194
4.254 duk__numconv_stringify_ctx Struct Reference . . . . .	194
4.254.1 Detailed Description . . . . .	195
4.255 duk__objlit_state Struct Reference . . . . .	195
4.255.1 Detailed Description . . . . .	195
4.256 duk__pcall_prop_args Struct Reference . . . . .	195
4.256.1 Detailed Description . . . . .	195
4.257 duk__re_disjunction_info Struct Reference . . . . .	195
4.257.1 Detailed Description . . . . .	196
4.258 duk__transform_context Struct Reference . . . . .	196
4.258.1 Detailed Description . . . . .	196
4.259 duk_activation Struct Reference . . . . .	196
4.259.1 Detailed Description . . . . .	196
4.260 duk_bitdecoder_ctx Struct Reference . . . . .	197
4.260.1 Detailed Description . . . . .	197
4.261 duk_bitencoder_ctx Struct Reference . . . . .	197
4.261.1 Detailed Description . . . . .	197
4.262 duk_breakpoint Struct Reference . . . . .	197
4.262.1 Detailed Description . . . . .	198
4.263 duk_bufwriter_ctx Struct Reference . . . . .	198
4.263.1 Detailed Description . . . . .	198
4.264 duk_catcher Struct Reference . . . . .	198
4.264.1 Detailed Description . . . . .	198
4.265 duk_compiler_ctx Struct Reference . . . . .	199
4.265.1 Detailed Description . . . . .	199
4.266 duk_compiler_func Struct Reference . . . . .	199
4.266.1 Detailed Description . . . . .	200
4.267 duk_compiler_instr Struct Reference . . . . .	200
4.267.1 Detailed Description . . . . .	201
4.268 duk_double_union Union Reference . . . . .	201
4.268.1 Detailed Description . . . . .	201
4.269 duk_function_list_entry Struct Reference . . . . .	201
4.269.1 Detailed Description . . . . .	201
4.270 duk_harray Struct Reference . . . . .	202
4.270.1 Detailed Description . . . . .	202
4.271 duk_hbuffer Struct Reference . . . . .	202
4.271.1 Detailed Description . . . . .	202

---



4.272 duk_hbuffer_dynamic Struct Reference . . . . .	202
4.272.1 Detailed Description . . . . .	202
4.273 duk_hbuffer_external Struct Reference . . . . .	203
4.273.1 Detailed Description . . . . .	203
4.274 duk_hbuffer_fixed Struct Reference . . . . .	203
4.274.1 Detailed Description . . . . .	203
4.275 duk_hbufobj Struct Reference . . . . .	203
4.275.1 Detailed Description . . . . .	204
4.276 duk_hcompfunc Struct Reference . . . . .	204
4.276.1 Detailed Description . . . . .	204
4.277 duk_heap Struct Reference . . . . .	204
4.277.1 Detailed Description . . . . .	205
4.278 duk_heaphdr Struct Reference . . . . .	205
4.278.1 Detailed Description . . . . .	205
4.279 duk_heaphdr_string Struct Reference . . . . .	205
4.279.1 Detailed Description . . . . .	206
4.280 duk_hnatfunc Struct Reference . . . . .	206
4.280.1 Detailed Description . . . . .	206
4.281 duk_hobject Struct Reference . . . . .	206
4.281.1 Detailed Description . . . . .	206
4.282 duk_hstring Struct Reference . . . . .	207
4.282.1 Detailed Description . . . . .	207
4.283 duk_hstring_external Struct Reference . . . . .	207
4.283.1 Detailed Description . . . . .	207
4.284 duk_hthread Struct Reference . . . . .	208
4.284.1 Detailed Description . . . . .	208
4.285 duk_internal_thread_state Struct Reference . . . . .	208
4.285.1 Detailed Description . . . . .	209
4.286 duk_ispec Struct Reference . . . . .	209
4.286.1 Detailed Description . . . . .	209
4.287 duk_ivalue Struct Reference . . . . .	209
4.287.1 Detailed Description . . . . .	209
4.288 duk_jmpbuf Struct Reference . . . . .	209
4.288.1 Detailed Description . . . . .	210
4.289 duk_json_dec_ctx Struct Reference . . . . .	210
4.289.1 Detailed Description . . . . .	210
4.290 duk_json_enc_ctx Struct Reference . . . . .	210
4.290.1 Detailed Description . . . . .	211
4.291 duk_labelinfo Struct Reference . . . . .	211
4.291.1 Detailed Description . . . . .	211
4.292 duk_lexer_codepoint Struct Reference . . . . .	211
4.292.1 Detailed Description . . . . .	211

---

4.293 duk_lexer_ctx Struct Reference . . . . .	212
4.293.1 Detailed Description . . . . .	212
4.294 duk_lexer_point Struct Reference . . . . .	212
4.294.1 Detailed Description . . . . .	212
4.295 duk_ljstate Struct Reference . . . . .	213
4.295.1 Detailed Description . . . . .	213
4.296 duk_memory_functions Struct Reference . . . . .	213
4.296.1 Detailed Description . . . . .	213
4.297 duk_number_list_entry Struct Reference . . . . .	213
4.297.1 Detailed Description . . . . .	214
4.298 duk_propaccessor Struct Reference . . . . .	214
4.298.1 Detailed Description . . . . .	214
4.299 duk_propdesc Struct Reference . . . . .	214
4.299.1 Detailed Description . . . . .	214
4.300 duk_propvalue Union Reference . . . . .	215
4.300.1 Detailed Description . . . . .	215
4.301 duk_re_compiler_ctx Struct Reference . . . . .	215
4.301.1 Detailed Description . . . . .	215
4.302 duk_re_matcher_ctx Struct Reference . . . . .	215
4.302.1 Detailed Description . . . . .	216
4.303 duk_re_token Struct Reference . . . . .	216
4.303.1 Detailed Description . . . . .	216
4.304 duk_strcache Struct Reference . . . . .	216
4.304.1 Detailed Description . . . . .	216
4.305 duk_strtab_entry Struct Reference . . . . .	217
4.305.1 Detailed Description . . . . .	217
4.306 duk_thread_state Struct Reference . . . . .	217
4.306.1 Detailed Description . . . . .	217
4.307 duk_time_components Struct Reference . . . . .	217
4.307.1 Detailed Description . . . . .	218
4.308 duk_token Struct Reference . . . . .	218
4.308.1 Detailed Description . . . . .	218
4.309 duk_tval_unused Struct Reference . . . . .	218
4.309.1 Detailed Description . . . . .	218
4.310 EAI_Extra_Data Struct Reference . . . . .	219
4.310.1 Detailed Description . . . . .	219
4.311 EAI_ListenerStruct Struct Reference . . . . .	219
4.311.1 Detailed Description . . . . .	219
4.312 vrml.external.FreeWRLEAI.EAIAsyncMessage Class Reference . . . . .	219
4.312.1 Detailed Description . . . . .	220
4.313 sai.eai.EAIAsyncMessage Class Reference . . . . .	220
4.313.1 Detailed Description . . . . .	220

---

4.314 vrml.external.FreeWRLEAI.EAIAsyncQueue Class Reference . . . . .	220
4.314.1 Detailed Description . . . . .	220
4.315 sai.eai.EAIAsyncQueue Class Reference . . . . .	221
4.315.1 Detailed Description . . . . .	221
4.316 sai.eai.EAIAsyncThread Class Reference . . . . .	221
4.316.1 Detailed Description . . . . .	221
4.317 vrml.external.FreeWRLEAI.EAIAsyncThread Class Reference . . . . .	221
4.317.1 Detailed Description . . . . .	222
4.318 sai.eai.EAIInThread Class Reference . . . . .	222
4.318.1 Detailed Description . . . . .	222
4.319 vrml.external.FreeWRLEAI.EAIInThread Class Reference . . . . .	222
4.319.1 Detailed Description . . . . .	223
4.320 sai.eai.EAIMessage Class Reference . . . . .	223
4.320.1 Detailed Description . . . . .	223
4.321 vrml.external.FreeWRLEAI.EAIMessage Class Reference . . . . .	223
4.321.1 Detailed Description . . . . .	224
4.322 EAINodeIndexStruct Struct Reference . . . . .	224
4.322.1 Detailed Description . . . . .	224
4.323 EAINodeParams Struct Reference . . . . .	224
4.323.1 Detailed Description . . . . .	224
4.324 sai.eai.EAIoutQueue Class Reference . . . . .	225
4.324.1 Detailed Description . . . . .	225
4.325 vrml.external.FreeWRLEAI.EAIoutQueue Class Reference . . . . .	225
4.325.1 Detailed Description . . . . .	225
4.326 sai.eai.EAIoutThread Class Reference . . . . .	225
4.326.1 Detailed Description . . . . .	226
4.327 vrml.external.FreeWRLEAI.EAIoutThread Class Reference . . . . .	226
4.327.1 Detailed Description . . . . .	226
4.328 EdgePair Struct Reference . . . . .	226
4.328.1 Detailed Description . . . . .	227
4.329 EightByteChunk Struct Reference . . . . .	227
4.329.1 Detailed Description . . . . .	227
4.330 ElectronicEmissionBeamData Struct Reference . . . . .	227
4.330.1 Detailed Description . . . . .	228
4.330.2 Field Documentation . . . . .	228
4.330.2.1 beamParameterIndex . . . . .	228
4.331 ElectronicEmissionsPdu Struct Reference . . . . .	228
4.331.1 Detailed Description . . . . .	228
4.332 ElectronicEmissionSystemData Struct Reference . . . . .	229
4.332.1 Detailed Description . . . . .	229
4.332.2 Field Documentation . . . . .	229
4.332.2.1 numberOfBeams . . . . .	229

4.332.2.2 systemDataLength . . . . .	229
4.333 ellipsoid Struct Reference . . . . .	230
4.333.1 Detailed Description . . . . .	230
4.334 EmitterSystem Struct Reference . . . . .	230
4.334.1 Detailed Description . . . . .	230
4.335 EntityID Struct Reference . . . . .	230
4.335.1 Detailed Description . . . . .	231
4.336 EntityInformationFamilyPdu Struct Reference . . . . .	231
4.336.1 Detailed Description . . . . .	231
4.337 EntityManagementFamilyPdu Struct Reference . . . . .	231
4.337.1 Detailed Description . . . . .	231
4.338 EntityStatePdu Struct Reference . . . . .	232
4.338.1 Detailed Description . . . . .	232
4.339 EntityStateUpdatePdu Struct Reference . . . . .	233
4.339.1 Detailed Description . . . . .	233
4.340 EntityType Struct Reference . . . . .	233
4.340.1 Detailed Description . . . . .	234
4.341 Environment Struct Reference . . . . .	234
4.341.1 Detailed Description . . . . .	234
4.342 EnvironmentalProcessPdu Struct Reference . . . . .	234
4.342.1 Detailed Description . . . . .	235
4.343 vrml.Event Class Reference . . . . .	235
4.343.1 Detailed Description . . . . .	235
4.344 EventID Struct Reference . . . . .	235
4.344.1 Detailed Description . . . . .	236
4.345 vrml.external.field.EventIn Class Reference . . . . .	236
4.345.1 Detailed Description . . . . .	237
4.346 vrml.external.field.EventInMFColor Class Reference . . . . .	237
4.346.1 Detailed Description . . . . .	237
4.347 vrml.external.field.EventInMFFloat Class Reference . . . . .	237
4.347.1 Detailed Description . . . . .	238
4.348 vrml.external.field.EventInMFInt32 Class Reference . . . . .	238
4.348.1 Detailed Description . . . . .	238
4.349 vrml.external.field.EventInMFNode Class Reference . . . . .	239
4.349.1 Detailed Description . . . . .	239
4.350 vrml.external.field.EventInMFRotation Class Reference . . . . .	239
4.350.1 Detailed Description . . . . .	239
4.351 vrml.external.field.EventInMFString Class Reference . . . . .	240
4.351.1 Detailed Description . . . . .	240
4.352 vrml.external.field.EventInMFVec2f Class Reference . . . . .	240
4.352.1 Detailed Description . . . . .	240
4.353 vrml.external.field.EventInMFVec3f Class Reference . . . . .	241

4.353.1 Detailed Description . . . . .	241
4.354 vrml.external.field.EventInSFBool Class Reference . . . . .	241
4.354.1 Detailed Description . . . . .	241
4.355 vrml.external.field.EventInSFColor Class Reference . . . . .	242
4.355.1 Detailed Description . . . . .	242
4.356 vrml.external.field.EventInSFFloat Class Reference . . . . .	242
4.356.1 Detailed Description . . . . .	242
4.357 vrml.external.field.EventInSFImage Class Reference . . . . .	243
4.357.1 Detailed Description . . . . .	243
4.358 vrml.external.field.EventInSFInt32 Class Reference . . . . .	243
4.358.1 Detailed Description . . . . .	243
4.359 vrml.external.field.EventInSFNode Class Reference . . . . .	244
4.359.1 Detailed Description . . . . .	244
4.360 vrml.external.field.EventInSFRotation Class Reference . . . . .	244
4.360.1 Detailed Description . . . . .	244
4.361 vrml.external.field.EventInSFString Class Reference . . . . .	245
4.361.1 Detailed Description . . . . .	245
4.362 vrml.external.field.EventInSFTime Class Reference . . . . .	245
4.362.1 Detailed Description . . . . .	245
4.363 vrml.external.field.EventInSFVec2f Class Reference . . . . .	246
4.363.1 Detailed Description . . . . .	246
4.364 vrml.external.field.EventInSFVec3f Class Reference . . . . .	246
4.364.1 Detailed Description . . . . .	246
4.365 vrml.external.field.EventOut Class Reference . . . . .	247
4.365.1 Detailed Description . . . . .	248
4.366 vrml.external.field.EventOutMFColor Class Reference . . . . .	248
4.366.1 Detailed Description . . . . .	248
4.367 vrml.external.field.EventOutMFFloat Class Reference . . . . .	248
4.367.1 Detailed Description . . . . .	249
4.368 vrml.external.field.EventOutMField Class Reference . . . . .	249
4.368.1 Detailed Description . . . . .	250
4.369 vrml.external.field.EventOutMFInt32 Class Reference . . . . .	250
4.369.1 Detailed Description . . . . .	250
4.370 vrml.external.field.EventOutMFNode Class Reference . . . . .	250
4.370.1 Detailed Description . . . . .	251
4.371 vrml.external.field.EventOutMFRotation Class Reference . . . . .	251
4.371.1 Detailed Description . . . . .	251
4.372 vrml.external.field.EventOutMFString Class Reference . . . . .	252
4.372.1 Detailed Description . . . . .	252
4.373 vrml.external.field.EventOutMFVec2f Class Reference . . . . .	252
4.373.1 Detailed Description . . . . .	253
4.374 vrml.external.field.EventOutMFVec3f Class Reference . . . . .	253

4.374.1 Detailed Description . . . . .	253
4.375 vrml.external.field.EventOutObserver Interface Reference . . . . .	253
4.375.1 Detailed Description . . . . .	254
4.376 vrml.external.field.EventOutSFBool Class Reference . . . . .	254
4.376.1 Detailed Description . . . . .	254
4.377 vrml.external.field.EventOutSFColor Class Reference . . . . .	254
4.377.1 Detailed Description . . . . .	255
4.378 vrml.external.field.EventOutSFFloat Class Reference . . . . .	255
4.378.1 Detailed Description . . . . .	255
4.379 vrml.external.field.EventOutSFImage Class Reference . . . . .	255
4.379.1 Detailed Description . . . . .	256
4.380 vrml.external.field.EventOutSFInt32 Class Reference . . . . .	256
4.380.1 Detailed Description . . . . .	256
4.381 vrml.external.field.EventOutSFNode Class Reference . . . . .	257
4.381.1 Detailed Description . . . . .	257
4.382 vrml.external.field.EventOutSFRotation Class Reference . . . . .	257
4.382.1 Detailed Description . . . . .	257
4.383 vrml.external.field.EventOutSFString Class Reference . . . . .	258
4.383.1 Detailed Description . . . . .	258
4.384 vrml.external.field.EventOutSFTime Class Reference . . . . .	258
4.384.1 Detailed Description . . . . .	258
4.385 vrml.external.field.EventOutSFVec2f Class Reference . . . . .	259
4.385.1 Detailed Description . . . . .	259
4.386 vrml.external.field.EventOutSFVec3f Class Reference . . . . .	259
4.386.1 Detailed Description . . . . .	259
4.387 EventReportPdu Struct Reference . . . . .	260
4.387.1 Detailed Description . . . . .	260
4.388 EventReportReliablePdu Struct Reference . . . . .	260
4.388.1 Detailed Description . . . . .	261
4.389 org.web3d.x3d.sai.ExternalBrowser Interface Reference . . . . .	261
4.389.1 Detailed Description . . . . .	261
4.390 extrusion Struct Reference . . . . .	261
4.390.1 Detailed Description . . . . .	262
4.391 FaceCount Struct Reference . . . . .	262
4.391.1 Detailed Description . . . . .	262
4.392 FastEntityStatePdu Struct Reference . . . . .	262
4.392.1 Detailed Description . . . . .	264
4.393 vrml.Field Class Reference . . . . .	264
4.393.1 Detailed Description . . . . .	265
4.394 field_info Struct Reference . . . . .	265
4.394.1 Detailed Description . . . . .	265
4.395 FieldDecl Struct Reference . . . . .	265

4.395.1 Detailed Description . . . . .	266
4.396 vrml.external.field.FieldTypes Class Reference . . . . .	266
4.396.1 Detailed Description . . . . .	266
4.397 file_in_zip64_read_info_s Struct Reference . . . . .	267
4.397.1 Detailed Description . . . . .	267
4.398 FirePdu Struct Reference . . . . .	267
4.398.1 Detailed Description . . . . .	268
4.399 FirstStruct Struct Reference . . . . .	268
4.399.1 Detailed Description . . . . .	268
4.400 FixedDatum Struct Reference . . . . .	268
4.400.1 Detailed Description . . . . .	268
4.401 Flist Class Reference . . . . .	269
4.401.1 Detailed Description . . . . .	269
4.402 FlistSorter Class Reference . . . . .	269
4.402.1 Detailed Description . . . . .	270
4.403 flychord Struct Reference . . . . .	270
4.403.1 Detailed Description . . . . .	270
4.404 fmtChnk Struct Reference . . . . .	270
4.404.1 Detailed Description . . . . .	271
4.405 FourByteChunk Struct Reference . . . . .	271
4.405.1 Detailed Description . . . . .	271
4.406 freewrl_params Struct Reference . . . . .	271
4.406.1 Detailed Description . . . . .	272
4.407 sai.FreeWRLBrowser Class Reference . . . . .	272
4.407.1 Detailed Description . . . . .	274
4.408 sai.FreeWRLBrowserInfo Class Reference . . . . .	274
4.408.1 Detailed Description . . . . .	274
4.409 sai.FreeWRLComponent Class Reference . . . . .	274
4.409.1 Detailed Description . . . . .	274
4.410 sai.FreeWRLField Class Reference . . . . .	275
4.410.1 Detailed Description . . . . .	276
4.411 sai.FreeWRLFieldDefinition Class Reference . . . . .	276
4.411.1 Detailed Description . . . . .	277
4.412 sai.FreeWRLFieldTypes Class Reference . . . . .	277
4.412.1 Detailed Description . . . . .	277
4.413 sai.FreeWRLMField Class Reference . . . . .	278
4.413.1 Detailed Description . . . . .	278
4.414 sai.FreeWRLNode Class Reference . . . . .	279
4.414.1 Detailed Description . . . . .	279
4.415 sai.FreeWRLNodeTypes Class Reference . . . . .	279
4.415.1 Detailed Description . . . . .	280
4.416 sai.FreeWRLRendererInfo Class Reference . . . . .	280

4.416.1 Detailed Description . . . . .	280
4.417 sai.FreeWRLScene Class Reference . . . . .	281
4.417.1 Detailed Description . . . . .	282
4.418 ftype Struct Reference . . . . .	282
4.418.1 Detailed Description . . . . .	282
4.419 FundamentalParameterData Struct Reference . . . . .	283
4.419.1 Detailed Description . . . . .	283
4.419.2 Field Documentation . . . . .	283
4.419.2.1 beamSweepSync . . . . .	283
4.419.2.2 effectiveRadiatedPower . . . . .	284
4.420 FundamentalParameterDataIff Struct Reference . . . . .	284
4.420.1 Detailed Description . . . . .	284
4.421 fw_MaterialParameters Struct Reference . . . . .	285
4.421.1 Detailed Description . . . . .	285
4.422 FWBITMAPFILEHEADER Struct Reference . . . . .	285
4.422.1 Detailed Description . . . . .	285
4.423 FWBITMAPINFO Struct Reference . . . . .	285
4.423.1 Detailed Description . . . . .	286
4.424 FWBITMAPINFOHEADER Struct Reference . . . . .	286
4.424.1 Detailed Description . . . . .	286
4.425 sai.FWComponentInfo Class Reference . . . . .	286
4.425.1 Detailed Description . . . . .	287
4.426 vrml.FWCreateField Class Reference . . . . .	287
4.426.1 Detailed Description . . . . .	287
4.427 sai.FWExternProtoDeclaration Class Reference . . . . .	287
4.427.1 Detailed Description . . . . .	288
4.428 FWFunctionSpec Struct Reference . . . . .	288
4.428.1 Detailed Description . . . . .	288
4.429 vrml.FWHelper Class Reference . . . . .	288
4.429.1 Detailed Description . . . . .	288
4.430 vrml.FWJavaScript Class Reference . . . . .	289
4.430.1 Detailed Description . . . . .	289
4.431 vrml.FWJavaScriptBinding Class Reference . . . . .	289
4.431.1 Detailed Description . . . . .	289
4.432 vrml.FWJavaScriptClassLoader Class Reference . . . . .	290
4.432.1 Detailed Description . . . . .	290
4.432.2 Constructor & Destructor Documentation . . . . .	290
4.432.2.1 FWJavaScriptClassLoader() . . . . .	290
4.433 sai.FWMFColor Class Reference . . . . .	291
4.433.1 Detailed Description . . . . .	291
4.434 sai.FWMFColorRGBA Class Reference . . . . .	291
4.434.1 Detailed Description . . . . .	292



4.435 sai.FWMFDouble Class Reference . . . . .	292
4.435.1 Detailed Description . . . . .	293
4.436 sai.FWMFFloat Class Reference . . . . .	293
4.436.1 Detailed Description . . . . .	293
4.437 sai.FWMFInt32 Class Reference . . . . .	294
4.437.1 Detailed Description . . . . .	294
4.438 sai.FWMFNode Class Reference . . . . .	294
4.438.1 Detailed Description . . . . .	295
4.439 sai.FWMFRotation Class Reference . . . . .	295
4.439.1 Detailed Description . . . . .	296
4.440 sai.FWMFString Class Reference . . . . .	296
4.440.1 Detailed Description . . . . .	296
4.441 sai.FWMFVec2d Class Reference . . . . .	297
4.441.1 Detailed Description . . . . .	297
4.442 sai.FWMFVec2f Class Reference . . . . .	297
4.442.1 Detailed Description . . . . .	298
4.443 sai.FWMFVec3d Class Reference . . . . .	298
4.443.1 Detailed Description . . . . .	299
4.444 sai.FWMFVec3f Class Reference . . . . .	299
4.444.1 Detailed Description . . . . .	299
4.445 sai.FWProfileInfo Class Reference . . . . .	300
4.445.1 Detailed Description . . . . .	300
4.446 sai.FWProfInfo Class Reference . . . . .	300
4.446.1 Detailed Description . . . . .	300
4.447 FWPropertySpec Struct Reference . . . . .	301
4.447.1 Detailed Description . . . . .	301
4.448 sai.FWProtoDeclaration Class Reference . . . . .	301
4.448.1 Detailed Description . . . . .	302
4.449 sai.FWProtoInstance Class Reference . . . . .	302
4.449.1 Detailed Description . . . . .	302
4.450 FWRGBQUAD Struct Reference . . . . .	302
4.450.1 Detailed Description . . . . .	303
4.451 sai.FWRoute Class Reference . . . . .	303
4.451.1 Detailed Description . . . . .	303
4.452 sai.FWSFBool Class Reference . . . . .	303
4.452.1 Detailed Description . . . . .	304
4.453 sai.FWSFColor Class Reference . . . . .	304
4.453.1 Detailed Description . . . . .	304
4.454 sai.FWSFColorRGBA Class Reference . . . . .	305
4.454.1 Detailed Description . . . . .	305
4.455 sai.FWSFDouble Class Reference . . . . .	305
4.455.1 Detailed Description . . . . .	306

4.456 sai.FWSFFloat Class Reference . . . . .	306
4.456.1 Detailed Description . . . . .	306
4.457 sai.FWSFImage Class Reference . . . . .	306
4.457.1 Detailed Description . . . . .	307
4.458 sai.FWSFInt32 Class Reference . . . . .	307
4.458.1 Detailed Description . . . . .	307
4.459 sai.FWSFNode Class Reference . . . . .	308
4.459.1 Detailed Description . . . . .	308
4.460 sai.FWSFRotation Class Reference . . . . .	308
4.460.1 Detailed Description . . . . .	309
4.461 sai.FWSFString Class Reference . . . . .	309
4.461.1 Detailed Description . . . . .	309
4.462 sai.FWSFTime Class Reference . . . . .	309
4.462.1 Detailed Description . . . . .	310
4.463 sai.FWSFVec2d Class Reference . . . . .	310
4.463.1 Detailed Description . . . . .	310
4.464 sai.FWSFVec2f Class Reference . . . . .	311
4.464.1 Detailed Description . . . . .	311
4.465 sai.FWSFVec3d Class Reference . . . . .	311
4.465.1 Detailed Description . . . . .	312
4.466 sai.FWSFVec3f Class Reference . . . . .	312
4.466.1 Detailed Description . . . . .	312
4.467 FWSNDMSG Struct Reference . . . . .	312
4.467.1 Detailed Description . . . . .	313
4.468 FWTYPE Struct Reference . . . . .	313
4.468.1 Detailed Description . . . . .	313
4.469 FWVAL Struct Reference . . . . .	313
4.469.1 Detailed Description . . . . .	314
4.470 FXY Struct Reference . . . . .	314
4.470.1 Detailed Description . . . . .	314
4.471 gcgd Struct Reference . . . . .	314
4.471.1 Detailed Description . . . . .	315
4.472 GLUface Struct Reference . . . . .	315
4.472.1 Detailed Description . . . . .	315
4.473 GLUhalfEdge Struct Reference . . . . .	315
4.473.1 Detailed Description . . . . .	315
4.474 GLUmesh Struct Reference . . . . .	316
4.474.1 Detailed Description . . . . .	316
4.475 GLUnurbs Class Reference . . . . .	316
4.475.1 Detailed Description . . . . .	317
4.476 GLUtesselator Struct Reference . . . . .	317
4.476.1 Detailed Description . . . . .	318

4.477 GLUvertex Struct Reference . . . . .	318
4.477.1 Detailed Description . . . . .	318
4.478 GLwDrawingAreaCallbackStruct Struct Reference . . . . .	318
4.478.1 Detailed Description . . . . .	319
4.479 GLwDrawingAreaPart Struct Reference . . . . .	319
4.479.1 Detailed Description . . . . .	319
4.480 GoP Struct Reference . . . . .	320
4.480.1 Detailed Description . . . . .	320
4.481 GridAxisRecord Struct Reference . . . . .	320
4.481.1 Detailed Description . . . . .	320
4.482 GridAxisRecordRepresentation0 Struct Reference . . . . .	320
4.482.1 Detailed Description . . . . .	321
4.483 GridAxisRecordRepresentation1 Struct Reference . . . . .	321
4.483.1 Detailed Description . . . . .	321
4.484 GridAxisRecordRepresentation2 Struct Reference . . . . .	321
4.484.1 Detailed Description . . . . .	321
4.485 gridBoundaryChain Class Reference . . . . .	322
4.485.1 Detailed Description . . . . .	322
4.486 GriddedDataPdu Struct Reference . . . . .	322
4.486.1 Detailed Description . . . . .	323
4.487 Gridline Struct Reference . . . . .	323
4.487.1 Detailed Description . . . . .	323
4.488 GridTrimVertex Class Reference . . . . .	324
4.488.1 Detailed Description . . . . .	324
4.489 GridVertex Struct Reference . . . . .	324
4.489.1 Detailed Description . . . . .	325
4.490 gridWrap Class Reference . . . . .	325
4.490.1 Detailed Description . . . . .	325
4.491 GUINamedType Struct Reference . . . . .	325
4.491.1 Detailed Description . . . . .	326
4.492 GUIScreen Struct Reference . . . . .	326
4.492.1 Detailed Description . . . . .	326
4.493 Hull Class Reference . . . . .	326
4.493.1 Detailed Description . . . . .	327
4.494 vrml.external.IBrowser Interface Reference . . . . .	327
4.494.1 Detailed Description . . . . .	328
4.495 IffAtcNavAidsLayer1Pdu Struct Reference . . . . .	328
4.495.1 Detailed Description . . . . .	328
4.495.2 Field Documentation . . . . .	328
4.495.2.1 location . . . . .	329
4.496 IffAtcNavAidsLayer2Pdu Struct Reference . . . . .	329
4.496.1 Detailed Description . . . . .	329

4.496.2 Field Documentation . . . . .	329
4.496.2.1 fundamentalIffParameters . . . . .	329
4.497 IffFundamentalData Struct Reference . . . . .	330
4.497.1 Detailed Description . . . . .	330
4.498 iiglobal Struct Reference . . . . .	330
4.498.1 Detailed Description . . . . .	332
4.499 IMEXPORT Struct Reference . . . . .	333
4.499.1 Detailed Description . . . . .	333
4.500 org.web3d.x3d.sai.ImportedException Class Reference . . . . .	333
4.500.1 Detailed Description . . . . .	333
4.501 initialRouteStruct Struct Reference . . . . .	333
4.501.1 Detailed Description . . . . .	334
4.502 freeWRLSAI_cpp::insufficientCapabilitiesException Class Reference . . . . .	334
4.502.1 Detailed Description . . . . .	334
4.503 org.web3d.x3d.sai.InsufficientCapabilitiesException Class Reference . . . . .	334
4.503.1 Detailed Description . . . . .	335
4.504 IntercomCommunicationsParameters Struct Reference . . . . .	335
4.504.1 Detailed Description . . . . .	335
4.504.2 Field Documentation . . . . .	335
4.504.2.1 recordSpecificField . . . . .	335
4.505 IntercomControlPdu Struct Reference . . . . .	336
4.505.1 Detailed Description . . . . .	336
4.505.2 Field Documentation . . . . .	336
4.505.2.1 intercomParameters . . . . .	336
4.506 IntercomSignalPdu Struct Reference . . . . .	337
4.506.1 Detailed Description . . . . .	337
4.507 intersection_info Struct Reference . . . . .	337
4.507.1 Detailed Description . . . . .	337
4.508 freeWRLSAI_cpp::invalidAccessTypeException Class Reference . . . . .	338
4.508.1 Detailed Description . . . . .	338
4.509 freeWRLSAI_cpp::invalidBrowserException Class Reference . . . . .	338
4.509.1 Detailed Description . . . . .	339
4.510 org.web3d.x3d.sai.InvalidBrowserException Class Reference . . . . .	339
4.510.1 Detailed Description . . . . .	339
4.511 freeWRLSAI_cpp::invalidDocumentException Class Reference . . . . .	339
4.511.1 Detailed Description . . . . .	340
4.512 org.web3d.x3d.sai.InvalidDocumentException Class Reference . . . . .	340
4.512.1 Detailed Description . . . . .	340
4.513 vrml.InvalidEventInException Class Reference . . . . .	340
4.513.1 Detailed Description . . . . .	341
4.514 vrml.external.exception.InvalidEventInException Class Reference . . . . .	341
4.514.1 Detailed Description . . . . .	341

4.514.2 Constructor & Destructor Documentation . . . . .	341
4.514.2.1 InvalidEventInException() . . . . .	341
4.515 vrml.InvalidEventOutException Class Reference . . . . .	342
4.515.1 Detailed Description . . . . .	342
4.516 vrml.external.exception.InvalidEventOutException Class Reference . . . . .	342
4.516.1 Detailed Description . . . . .	343
4.517 freeWRLSAI_cpp::invalidExecutionContextException Class Reference . . . . .	343
4.517.1 Detailed Description . . . . .	343
4.518 org.web3d.x3d.sai.InvalidExecutionContextException Class Reference . . . . .	344
4.518.1 Detailed Description . . . . .	344
4.519 vrml.InvalidExposedFieldException Class Reference . . . . .	344
4.519.1 Detailed Description . . . . .	344
4.520 vrml.InvalidFieldChangeException Class Reference . . . . .	345
4.520.1 Detailed Description . . . . .	345
4.521 org.web3d.x3d.sai.InvalidFieldException Class Reference . . . . .	345
4.521.1 Detailed Description . . . . .	345
4.522 freeWRLSAI_cpp::invalidFieldException Class Reference . . . . .	346
4.522.1 Detailed Description . . . . .	346
4.523 vrml.InvalidFieldException Class Reference . . . . .	346
4.523.1 Detailed Description . . . . .	347
4.524 org.web3d.x3d.sai.InvalidFieldValueException Class Reference . . . . .	347
4.524.1 Detailed Description . . . . .	347
4.525 freeWRLSAI_cpp::invalidImportException Class Reference . . . . .	347
4.525.1 Detailed Description . . . . .	348
4.526 org.web3d.x3d.sai.InvalidNameException Class Reference . . . . .	348
4.526.1 Detailed Description . . . . .	348
4.527 org.web3d.x3d.sai.InvalidNodeException Class Reference . . . . .	348
4.527.1 Detailed Description . . . . .	349
4.528 freeWRLSAI_cpp::invalidNodeException Class Reference . . . . .	349
4.528.1 Detailed Description . . . . .	349
4.529 vrml.external.exception.InvalidNodeException Class Reference . . . . .	349
4.529.1 Detailed Description . . . . .	350
4.529.2 Constructor & Destructor Documentation . . . . .	350
4.529.2.1 InvalidNodeException() . . . . .	350
4.530 org.web3d.x3d.sai.InvalidOperationTimingException Class Reference . . . . .	350
4.530.1 Detailed Description . . . . .	351
4.531 freeWRLSAI_cpp::invalidOperationTimingException Class Reference . . . . .	351
4.531.1 Detailed Description . . . . .	351
4.532 org.web3d.x3d.sai.InvalidProtoException Class Reference . . . . .	352
4.532.1 Detailed Description . . . . .	352
4.533 freeWRLSAI_cpp::InvalidReadableFieldException Class Reference . . . . .	352
4.533.1 Detailed Description . . . . .	353

4.534 vrml.InvalidRouteException Class Reference . . . . .	353
4.534.1 Detailed Description . . . . .	353
4.535 org.web3d.x3d.sai.InvalidRouteException Class Reference . . . . .	353
4.535.1 Detailed Description . . . . .	354
4.536 org.web3d.x3d.sai.InvalidURLErrorException Class Reference . . . . .	354
4.536.1 Detailed Description . . . . .	354
4.537 freeWRLSAI_cpp::invalidUrlException Class Reference . . . . .	354
4.537.1 Detailed Description . . . . .	355
4.538 vrml.external.exception.InvalidVrmlException Class Reference . . . . .	355
4.538.1 Detailed Description . . . . .	355
4.538.2 Constructor & Destructor Documentation . . . . .	355
4.538.2.1 InvalidVrmlException() . . . . .	355
4.539 vrml.InvalidVRMLSyntaxException Class Reference . . . . .	356
4.539.1 Detailed Description . . . . .	356
4.540 freeWRLSAI_cpp::InvalidWritableFieldException Class Reference . . . . .	356
4.540.1 Detailed Description . . . . .	357
4.541 freeWRLSAI_cpp::invalidX3DException Class Reference . . . . .	357
4.541.1 Detailed Description . . . . .	357
4.542 org.web3d.x3d.sai.InvalidX3DException Class Reference . . . . .	358
4.542.1 Detailed Description . . . . .	358
4.543 vrml.InvalidX3DSyntaxException Class Reference . . . . .	358
4.543.1 Detailed Description . . . . .	358
4.544 IsGroupOfPdu Struct Reference . . . . .	359
4.544.1 Detailed Description . . . . .	359
4.544.2 Field Documentation . . . . .	359
4.544.2.1 groupedEntityDescriptions . . . . .	359
4.545 IsPartOfPdu Struct Reference . . . . .	360
4.545.1 Detailed Description . . . . .	360
4.545.2 Field Documentation . . . . .	360
4.545.2.1 partLocation . . . . .	360
4.546 ivec2 Struct Reference . . . . .	360
4.546.1 Detailed Description . . . . .	361
4.547 ivec4 Struct Reference . . . . .	361
4.547.1 Detailed Description . . . . .	361
4.548 Jarcloc Class Reference . . . . .	361
4.548.1 Detailed Description . . . . .	361
4.549 JMATRIX Struct Reference . . . . .	362
4.549.1 Detailed Description . . . . .	362
4.550 JSON_config Struct Reference . . . . .	362
4.550.1 Detailed Description . . . . .	362
4.550.2 Field Documentation . . . . .	362
4.550.2.1 callback . . . . .	363

---

4.550.2.2 callback_ctx . . . . .	363
4.550.2.3 depth . . . . .	363
4.550.2.4 free . . . . .	363
4.550.2.5 malloc . . . . .	364
4.551 JSON_parser_struct Struct Reference . . . . .	364
4.551.1 Detailed Description . . . . .	364
4.552 JSON_value_struct Struct Reference . . . . .	365
4.552.1 Detailed Description . . . . .	365
4.553 key Struct Reference . . . . .	365
4.553.1 Detailed Description . . . . .	365
4.554 keyHit Struct Reference . . . . .	365
4.554.1 Detailed Description . . . . .	366
4.555 keyval Struct Reference . . . . .	366
4.555.1 Detailed Description . . . . .	366
4.556 Knotspec Struct Reference . . . . .	366
4.556.1 Detailed Description . . . . .	367
4.557 Knotvector Struct Reference . . . . .	367
4.557.1 Detailed Description . . . . .	368
4.558 LayerHeader Struct Reference . . . . .	368
4.558.1 Detailed Description . . . . .	368
4.559 layout_scale_item Struct Reference . . . . .	368
4.559.1 Detailed Description . . . . .	368
4.560 layoutmode Struct Reference . . . . .	369
4.560.1 Detailed Description . . . . .	369
4.561 LinearObjectStatePdu Struct Reference . . . . .	369
4.561.1 Detailed Description . . . . .	369
4.562 LinearSegmentParameter Struct Reference . . . . .	370
4.562.1 Detailed Description . . . . .	370
4.563 linkedlist_data_s Struct Reference . . . . .	370
4.563.1 Detailed Description . . . . .	370
4.564 linkedlist_datablock_internal_s Struct Reference . . . . .	371
4.564.1 Detailed Description . . . . .	371
4.565 LogisticsFamilyPdu Struct Reference . . . . .	371
4.565.1 Detailed Description . . . . .	371
4.566 macroblock Struct Reference . . . . .	371
4.566.1 Detailed Description . . . . .	372
4.567 Mapdesc Class Reference . . . . .	372
4.567.1 Detailed Description . . . . .	373
4.568 Maplist Class Reference . . . . .	373
4.568.1 Detailed Description . . . . .	374
4.569 Marking Struct Reference . . . . .	374
4.569.1 Detailed Description . . . . .	374

4.570 matpropstruct Struct Reference . . . . .	374
4.570.1 Detailed Description . . . . .	375
4.571 org.web3d.x3d.sai.Matrix Interface Reference . . . . .	375
4.571.1 Detailed Description . . . . .	375
4.572 org.web3d.x3d.sai.Matrix3 Class Reference . . . . .	375
4.572.1 Detailed Description . . . . .	376
4.573 org.web3d.x3d.sai.Matrix4 Class Reference . . . . .	376
4.573.1 Detailed Description . . . . .	377
4.574 mb_addr_inc_entry Struct Reference . . . . .	377
4.574.1 Detailed Description . . . . .	377
4.575 mb_type_entry Struct Reference . . . . .	377
4.575.1 Detailed Description . . . . .	377
4.576 Mesher Class Reference . . . . .	378
4.576.1 Detailed Description . . . . .	378
4.577 org.web3d.x3d.sai.MFBool Interface Reference . . . . .	378
4.577.1 Detailed Description . . . . .	379
4.578 vrml.field.MFColor Class Reference . . . . .	379
4.578.1 Detailed Description . . . . .	380
4.579 org.web3d.x3d.sai.MFColor Interface Reference . . . . .	380
4.579.1 Detailed Description . . . . .	380
4.580 org.web3d.x3d.sai.MFColorRGBA Interface Reference . . . . .	381
4.580.1 Detailed Description . . . . .	381
4.581 org.web3d.x3d.sai.MFDouble Interface Reference . . . . .	381
4.581.1 Detailed Description . . . . .	382
4.582 org.web3d.x3d.sai.MFFloat Interface Reference . . . . .	382
4.582.1 Detailed Description . . . . .	382
4.583 vrml.field.MFFloat Class Reference . . . . .	383
4.583.1 Detailed Description . . . . .	383
4.584 org.web3d.x3d.sai.MField Interface Reference . . . . .	384
4.584.1 Detailed Description . . . . .	384
4.585 vrml.MField Class Reference . . . . .	385
4.585.1 Detailed Description . . . . .	386
4.586 org.web3d.x3d.sai.MFImage Interface Reference . . . . .	386
4.586.1 Detailed Description . . . . .	386
4.587 org.web3d.x3d.sai.MFInt32 Interface Reference . . . . .	387
4.587.1 Detailed Description . . . . .	387
4.588 vrml.field.MFInt32 Class Reference . . . . .	387
4.588.1 Detailed Description . . . . .	388
4.589 org.web3d.x3d.sai.MFNode Interface Reference . . . . .	388
4.589.1 Detailed Description . . . . .	389
4.590 vrml.field.MFNode Class Reference . . . . .	389
4.590.1 Detailed Description . . . . .	390



4.591 org.web3d.x3d.sai.MFRotation Interface Reference . . . . .	390
4.591.1 Detailed Description . . . . .	390
4.592 vrml.field.MFRotation Class Reference . . . . .	391
4.592.1 Detailed Description . . . . .	391
4.593 org.web3d.x3d.sai.MFString Interface Reference . . . . .	392
4.593.1 Detailed Description . . . . .	392
4.594 vrml.field.MFString Class Reference . . . . .	392
4.594.1 Detailed Description . . . . .	393
4.595 org.web3d.x3d.sai.MFTime Interface Reference . . . . .	393
4.595.1 Detailed Description . . . . .	394
4.596 vrml.field.MFTime Class Reference . . . . .	394
4.596.1 Detailed Description . . . . .	395
4.597 org.web3d.x3d.sai.MFVec2d Interface Reference . . . . .	395
4.597.1 Detailed Description . . . . .	395
4.598 vrml.field.MFVec2f Class Reference . . . . .	396
4.598.1 Detailed Description . . . . .	396
4.599 org.web3d.x3d.sai.MFVec2f Interface Reference . . . . .	397
4.599.1 Detailed Description . . . . .	397
4.600 org.web3d.x3d.sai.MFVec3d Interface Reference . . . . .	397
4.600.1 Detailed Description . . . . .	398
4.601 vrml.field.MFVec3f Class Reference . . . . .	398
4.601.1 Detailed Description . . . . .	399
4.602 org.web3d.x3d.sai.MFVec3f Interface Reference . . . . .	399
4.602.1 Detailed Description . . . . .	399
4.603 MinefieldDataPdu Struct Reference . . . . .	400
4.603.1 Detailed Description . . . . .	400
4.603.2 Field Documentation . . . . .	400
4.603.2.1 pad3 . . . . .	401
4.604 MinefieldFamilyPdu Struct Reference . . . . .	401
4.604.1 Detailed Description . . . . .	401
4.605 MinefieldQueryPdu Struct Reference . . . . .	401
4.605.1 Detailed Description . . . . .	402
4.606 MinefieldResponseNackPdu Struct Reference . . . . .	402
4.606.1 Detailed Description . . . . .	402
4.607 MinefieldStatePdu Struct Reference . . . . .	402
4.607.1 Detailed Description . . . . .	403
4.608 mode_name Struct Reference . . . . .	403
4.608.1 Detailed Description . . . . .	403
4.609 ModulationType Struct Reference . . . . .	403
4.609.1 Detailed Description . . . . .	404
4.610 monoChain Class Reference . . . . .	404
4.610.1 Detailed Description . . . . .	404

4.611 Monotonizer Class Reference . . . . .	405
4.611.1 Detailed Description . . . . .	405
4.612 motion_vectors_entry Struct Reference . . . . .	405
4.612.1 Detailed Description . . . . .	405
4.613 Multi_Any Struct Reference . . . . .	405
4.613.1 Detailed Description . . . . .	405
4.614 Multi_Bool Struct Reference . . . . .	406
4.614.1 Detailed Description . . . . .	406
4.615 Multi_Color Struct Reference . . . . .	406
4.615.1 Detailed Description . . . . .	406
4.616 Multi_ColorRGBA Struct Reference . . . . .	406
4.616.1 Detailed Description . . . . .	407
4.617 Multi_Double Struct Reference . . . . .	407
4.617.1 Detailed Description . . . . .	407
4.618 Multi_Float Struct Reference . . . . .	407
4.618.1 Detailed Description . . . . .	407
4.619 Multi_Int32 Struct Reference . . . . .	408
4.619.1 Detailed Description . . . . .	408
4.620 Multi_Matrix3d Struct Reference . . . . .	408
4.620.1 Detailed Description . . . . .	408
4.621 Multi_Matrix3f Struct Reference . . . . .	408
4.621.1 Detailed Description . . . . .	409
4.622 Multi_Matrix4d Struct Reference . . . . .	409
4.622.1 Detailed Description . . . . .	409
4.623 Multi_Matrix4f Struct Reference . . . . .	409
4.623.1 Detailed Description . . . . .	409
4.624 Multi_Node Struct Reference . . . . .	410
4.624.1 Detailed Description . . . . .	410
4.625 Multi_Rotation Struct Reference . . . . .	410
4.625.1 Detailed Description . . . . .	410
4.626 Multi_String Struct Reference . . . . .	410
4.626.1 Detailed Description . . . . .	411
4.627 Multi_Time Struct Reference . . . . .	411
4.627.1 Detailed Description . . . . .	411
4.628 Multi_Vec2d Struct Reference . . . . .	411
4.628.1 Detailed Description . . . . .	411
4.629 Multi_Vec2f Struct Reference . . . . .	412
4.629.1 Detailed Description . . . . .	412
4.630 Multi_Vec3d Struct Reference . . . . .	412
4.630.1 Detailed Description . . . . .	412
4.631 Multi_Vec3f Struct Reference . . . . .	412
4.631.1 Detailed Description . . . . .	413

4.632 Multi_Vec4d Struct Reference . . . . .	413
4.632.1 Detailed Description . . . . .	413
4.633 Multi_Vec4f Struct Reference . . . . .	413
4.633.1 Detailed Description . . . . .	413
4.634 multiTexParams Struct Reference . . . . .	414
4.634.1 Detailed Description . . . . .	414
4.635 myArgs Struct Reference . . . . .	414
4.635.1 Detailed Description . . . . .	414
4.636 MyVertex Struct Reference . . . . .	414
4.636.1 Detailed Description . . . . .	415
4.637 name_num Struct Reference . . . . .	415
4.637.1 Detailed Description . . . . .	415
4.638 NamedLocation Struct Reference . . . . .	415
4.638.1 Detailed Description . . . . .	415
4.639 navmode Struct Reference . . . . .	416
4.639.1 Detailed Description . . . . .	416
4.640 vrml.node.Node Class Reference . . . . .	416
4.640.1 Detailed Description . . . . .	416
4.641 vrml.external.Node Class Reference . . . . .	416
4.641.1 Detailed Description . . . . .	417
4.642 nodedistance Struct Reference . . . . .	417
4.642.1 Detailed Description . . . . .	417
4.643 org.web3d.x3d.sai.NodeInUseException Class Reference . . . . .	417
4.643.1 Detailed Description . . . . .	418
4.644 freeWRLSAI_cpp::nodeInUseException Class Reference . . . . .	418
4.644.1 Detailed Description . . . . .	418
4.645 org.web3d.x3d.sai.NodeUnavailableException Class Reference . . . . .	418
4.645.1 Detailed Description . . . . .	419
4.646 freeWRLSAI_cpp::nodeUnavailableException Class Reference . . . . .	419
4.646.1 Detailed Description . . . . .	419
4.647 org.web3d.x3d.sai.NoSuchBrowserException Class Reference . . . . .	419
4.647.1 Detailed Description . . . . .	420
4.648 freeWRLSAI_cpp::noSuchBrowserException Class Reference . . . . .	420
4.648.1 Detailed Description . . . . .	420
4.649 freeWRLSAI_cpp::notSupportedException Class Reference . . . . .	420
4.649.1 Detailed Description . . . . .	421
4.650 org.web3d.x3d.sai.NotSupportedException Class Reference . . . . .	421
4.650.1 Detailed Description . . . . .	421
4.651 NPClass Struct Reference . . . . .	422
4.651.1 Detailed Description . . . . .	422
4.652 NPObject Struct Reference . . . . .	422
4.652.1 Detailed Description . . . . .	422

4.653 nsByteRange Struct Reference . . . . .	423
4.653.1 Detailed Description . . . . .	423
4.654 nsIAuthenticationInfo Interface Reference . . . . .	423
4.654.1 Detailed Description . . . . .	423
4.655 nsICookieStorage Interface Reference . . . . .	424
4.655.1 Detailed Description . . . . .	424
4.655.2 Member Function Documentation . . . . .	424
4.655.2.1 getCookie() . . . . .	424
4.655.2.2 setCookie() . . . . .	424
4.656 nsIFileUtilities Interface Reference . . . . .	425
4.656.1 Detailed Description . . . . .	425
4.656.2 Member Function Documentation . . . . .	426
4.656.2.1 getProgramPath() . . . . .	426
4.656.2.2 getTempDirPath() . . . . .	427
4.656.2.3 newTempFileName() . . . . .	427
4.657 nsIHTTPHeaderListener Interface Reference . . . . .	428
4.657.1 Detailed Description . . . . .	428
4.657.2 Member Function Documentation . . . . .	428
4.657.2.1 newResponseHeader() . . . . .	428
4.657.2.2 statusLine() . . . . .	429
4.658 nsIJVMAuthTools Interface Reference . . . . .	429
4.658.1 Detailed Description . . . . .	429
4.658.2 Member Function Documentation . . . . .	429
4.658.2.1 GetAuthenticationInfo() . . . . .	429
4.658.2.2 SetAuthenticationInfo() . . . . .	430
4.659 nsIPlugin Interface Reference . . . . .	430
4.659.1 Detailed Description . . . . .	431
4.659.2 Member Function Documentation . . . . .	431
4.659.2.1 createPluginInstance() . . . . .	431
4.659.2.2 getMIMEDescription() . . . . .	431
4.659.2.3 getValue() . . . . .	432
4.659.2.4 initialize() . . . . .	432
4.659.2.5 shutdown() . . . . .	433
4.660 nsIPluginDocument Interface Reference . . . . .	433
4.660.1 Detailed Description . . . . .	433
4.660.2 Field Documentation . . . . .	433
4.660.2.1 willHandleInstantiation . . . . .	434
4.661 nsIPluginHost Interface Reference . . . . .	434
4.661.1 Detailed Description . . . . .	435
4.661.2 Member Function Documentation . . . . .	435
4.661.2.1 findProxyForURL() . . . . .	435
4.661.2.2 getPluginName() . . . . .	436

4.661.2.3 getPluginTagForInstance()	436
4.661.2.4 GetURL()	436
4.661.2.5 instantiateDummyJavaPlugin()	437
4.661.2.6 instantiatePluginForChannel()	437
4.661.2.7 parsePostBufferToFixHeaders()	438
4.661.2.8 PostURL()	438
4.661.2.9 reloadPlugins()	439
4.662 nsIPluginHostOld Interface Reference	439
4.662.1 Detailed Description	440
4.662.2 Member Function Documentation	440
4.662.2.1 instantiatePluginForChannel()	440
4.663 nsIPluginInputStream Interface Reference	441
4.663.1 Detailed Description	441
4.664 nsIPluginInstance Interface Reference	441
4.664.1 Detailed Description	442
4.664.2 Member Function Documentation	443
4.664.2.1 getMimeType()	443
4.664.2.2 getValue()	443
4.664.2.3 handleEvent()	443
4.664.2.4 initialize()	444
4.664.2.5 newStreamFromPlugin()	444
4.664.2.6 newStreamToPlugin()	445
4.664.2.7 print()	445
4.664.2.8 setWindow()	446
4.664.2.9 showStatus()	446
4.664.2.10 start()	446
4.664.2.11 stop()	447
4.664.3 Field Documentation	447
4.664.3.1 JSContext	447
4.665 nsIPluginInstanceInternal Class Reference	447
4.665.1 Detailed Description	448
4.666 nsIPluginInstanceOld Interface Reference	448
4.666.1 Detailed Description	449
4.666.2 Member Function Documentation	449
4.666.2.1 destroy()	450
4.666.2.2 getValue()	450
4.666.2.3 handleEvent()	450
4.666.2.4 initialize()	451
4.666.2.5 newStream()	451
4.666.2.6 print()	452
4.666.2.7 setWindow()	452
4.666.2.8 start()	452

4.666.2.9 stop() . . . . .	453
4.666.3 Field Documentation . . . . .	453
4.666.3.1 peer . . . . .	453
4.667 nsIPluginInstanceOwner Interface Reference . . . . .	453
4.667.1 Detailed Description . . . . .	454
4.667.2 Member Function Documentation . . . . .	454
4.667.2.1 createWidget() . . . . .	454
4.667.2.2 GetURL() . . . . .	455
4.667.2.3 getWindow() . . . . .	455
4.668 nsIPluginInstancePeer Interface Reference . . . . .	455
4.668.1 Detailed Description . . . . .	456
4.668.2 Member Function Documentation . . . . .	456
4.668.2.1 getValue() . . . . .	456
4.668.2.2 newStream() . . . . .	457
4.668.2.3 setWindowSize() . . . . .	457
4.668.2.4 showStatus() . . . . .	458
4.668.3 Field Documentation . . . . .	458
4.668.3.1 MIMEType . . . . .	458
4.668.3.2 mode . . . . .	458
4.669 nsIPluginInstancePeer2 Interface Reference . . . . .	459
4.669.1 Detailed Description . . . . .	459
4.669.2 Field Documentation . . . . .	460
4.669.2.1 JSContext . . . . .	460
4.669.2.2 JSThread . . . . .	460
4.669.2.3 JSWindow . . . . .	460
4.670 nsIPluginInstancePeer2_1_9_1_BRANCH Interface Reference . . . . .	461
4.670.1 Detailed Description . . . . .	461
4.671 nsIPluginManager Interface Reference . . . . .	462
4.671.1 Detailed Description . . . . .	462
4.671.2 Member Function Documentation . . . . .	462
4.671.2.1 GetURL() . . . . .	463
4.671.2.2 GetURLWithHeaders() . . . . .	463
4.671.2.3 GetValue() . . . . .	464
4.671.2.4 PostURL() . . . . .	464
4.671.2.5 RegisterPlugin() . . . . .	465
4.671.2.6 reloadPlugins() . . . . .	466
4.671.2.7 UnregisterPlugin() . . . . .	466
4.671.2.8 UserAgent() . . . . .	466
4.672 nsIPluginManager2 Interface Reference . . . . .	467
4.672.1 Detailed Description . . . . .	468
4.672.2 Member Function Documentation . . . . .	468
4.672.2.1 allocateMenuID() . . . . .	468

4.672.2.2 beginWaitCursor()	468
4.672.2.3 deallocateMenuID()	468
4.672.2.4 endWaitCursor()	469
4.672.2.5 findProxyForURL()	469
4.672.2.6 hasAllocatedMenuID()	469
4.672.2.7 notifyStatusChange()	470
4.672.2.8 registerWindow()	470
4.672.2.9 supportsURLProtocol()	471
4.672.2.10 unregisterWindow()	471
4.673 nsIPluginOld Interface Reference	472
4.673.1 Detailed Description	472
4.673.2 Member Function Documentation	472
4.673.2.1 createPluginInstance()	473
4.673.2.2 getMIMEDescription()	473
4.673.2.3 getValue()	473
4.673.2.4 initialize()	474
4.673.2.5 shutdown()	474
4.674 nsIPluginStreamInfo Interface Reference	474
4.674.1 Detailed Description	475
4.675 nsIPluginStreamListener Interface Reference	475
4.675.1 Detailed Description	476
4.675.2 Member Function Documentation	476
4.675.2.1 onDataAvailable()	476
4.675.2.2 onFileAvailable()	477
4.675.2.3 onStartBinding()	477
4.675.2.4 onStopBinding()	477
4.675.3 Field Documentation	478
4.675.3.1 streamType	478
4.676 nsIPluginTag Interface Reference	478
4.676.1 Detailed Description	479
4.677 nsIPluginTagInfo Interface Reference	479
4.677.1 Detailed Description	480
4.677.2 Member Function Documentation	480
4.677.2.1 getAttribute()	480
4.677.2.2 getAttributes()	481
4.677.2.3 getParameter()	481
4.677.2.4 getParameters()	481
4.677.3 Field Documentation	481
4.677.3.1 DOMEElement	481
4.677.3.2 tagType	482
4.678 nsIPluginTagInfo2 Interface Reference	482
4.678.1 Detailed Description	483

4.678.2 Member Function Documentation . . . . .	483
4.678.2.1 getParameter() . . . . .	484
4.678.2.2 getParameters() . . . . .	485
4.678.3 Field Documentation . . . . .	485
4.678.3.1 DOMElement . . . . .	485
4.678.3.2 tagType . . . . .	485
4.679 nsIPluginTagInfoOld Interface Reference . . . . .	486
4.679.1 Detailed Description . . . . .	486
4.679.2 Member Function Documentation . . . . .	486
4.679.2.1 getAttribute() . . . . .	486
4.679.2.2 getAttributes() . . . . .	487
4.680 nsIScriptablePlugin Interface Reference . . . . .	487
4.680.1 Detailed Description . . . . .	488
4.680.2 Field Documentation . . . . .	488
4.680.2.1 scriptableInterface . . . . .	488
4.680.2.2 scriptablePeer . . . . .	488
4.681 nsIWindowlessPluginInstancePeer Interface Reference . . . . .	488
4.681.1 Detailed Description . . . . .	489
4.682 nsPIPluginInstancePeer Interface Reference . . . . .	489
4.682.1 Detailed Description . . . . .	489
4.683 nsPluginEmbedPrint Struct Reference . . . . .	489
4.683.1 Detailed Description . . . . .	490
4.684 nsPluginEvent Struct Reference . . . . .	490
4.684.1 Detailed Description . . . . .	490
4.685 nsPluginFullPrint Struct Reference . . . . .	490
4.685.1 Detailed Description . . . . .	490
4.686 nsPluginLogging Class Reference . . . . .	490
4.686.1 Detailed Description . . . . .	491
4.687 nsPluginNativeWindow Class Reference . . . . .	491
4.687.1 Detailed Description . . . . .	491
4.687.2 Member Function Documentation . . . . .	491
4.687.2.1 GetPluginInstance() . . . . .	492
4.688 nsPluginPrint Struct Reference . . . . .	492
4.688.1 Detailed Description . . . . .	492
4.689 nsPluginRect Struct Reference . . . . .	492
4.689.1 Detailed Description . . . . .	493
4.690 nsPluginWindow Struct Reference . . . . .	493
4.690.1 Detailed Description . . . . .	493
4.691 NurbsTessellator Class Reference . . . . .	493
4.691.1 Detailed Description . . . . .	494
4.692 O_curve Struct Reference . . . . .	495
4.692.1 Detailed Description . . . . .	495



---

4.693 O_nurbcurve Struct Reference . . . . .	495
4.693.1 Detailed Description . . . . .	496
4.694 O_nurbssurface Struct Reference . . . . .	496
4.694.1 Detailed Description . . . . .	496
4.695 O_pwlcurve Class Reference . . . . .	497
4.695.1 Detailed Description . . . . .	497
4.696 O_surface Struct Reference . . . . .	497
4.696.1 Detailed Description . . . . .	498
4.697 O_trim Struct Reference . . . . .	498
4.697.1 Detailed Description . . . . .	498
4.698 ObjectType Struct Reference . . . . .	498
4.698.1 Detailed Description . . . . .	499
4.699 OneByteChunk Struct Reference . . . . .	499
4.699.1 Detailed Description . . . . .	499
4.700 OpenGLCurveEvaluator Class Reference . . . . .	499
4.700.1 Detailed Description . . . . .	501
4.701 OpenGLSurfaceEvaluator Class Reference . . . . .	501
4.701.1 Detailed Description . . . . .	502
4.702 opened_file Struct Reference . . . . .	502
4.702.1 Detailed Description . . . . .	502
4.703 orient_XYZA Struct Reference . . . . .	503
4.703.1 Detailed Description . . . . .	503
4.704 Orientation Struct Reference . . . . .	503
4.704.1 Detailed Description . . . . .	503
4.705 particle Struct Reference . . . . .	503
4.705.1 Detailed Description . . . . .	504
4.706 Patch Class Reference . . . . .	504
4.706.1 Detailed Description . . . . .	504
4.707 Patchlist Class Reference . . . . .	504
4.707.1 Detailed Description . . . . .	505
4.708 Patchspec Struct Reference . . . . .	505
4.708.1 Detailed Description . . . . .	505
4.709 pBindable Struct Reference . . . . .	506
4.709.1 Detailed Description . . . . .	506
4.710 pcollision Struct Reference . . . . .	506
4.710.1 Detailed Description . . . . .	506
4.711 pcommon Struct Reference . . . . .	507
4.711.1 Detailed Description . . . . .	507
4.712 pComponent_CubeMapTexturing Struct Reference . . . . .	507
4.712.1 Detailed Description . . . . .	508
4.713 pComponent_EnvionSensor Struct Reference . . . . .	508
4.713.1 Detailed Description . . . . .	508

---

---

4.714 pComponent_Followers Struct Reference . . . . .	508
4.714.1 Detailed Description . . . . .	508
4.715 pComponent_Geometry3D Struct Reference . . . . .	508
4.715.1 Detailed Description . . . . .	509
4.716 pComponent_Geospatial Struct Reference . . . . .	509
4.716.1 Detailed Description . . . . .	509
4.717 pComponent_HAnim Struct Reference . . . . .	509
4.717.1 Detailed Description . . . . .	509
4.718 pComponent_KeyDevice Struct Reference . . . . .	509
4.718.1 Detailed Description . . . . .	510
4.719 pComponent_Layering Struct Reference . . . . .	510
4.719.1 Detailed Description . . . . .	510
4.720 pComponent_Layout Struct Reference . . . . .	510
4.720.1 Detailed Description . . . . .	510
4.721 pComponent_NURBS Struct Reference . . . . .	510
4.721.1 Detailed Description . . . . .	511
4.722 pComponent_ParticleSystems Struct Reference . . . . .	511
4.722.1 Detailed Description . . . . .	511
4.723 pComponent_Picking Struct Reference . . . . .	511
4.723.1 Detailed Description . . . . .	511
4.724 pComponent_ProgrammableShaders Struct Reference . . . . .	511
4.724.1 Detailed Description . . . . .	512
4.725 pComponent_Rendering Struct Reference . . . . .	512
4.725.1 Detailed Description . . . . .	512
4.726 pComponent_RigidBodyPhysics Struct Reference . . . . .	512
4.726.1 Detailed Description . . . . .	512
4.727 pComponent_Shape Struct Reference . . . . .	512
4.727.1 Detailed Description . . . . .	513
4.728 pComponent_Sound Struct Reference . . . . .	513
4.728.1 Detailed Description . . . . .	513
4.729 pComponent_Text Struct Reference . . . . .	513
4.729.1 Detailed Description . . . . .	514
4.730 pComponent_VolumeRendering Struct Reference . . . . .	514
4.730.1 Detailed Description . . . . .	515
4.731 pConsoleMessage Struct Reference . . . . .	515
4.731.1 Detailed Description . . . . .	515
4.732 pCParse Struct Reference . . . . .	515
4.732.1 Detailed Description . . . . .	515
4.733 pCParseParser Struct Reference . . . . .	516
4.733.1 Detailed Description . . . . .	516
4.734 pCRoutes Struct Reference . . . . .	516
4.734.1 Detailed Description . . . . .	516

---

4.735 pCScripts Struct Reference . . . . .	517
4.735.1 Detailed Description . . . . .	517
4.736 pCursorDraw Struct Reference . . . . .	517
4.736.1 Detailed Description . . . . .	517
4.737 pdisplay Struct Reference . . . . .	517
4.737.1 Detailed Description . . . . .	517
4.738 Pdu Struct Reference . . . . .	518
4.738.1 Detailed Description . . . . .	518
4.738.2 Field Documentation . . . . .	518
4.738.2.1 protocolVersion . . . . .	518
4.739 PduContainer Struct Reference . . . . .	518
4.739.1 Detailed Description . . . . .	519
4.740 pEAI_C_CommonFunctions Struct Reference . . . . .	519
4.740.1 Detailed Description . . . . .	519
4.741 pEAICore Struct Reference . . . . .	519
4.741.1 Detailed Description . . . . .	519
4.742 pEAIEventsIn Struct Reference . . . . .	519
4.742.1 Detailed Description . . . . .	520
4.743 pEAHelpers Struct Reference . . . . .	520
4.743.1 Detailed Description . . . . .	520
4.744 pedal_state Struct Reference . . . . .	520
4.744.1 Detailed Description . . . . .	520
4.745 pFrustum Struct Reference . . . . .	521
4.745.1 Detailed Description . . . . .	521
4.746 pict Struct Reference . . . . .	521
4.746.1 Detailed Description . . . . .	521
4.747 pict_image Struct Reference . . . . .	522
4.747.1 Detailed Description . . . . .	522
4.748 Planet Struct Reference . . . . .	522
4.748.1 Detailed Description . . . . .	522
4.749 pLoadTextures Struct Reference . . . . .	522
4.749.1 Detailed Description . . . . .	523
4.750 pMainloop Struct Reference . . . . .	523
4.750.1 Detailed Description . . . . .	524
4.751 Point Struct Reference . . . . .	524
4.751.1 Detailed Description . . . . .	524
4.752 point_XYZ Struct Reference . . . . .	525
4.752.1 Detailed Description . . . . .	525
4.753 point_XYZ3 Struct Reference . . . . .	525
4.753.1 Detailed Description . . . . .	525
4.754 pointer2pointer Struct Reference . . . . .	525
4.754.1 Detailed Description . . . . .	525

4.755 PointObjectStatePdu Struct Reference . . . . .	526
4.755.1 Detailed Description . . . . .	526
4.756 polygon Struct Reference . . . . .	526
4.756.1 Detailed Description . . . . .	527
4.757 polyrep_combiner_data Struct Reference . . . . .	527
4.757.1 Detailed Description . . . . .	527
4.758 Pool Class Reference . . . . .	527
4.758.1 Detailed Description . . . . .	528
4.759 PooledObj Class Reference . . . . .	528
4.759.1 Detailed Description . . . . .	529
4.760 pOpenGL_Utils Struct Reference . . . . .	529
4.760.1 Detailed Description . . . . .	529
4.761 pPluginSocket Struct Reference . . . . .	529
4.761.1 Detailed Description . . . . .	530
4.762 ppluginUtils Struct Reference . . . . .	530
4.762.1 Detailed Description . . . . .	530
4.763 pProdCon Struct Reference . . . . .	530
4.763.1 Detailed Description . . . . .	530
4.764 PQhandleElem Struct Reference . . . . .	531
4.764.1 Detailed Description . . . . .	531
4.765 PQnode Struct Reference . . . . .	531
4.765.1 Detailed Description . . . . .	531
4.766 pRasterFont Struct Reference . . . . .	531
4.766.1 Detailed Description . . . . .	531
4.767 pRenderFuncs Struct Reference . . . . .	532
4.767.1 Detailed Description . . . . .	533
4.768 pRenderTextures Struct Reference . . . . .	533
4.768.1 Detailed Description . . . . .	533
4.769 presources Struct Reference . . . . .	533
4.769.1 Detailed Description . . . . .	533
4.770 primStream Class Reference . . . . .	534
4.770.1 Detailed Description . . . . .	534
4.771 PriorityQ Struct Reference . . . . .	534
4.771.1 Detailed Description . . . . .	535
4.772 profile_entry Struct Reference . . . . .	535
4.772.1 Detailed Description . . . . .	535
4.773 org.web3d.x3d.sai.ProfileInfo Interface Reference . . . . .	535
4.773.1 Detailed Description . . . . .	536
4.774 proftablestruct Struct Reference . . . . .	536
4.774.1 Detailed Description . . . . .	536
4.775 Property Struct Reference . . . . .	536
4.775.1 Detailed Description . . . . .	537

4.776 PropulsionSystemData Struct Reference . . . . .	537
4.776.1 Detailed Description . . . . .	537
4.777 ProtoDefinition Struct Reference . . . . .	537
4.777.1 Detailed Description . . . . .	537
4.778 ProtoFieldDecl Struct Reference . . . . .	538
4.778.1 Detailed Description . . . . .	538
4.779 pSensInterps Struct Reference . . . . .	538
4.779.1 Detailed Description . . . . .	538
4.780 pSnapshot Struct Reference . . . . .	538
4.780.1 Detailed Description . . . . .	539
4.781 Pspec Struct Reference . . . . .	539
4.781.1 Detailed Description . . . . .	539
4.782 PSStruct Struct Reference . . . . .	539
4.782.1 Detailed Description . . . . .	540
4.783 pstatusbar Struct Reference . . . . .	540
4.783.1 Detailed Description . . . . .	540
4.784 pStreamPoly Struct Reference . . . . .	540
4.784.1 Detailed Description . . . . .	540
4.785 pTess Struct Reference . . . . .	541
4.785.1 Detailed Description . . . . .	541
4.786 pTextures Struct Reference . . . . .	541
4.786.1 Detailed Description . . . . .	541
4.787 pViewer Struct Reference . . . . .	541
4.787.1 Detailed Description . . . . .	542
4.788 PwlArc Class Reference . . . . .	542
4.788.1 Detailed Description . . . . .	542
4.789 pX3DParser Struct Reference . . . . .	542
4.789.1 Detailed Description . . . . .	543
4.790 quaternion Struct Reference . . . . .	543
4.790.1 Detailed Description . . . . .	543
4.791 Quilt Class Reference . . . . .	543
4.791.1 Detailed Description . . . . .	544
4.792 Quiltspec Struct Reference . . . . .	544
4.792.1 Detailed Description . . . . .	544
4.793 RadioCommunicationsFamilyPdu Struct Reference . . . . .	544
4.793.1 Detailed Description . . . . .	545
4.794 RadioEntityType Struct Reference . . . . .	545
4.794.1 Detailed Description . . . . .	545
4.795 rb1 Struct Reference . . . . .	545
4.795.1 Detailed Description . . . . .	545
4.796 ReceiverPdu Struct Reference . . . . .	546
4.796.1 Detailed Description . . . . .	546

4.797 RecordQueryReliablePdu Struct Reference . . . . .	546
4.797.1 Detailed Description . . . . .	547
4.797.2 Field Documentation . . . . .	547
4.797.2.1 pad1 . . . . .	547
4.798 RecordSet Struct Reference . . . . .	547
4.798.1 Detailed Description . . . . .	547
4.799 rectBlock Class Reference . . . . .	548
4.799.1 Detailed Description . . . . .	548
4.800 rectBlockArray Class Reference . . . . .	548
4.800.1 Detailed Description . . . . .	548
4.801 reflexChain Class Reference . . . . .	549
4.801.1 Detailed Description . . . . .	549
4.802 Relationship Struct Reference . . . . .	549
4.802.1 Detailed Description . . . . .	549
4.803 RemoveEntityPdu Struct Reference . . . . .	549
4.803.1 Detailed Description . . . . .	550
4.804 RemoveEntityReliablePdu Struct Reference . . . . .	550
4.804.1 Detailed Description . . . . .	550
4.805 Renderhints Class Reference . . . . .	550
4.805.1 Detailed Description . . . . .	551
4.806 RepairCompletePdu Struct Reference . . . . .	551
4.806.1 Detailed Description . . . . .	551
4.807 RepairResponsePdu Struct Reference . . . . .	551
4.807.1 Detailed Description . . . . .	552
4.808 resource_item Struct Reference . . . . .	552
4.808.1 Detailed Description . . . . .	552
4.809 ResupplyCancelPdu Struct Reference . . . . .	553
4.809.1 Detailed Description . . . . .	553
4.810 ResupplyOfferPdu Struct Reference . . . . .	553
4.810.1 Detailed Description . . . . .	553
4.811 ResupplyReceivedPdu Struct Reference . . . . .	554
4.811.1 Detailed Description . . . . .	554
4.812 row32 Struct Reference . . . . .	554
4.812.1 Detailed Description . . . . .	554
4.813 s_renderer_capabilities_t Struct Reference . . . . .	555
4.813.1 Detailed Description . . . . .	555
4.814 s_shader_capabilities Struct Reference . . . . .	555
4.814.1 Detailed Description . . . . .	556
4.815 freeWRLSAI_cpp::saiBrowser Class Reference . . . . .	557
4.815.1 Detailed Description . . . . .	557
4.816 freeWRLSAI_cpp::saiComponent Class Reference . . . . .	557
4.816.1 Detailed Description . . . . .	558

4.817 freeWRLSAI_cpp::saiCustomException Class Reference . . . . .	558
4.817.1 Detailed Description . . . . .	558
4.818 freeWRLSAI_cpp::saiException Class Reference . . . . .	559
4.818.1 Detailed Description . . . . .	559
4.819 freeWRLSAI_cpp::saiExecutionContext Class Reference . . . . .	560
4.819.1 Detailed Description . . . . .	560
4.820 freeWRLSAI_cpp::saiField Class Reference . . . . .	560
4.820.1 Detailed Description . . . . .	561
4.821 freeWRLSAI_cpp::saiNode Class Reference . . . . .	561
4.821.1 Detailed Description . . . . .	561
4.822 freeWRLSAI_cpp::saiProfileDeclaration Class Reference . . . . .	561
4.822.1 Detailed Description . . . . .	561
4.823 freeWRLSAI_cpp::saiProto Class Reference . . . . .	561
4.823.1 Detailed Description . . . . .	562
4.824 freeWRLSAI_cpp::saiRoute Class Reference . . . . .	562
4.824.1 Detailed Description . . . . .	562
4.825 freeWRLSAI_cpp::saiScene Class Reference . . . . .	562
4.825.1 Detailed Description . . . . .	563
4.826 sampledLine Class Reference . . . . .	563
4.826.1 Detailed Description . . . . .	563
4.827 sCollisionGeometry Struct Reference . . . . .	563
4.827.1 Detailed Description . . . . .	564
4.828 sCollisionInfo Struct Reference . . . . .	564
4.828.1 Detailed Description . . . . .	564
4.829 screentextdata Struct Reference . . . . .	564
4.829.1 Detailed Description . . . . .	564
4.830 vrml.node.Script Class Reference . . . . .	565
4.830.1 Detailed Description . . . . .	565
4.831 ScriptablePluginObjectBase Class Reference . . . . .	565
4.831.1 Detailed Description . . . . .	566
4.832 ScriptFieldDecl Struct Reference . . . . .	567
4.832.1 Detailed Description . . . . .	567
4.833 ScriptFieldInstanceInfo Struct Reference . . . . .	567
4.833.1 Detailed Description . . . . .	567
4.834 ScriptParamList Struct Reference . . . . .	567
4.834.1 Detailed Description . . . . .	568
4.835 SeesPdu Struct Reference . . . . .	568
4.835.1 Detailed Description . . . . .	568
4.836 SensStruct Struct Reference . . . . .	568
4.836.1 Detailed Description . . . . .	569
4.837 ServiceRequestPdu Struct Reference . . . . .	569
4.837.1 Detailed Description . . . . .	569

4.838 SetDataPdu Struct Reference . . . . .	569
4.838.1 Detailed Description . . . . .	570
4.839 SetDataReliablePdu Struct Reference . . . . .	570
4.839.1 Detailed Description . . . . .	570
4.840 SetRecordReliablePdu Struct Reference . . . . .	571
4.840.1 Detailed Description . . . . .	571
4.840.2 Field Documentation . . . . .	571
4.840.2.1 pad1 . . . . .	571
4.841 sFallInfo Struct Reference . . . . .	572
4.841.1 Detailed Description . . . . .	572
4.842 org.web3d.x3d.sai.SFBool Interface Reference . . . . .	572
4.842.1 Detailed Description . . . . .	573
4.843 vrml.field.SFBool Class Reference . . . . .	573
4.843.1 Detailed Description . . . . .	573
4.844 vrml.field.SFColor Class Reference . . . . .	574
4.844.1 Detailed Description . . . . .	574
4.845 SFColor Struct Reference . . . . .	574
4.845.1 Detailed Description . . . . .	575
4.846 org.web3d.x3d.sai.SFColor Interface Reference . . . . .	575
4.846.1 Detailed Description . . . . .	575
4.847 SFColorRGBA Struct Reference . . . . .	575
4.847.1 Detailed Description . . . . .	576
4.848 org.web3d.x3d.sai.SFColorRGBA Interface Reference . . . . .	576
4.848.1 Detailed Description . . . . .	576
4.849 org.web3d.x3d.sai.SFDouble Interface Reference . . . . .	576
4.849.1 Detailed Description . . . . .	577
4.850 vrml.field.SFFloat Class Reference . . . . .	577
4.850.1 Detailed Description . . . . .	577
4.851 org.web3d.x3d.sai.SFFloat Interface Reference . . . . .	578
4.851.1 Detailed Description . . . . .	578
4.852 vrml.field.SFImage Class Reference . . . . .	578
4.852.1 Detailed Description . . . . .	579
4.853 org.web3d.x3d.sai.SFImage Interface Reference . . . . .	579
4.853.1 Detailed Description . . . . .	579
4.854 org.web3d.x3d.sai.SFInt32 Interface Reference . . . . .	580
4.854.1 Detailed Description . . . . .	580
4.855 vrml.field.SFInt32 Class Reference . . . . .	580
4.855.1 Detailed Description . . . . .	581
4.856 SFMatrix3d Struct Reference . . . . .	581
4.856.1 Detailed Description . . . . .	581
4.857 SFMatrix3f Struct Reference . . . . .	581
4.857.1 Detailed Description . . . . .	581



4.858 SFMatrix4d Struct Reference . . . . .	581
4.858.1 Detailed Description . . . . .	582
4.859 SFMatrix4f Struct Reference . . . . .	582
4.859.1 Detailed Description . . . . .	582
4.860 org.web3d.x3d.sai.SFNode Interface Reference . . . . .	582
4.860.1 Detailed Description . . . . .	582
4.861 vrml.field.SFNode Class Reference . . . . .	583
4.861.1 Detailed Description . . . . .	583
4.862 SFRotation Struct Reference . . . . .	583
4.862.1 Detailed Description . . . . .	583
4.863 vrml.field.SFRotation Class Reference . . . . .	584
4.863.1 Detailed Description . . . . .	584
4.864 org.web3d.x3d.sai.SFRotation Interface Reference . . . . .	584
4.864.1 Detailed Description . . . . .	585
4.865 vrml.field.SFString Class Reference . . . . .	585
4.865.1 Detailed Description . . . . .	585
4.866 org.web3d.x3d.sai.SFString Interface Reference . . . . .	586
4.866.1 Detailed Description . . . . .	586
4.867 vrml.field.SFTime Class Reference . . . . .	586
4.867.1 Detailed Description . . . . .	587
4.868 org.web3d.x3d.sai.SFTime Interface Reference . . . . .	587
4.868.1 Detailed Description . . . . .	587
4.869 SFVec2d Struct Reference . . . . .	587
4.869.1 Detailed Description . . . . .	588
4.870 org.web3d.x3d.sai.SFVec2d Interface Reference . . . . .	588
4.870.1 Detailed Description . . . . .	588
4.871 vrml.field.SFVec2f Class Reference . . . . .	588
4.871.1 Detailed Description . . . . .	589
4.872 SFVec2f Struct Reference . . . . .	589
4.872.1 Detailed Description . . . . .	589
4.873 org.web3d.x3d.sai.SFVec2f Interface Reference . . . . .	589
4.873.1 Detailed Description . . . . .	590
4.874 SFVec3d Struct Reference . . . . .	590
4.874.1 Detailed Description . . . . .	590
4.875 org.web3d.x3d.sai.SFVec3d Interface Reference . . . . .	590
4.875.1 Detailed Description . . . . .	591
4.876 vrml.field.SFVec3f Class Reference . . . . .	591
4.876.1 Detailed Description . . . . .	591
4.877 SFVec3f Struct Reference . . . . .	592
4.877.1 Detailed Description . . . . .	592
4.878 org.web3d.x3d.sai.SFVec3f Interface Reference . . . . .	592
4.878.1 Detailed Description . . . . .	592

4.879 SFVec4d Struct Reference . . . . .	592
4.879.1 Detailed Description . . . . .	593
4.880 SFVec4f Struct Reference . . . . .	593
4.880.1 Detailed Description . . . . .	593
4.881 Shader_Script Struct Reference . . . . .	593
4.881.1 Detailed Description . . . . .	593
4.882 shaderflagsstruct Struct Reference . . . . .	594
4.882.1 Detailed Description . . . . .	594
4.883 shaderTableEntry Struct Reference . . . . .	594
4.883.1 Detailed Description . . . . .	594
4.884 ShaftRPMs Struct Reference . . . . .	594
4.884.1 Detailed Description . . . . .	595
4.885 SignalPdu Struct Reference . . . . .	595
4.885.1 Detailed Description . . . . .	595
4.886 SimulationAddress Struct Reference . . . . .	595
4.886.1 Detailed Description . . . . .	596
4.887 SimulationManagementFamilyPdu Struct Reference . . . . .	596
4.887.1 Detailed Description . . . . .	596
4.888 SimulationManagementWithReliabilityFamilyPdu Struct Reference . . . . .	596
4.888.1 Detailed Description . . . . .	596
4.889 SixByteChunk Struct Reference . . . . .	597
4.889.1 Detailed Description . . . . .	597
4.890 slice Struct Reference . . . . .	597
4.890.1 Detailed Description . . . . .	597
4.891 Slicer Class Reference . . . . .	597
4.891.1 Detailed Description . . . . .	598
4.892 sNavInfo Struct Reference . . . . .	598
4.892.1 Detailed Description . . . . .	598
4.893 SNDFILE Struct Reference . . . . .	599
4.893.1 Detailed Description . . . . .	599
4.894 Sorter Class Reference . . . . .	599
4.894.1 Detailed Description . . . . .	600
4.895 SphericalHarmonicAntennaPattern Struct Reference . . . . .	600
4.895.1 Detailed Description . . . . .	600
4.896 Splinespec Struct Reference . . . . .	600
4.896.1 Detailed Description . . . . .	601
4.897 ssr Struct Reference . . . . .	601
4.897.1 Detailed Description . . . . .	601
4.898 SSR_request Struct Reference . . . . .	601
4.898.1 Detailed Description . . . . .	602
4.899 stage Struct Reference . . . . .	602
4.899.1 Detailed Description . . . . .	602

4.900 StartResumePdu Struct Reference . . . . .	602
4.900.1 Detailed Description . . . . .	602
4.901 StartResumeReliablePdu Struct Reference . . . . .	603
4.901.1 Detailed Description . . . . .	603
4.902 StopFreezePdu Struct Reference . . . . .	603
4.902.1 Detailed Description . . . . .	603
4.903 StopFreezeReliablePdu Struct Reference . . . . .	604
4.903.1 Detailed Description . . . . .	604
4.904 StoredVertex Class Reference . . . . .	604
4.904.1 Detailed Description . . . . .	604
4.905 stringint Struct Reference . . . . .	605
4.905.1 Detailed Description . . . . .	605
4.906 Subdivider Class Reference . . . . .	605
4.906.1 Detailed Description . . . . .	605
4.907 SupplyQuantity Struct Reference . . . . .	606
4.907.1 Detailed Description . . . . .	606
4.908 surfEvalMachine Struct Reference . . . . .	606
4.908.1 Detailed Description . . . . .	606
4.909 sweepRange Struct Reference . . . . .	607
4.909.1 Detailed Description . . . . .	607
4.910 SyntheticEnvironmentFamilyPdu Struct Reference . . . . .	607
4.910.1 Detailed Description . . . . .	607
4.911 SystemID Struct Reference . . . . .	607
4.911.1 Detailed Description . . . . .	608
4.912 targetwindow Struct Reference . . . . .	608
4.912.1 Detailed Description . . . . .	608
4.913 iiglobal::tBindable Struct Reference . . . . .	608
4.913.1 Detailed Description . . . . .	608
4.914 iiglobal::tcollision Struct Reference . . . . .	609
4.914.1 Detailed Description . . . . .	609
4.915 iiglobal::tcommon Struct Reference . . . . .	609
4.915.1 Detailed Description . . . . .	609
4.916 iiglobal::tComponent_CubeMapTexturing Struct Reference . . . . .	609
4.916.1 Detailed Description . . . . .	609
4.917 iiglobal::tComponent_EnvironSensor Struct Reference . . . . .	610
4.917.1 Detailed Description . . . . .	610
4.918 iiglobal::tComponent_Followers Struct Reference . . . . .	610
4.918.1 Detailed Description . . . . .	610
4.919 iiglobal::tComponent_Geometry3D Struct Reference . . . . .	610
4.919.1 Detailed Description . . . . .	610
4.920 iiglobal::tComponent_Geospatial Struct Reference . . . . .	611
4.920.1 Detailed Description . . . . .	611

---

4.921	iiglobal::tComponent_HAnim Struct Reference . . . . .	611
4.921.1	Detailed Description . . . . .	611
4.922	iiglobal::tComponent_KeyDevice Struct Reference . . . . .	611
4.922.1	Detailed Description . . . . .	611
4.923	iiglobal::tComponent_Layering Struct Reference . . . . .	612
4.923.1	Detailed Description . . . . .	612
4.924	iiglobal::tComponent_Layout Struct Reference . . . . .	612
4.924.1	Detailed Description . . . . .	612
4.925	iiglobal::tComponent_NURBS Struct Reference . . . . .	612
4.925.1	Detailed Description . . . . .	612
4.926	iiglobal::tComponent_ParticleSystems Struct Reference . . . . .	613
4.926.1	Detailed Description . . . . .	613
4.927	iiglobal::tComponent_Picking Struct Reference . . . . .	613
4.927.1	Detailed Description . . . . .	613
4.928	iiglobal::tComponent_ProgrammableShaders Struct Reference . . . . .	613
4.928.1	Detailed Description . . . . .	613
4.929	iiglobal::tComponent_Rendering Struct Reference . . . . .	614
4.929.1	Detailed Description . . . . .	614
4.930	iiglobal::tComponent_RigidBodyPhysics Struct Reference . . . . .	614
4.930.1	Detailed Description . . . . .	614
4.931	iiglobal::tComponent_Shape Struct Reference . . . . .	614
4.931.1	Detailed Description . . . . .	614
4.932	iiglobal::tComponent_Sound Struct Reference . . . . .	615
4.932.1	Detailed Description . . . . .	615
4.933	iiglobal::tComponent_Text Struct Reference . . . . .	615
4.933.1	Detailed Description . . . . .	615
4.934	iiglobal::tComponent_VolumeRendering Struct Reference . . . . .	615
4.934.1	Detailed Description . . . . .	615
4.935	iiglobal::tComponent_VRML1 Struct Reference . . . . .	616
4.935.1	Detailed Description . . . . .	616
4.936	iiglobal::tConsoleMessage Struct Reference . . . . .	616
4.936.1	Detailed Description . . . . .	616
4.937	tcontenttype Struct Reference . . . . .	616
4.937.1	Detailed Description . . . . .	617
4.938	iiglobal::tCParse Struct Reference . . . . .	617
4.938.1	Detailed Description . . . . .	617
4.939	iiglobal::tCParseParser Struct Reference . . . . .	617
4.939.1	Detailed Description . . . . .	617
4.940	iiglobal::tCRoutes Struct Reference . . . . .	617
4.940.1	Detailed Description . . . . .	618
4.941	iiglobal::tCScripts Struct Reference . . . . .	618
4.941.1	Detailed Description . . . . .	618

---

4.942 iiglobal::tCursorDraw Struct Reference . . . . .	618
4.942.1 Detailed Description . . . . .	618
4.943 iiglobal::tdisplay Struct Reference . . . . .	618
4.943.1 Detailed Description . . . . .	619
4.944 iiglobal::tEAI_C_CommonFunctions Struct Reference . . . . .	619
4.944.1 Detailed Description . . . . .	619
4.945 iiglobal::tEAICore Struct Reference . . . . .	619
4.945.1 Detailed Description . . . . .	619
4.946 iiglobal::tEAIEventsIn Struct Reference . . . . .	619
4.946.1 Detailed Description . . . . .	620
4.947 iiglobal::tEAIHelpers Struct Reference . . . . .	620
4.947.1 Detailed Description . . . . .	620
4.948 text_combiner_data Struct Reference . . . . .	620
4.948.1 Detailed Description . . . . .	620
4.949 textureTableIndexStruct Struct Reference . . . . .	621
4.949.1 Detailed Description . . . . .	621
4.950 textureVertexInfo Struct Reference . . . . .	621
4.950.1 Detailed Description . . . . .	621
4.951 iiglobal::tFrustum Struct Reference . . . . .	622
4.951.1 Detailed Description . . . . .	622
4.952 iiglobal::tinternalc Struct Reference . . . . .	622
4.952.1 Detailed Description . . . . .	622
4.953 iiglobal::tLoadTextures Struct Reference . . . . .	622
4.953.1 Detailed Description . . . . .	623
4.954 tm_unz_s Struct Reference . . . . .	623
4.954.1 Detailed Description . . . . .	623
4.955 tm_zip_s Struct Reference . . . . .	623
4.955.1 Detailed Description . . . . .	623
4.956 iiglobal::tMainloop Struct Reference . . . . .	624
4.956.1 Detailed Description . . . . .	624
4.957 iiglobal::tOpenGL_Utils Struct Reference . . . . .	624
4.957.1 Detailed Description . . . . .	625
4.958 Touch Struct Reference . . . . .	625
4.958.1 Detailed Description . . . . .	625
4.959 iiglobal::tPluginSocket Struct Reference . . . . .	626
4.959.1 Detailed Description . . . . .	626
4.960 iiglobal::tpluginUtils Struct Reference . . . . .	626
4.960.1 Detailed Description . . . . .	626
4.961 iiglobal::tProdCon Struct Reference . . . . .	626
4.961.1 Detailed Description . . . . .	627
4.962 TrackJamTarget Struct Reference . . . . .	627
4.962.1 Detailed Description . . . . .	627

4.963 TransferControlRequestPdu Struct Reference . . . . .	627
4.963.1 Detailed Description . . . . .	628
4.964 TransmitterPdu Struct Reference . . . . .	628
4.964.1 Detailed Description . . . . .	629
4.965 treeNode Struct Reference . . . . .	629
4.965.1 Detailed Description . . . . .	629
4.966 iiglobal::tRenderFuncs Struct Reference . . . . .	629
4.966.1 Detailed Description . . . . .	630
4.967 trenderstate Struct Reference . . . . .	630
4.967.1 Detailed Description . . . . .	630
4.968 iiglobal::tRenderTextures Struct Reference . . . . .	630
4.968.1 Detailed Description . . . . .	630
4.969 iiglobal::tresources Struct Reference . . . . .	631
4.969.1 Detailed Description . . . . .	631
4.970 Trimline Class Reference . . . . .	631
4.970.1 Detailed Description . . . . .	631
4.971 TrimRegion Class Reference . . . . .	632
4.971.1 Detailed Description . . . . .	632
4.972 TrimVertex Class Reference . . . . .	632
4.972.1 Detailed Description . . . . .	633
4.973 TrimVertexPool Class Reference . . . . .	633
4.973.1 Detailed Description . . . . .	633
4.974 iiglobal::tSensInterps Struct Reference . . . . .	633
4.974.1 Detailed Description . . . . .	633
4.975 iiglobal::tSnapshot Struct Reference . . . . .	633
4.975.1 Detailed Description . . . . .	634
4.976 iiglobal::tstatusbar Struct Reference . . . . .	634
4.976.1 Detailed Description . . . . .	634
4.977 iiglobal::tStreamPoly Struct Reference . . . . .	634
4.977.1 Detailed Description . . . . .	634
4.978 iiglobal::tTess Struct Reference . . . . .	634
4.978.1 Detailed Description . . . . .	635
4.979 iiglobal::tTextures Struct Reference . . . . .	635
4.979.1 Detailed Description . . . . .	635
4.980 iiglobal::tthreads Struct Reference . . . . .	635
4.980.1 Detailed Description . . . . .	636
4.981 iiglobal::tViewer Struct Reference . . . . .	636
4.981.1 Detailed Description . . . . .	636
4.982 TwoByteChunk Struct Reference . . . . .	636
4.982.1 Detailed Description . . . . .	636
4.983 iiglobal::tX3DParser Struct Reference . . . . .	636
4.983.1 Detailed Description . . . . .	637

4.984 UaPdu Struct Reference . . . . .	637
4.984.1 Detailed Description . . . . .	637
4.984.2 Field Documentation . . . . .	637
4.984.2.1 passiveParameterIndex . . . . .	638
4.984.2.2 propulsionPlantConfiguration . . . . .	638
4.985 Uarray Class Reference . . . . .	638
4.985.1 Detailed Description . . . . .	638
4.986 un1 Union Reference . . . . .	639
4.986.1 Detailed Description . . . . .	639
4.987 unca Struct Reference . . . . .	639
4.987.1 Detailed Description . . . . .	639
4.988 Uni_String Struct Reference . . . . .	639
4.988.1 Detailed Description . . . . .	640
4.989 unitsB Struct Reference . . . . .	640
4.989.1 Detailed Description . . . . .	640
4.990 vrml.external.FreeWRLEAI.UnsupportedFieldTypeException Class Reference . . . . .	640
4.990.1 Detailed Description . . . . .	641
4.991 sai.eai.UnsupportedFieldTypeException Class Reference . . . . .	641
4.991.1 Detailed Description . . . . .	641
4.992 unz64_file_pos_s Struct Reference . . . . .	641
4.992.1 Detailed Description . . . . .	641
4.993 unz64_s Struct Reference . . . . .	642
4.993.1 Detailed Description . . . . .	642
4.994 unz_file_info64_internal_s Struct Reference . . . . .	642
4.994.1 Detailed Description . . . . .	642
4.995 unz_file_info64_s Struct Reference . . . . .	643
4.995.1 Detailed Description . . . . .	643
4.996 unz_file_info_s Struct Reference . . . . .	643
4.996.1 Detailed Description . . . . .	644
4.997 unz_file_pos_s Struct Reference . . . . .	644
4.997.1 Detailed Description . . . . .	644
4.998 unz_global_info64_s Struct Reference . . . . .	644
4.998.1 Detailed Description . . . . .	644
4.999 unz_global_info_s Struct Reference . . . . .	644
4.999.1 Detailed Description . . . . .	645
4.1000 org.web3d.x3d.sai.URLUnavailableException Class Reference . . . . .	645
4.1000.1 Detailed Description . . . . .	645
4.1001 freeWRLSAI_cpp::urlUnavailableException Class Reference . . . . .	645
4.1001.1 Detailed Description . . . . .	646
4.1002 usehit Struct Reference . . . . .	646
4.1002.1 Detailed Description . . . . .	646
4.1003 VariableDatum Struct Reference . . . . .	646

---

4.1003.1 Detailed Description . . . . .	647
4.1004 Varray Class Reference . . . . .	647
4.1004.1 Detailed Description . . . . .	647
4.1005 vec2 Struct Reference . . . . .	647
4.1005.1 Detailed Description . . . . .	647
4.1006 vec4 Struct Reference . . . . .	648
4.1006.1 Detailed Description . . . . .	648
4.1007 Vector Struct Reference . . . . .	648
4.1007.1 Detailed Description . . . . .	648
4.1008 Vector3Double Struct Reference . . . . .	648
4.1008.1 Detailed Description . . . . .	649
4.1009 Vector3Float Struct Reference . . . . .	649
4.1009.1 Detailed Description . . . . .	649
4.1010 VectoringNozzleSystemData Struct Reference . . . . .	649
4.1010.1 Detailed Description . . . . .	649
4.1011 vertexArray Class Reference . . . . .	650
4.1011.1 Detailed Description . . . . .	650
4.1012 sai.eai.VField Class Reference . . . . .	650
4.1012.1 Detailed Description . . . . .	652
4.1013 vrml.external.FreeWRLEAI.VField Class Reference . . . . .	652
4.1013.1 Detailed Description . . . . .	653
4.1014 vid_stream Struct Reference . . . . .	653
4.1014.1 Detailed Description . . . . .	654
4.1015 viewer Struct Reference . . . . .	655
4.1015.1 Detailed Description . . . . .	656
4.1016 viewer_examine Struct Reference . . . . .	656
4.1016.1 Detailed Description . . . . .	656
4.1017 viewer_fly Struct Reference . . . . .	657
4.1017.1 Detailed Description . . . . .	657
4.1018 viewer_inplane Struct Reference . . . . .	657
4.1018.1 Detailed Description . . . . .	657
4.1019 viewer_walk Struct Reference . . . . .	657
4.1019.1 Detailed Description . . . . .	658
4.1020 viewer_ypz Struct Reference . . . . .	658
4.1020.1 Detailed Description . . . . .	658
4.1021 sai.eai.VIP Class Reference . . . . .	658
4.1021.1 Detailed Description . . . . .	659
4.1022 vrml.external.FreeWRLEAI.VIP Class Reference . . . . .	659
4.1022.1 Detailed Description . . . . .	660
4.1023 sai.eai.VMFCOLOR Class Reference . . . . .	660
4.1023.1 Detailed Description . . . . .	660
4.1024 vrml.external.FreeWRLEAI.VMFCOLOR Class Reference . . . . .	660

---



4.1024.1 Detailed Description . . . . .	661
4.1025 sai.eai.VMFFloat Class Reference . . . . .	661
4.1025.1 Detailed Description . . . . .	661
4.1026 vrml.external.FreeWRLEAI.VMFFloat Class Reference . . . . .	662
4.1026.1 Detailed Description . . . . .	662
4.1027 sai.eai.VMFInt32 Class Reference . . . . .	662
4.1027.1 Detailed Description . . . . .	663
4.1028 vrml.external.FreeWRLEAI.VMFInt32 Class Reference . . . . .	663
4.1028.1 Detailed Description . . . . .	663
4.1029 sai.eai.VMFRotation Class Reference . . . . .	663
4.1029.1 Detailed Description . . . . .	664
4.1030 vrml.external.FreeWRLEAI.VMFRotation Class Reference . . . . .	664
4.1030.1 Detailed Description . . . . .	664
4.1031 sai.eai.VMFString Class Reference . . . . .	665
4.1031.1 Detailed Description . . . . .	665
4.1032 vrml.external.FreeWRLEAI.VMFString Class Reference . . . . .	665
4.1032.1 Detailed Description . . . . .	666
4.1033 vrml.external.FreeWRLEAI.VMFVec2f Class Reference . . . . .	666
4.1033.1 Detailed Description . . . . .	666
4.1034 sai.eai.VMFVec2f Class Reference . . . . .	666
4.1034.1 Detailed Description . . . . .	667
4.1035 sai.eai.VMFVec3f Class Reference . . . . .	667
4.1035.1 Detailed Description . . . . .	667
4.1036 vrml.external.FreeWRLEAI.VMFVec3f Class Reference . . . . .	668
4.1036.1 Detailed Description . . . . .	668
4.1037 void3 Struct Reference . . . . .	668
4.1037.1 Detailed Description . . . . .	668
4.1038 VRMLLexer Struct Reference . . . . .	669
4.1038.1 Detailed Description . . . . .	669
4.1039 sai.eai.VRMLObject Class Reference . . . . .	669
4.1039.1 Detailed Description . . . . .	670
4.1040 vrml.external.FreeWRLEAI.VRMLObject Class Reference . . . . .	670
4.1040.1 Detailed Description . . . . .	671
4.1041 sai.eai.VRMLObjectObserver Interface Reference . . . . .	671
4.1041.1 Detailed Description . . . . .	671
4.1042 vrml.external.FreeWRLEAI.VRMLObjectObserver Interface Reference . . . . .	671
4.1042.1 Detailed Description . . . . .	671
4.1043 VRMLParser Struct Reference . . . . .	672
4.1043.1 Detailed Description . . . . .	672
4.1044 vrml.external.FreeWRLEAI.VSFBool Class Reference . . . . .	672
4.1044.1 Detailed Description . . . . .	672
4.1045 sai.eai.VSFBool Class Reference . . . . .	673

---

4.1045.1 Detailed Description . . . . .	673
4.1046 sai.eai.VSFColor Class Reference . . . . .	673
4.1046.1 Detailed Description . . . . .	674
4.1047 vrml.external.FreeWRLEAI.VSFColor Class Reference . . . . .	674
4.1047.1 Detailed Description . . . . .	674
4.1048 vrml.external.FreeWRLEAI.VSFFloat Class Reference . . . . .	674
4.1048.1 Detailed Description . . . . .	675
4.1049 sai.eai.VSFFloat Class Reference . . . . .	675
4.1049.1 Detailed Description . . . . .	675
4.1050 vrml.external.FreeWRLEAI.VSFImage Class Reference . . . . .	676
4.1050.1 Detailed Description . . . . .	676
4.1051 sai.eai.VSFImage Class Reference . . . . .	676
4.1051.1 Detailed Description . . . . .	677
4.1052 sai.eai.VSFInt32 Class Reference . . . . .	677
4.1052.1 Detailed Description . . . . .	677
4.1053 vrml.external.FreeWRLEAI.VSFInt32 Class Reference . . . . .	677
4.1053.1 Detailed Description . . . . .	678
4.1054 vrml.external.FreeWRLEAI.VSFRotation Class Reference . . . . .	678
4.1054.1 Detailed Description . . . . .	678
4.1055 sai.eai.VSFRotation Class Reference . . . . .	679
4.1055.1 Detailed Description . . . . .	679
4.1056 sai.eai.VSFString Class Reference . . . . .	679
4.1056.1 Detailed Description . . . . .	680
4.1057 vrml.external.FreeWRLEAI.VSFString Class Reference . . . . .	680
4.1057.1 Detailed Description . . . . .	680
4.1058 sai.eai.VSFTIME Class Reference . . . . .	680
4.1058.1 Detailed Description . . . . .	681
4.1059 vrml.external.FreeWRLEAI.VSFTIME Class Reference . . . . .	681
4.1059.1 Detailed Description . . . . .	681
4.1060 sai.eai.VSFVec2f Class Reference . . . . .	682
4.1060.1 Detailed Description . . . . .	682
4.1061 vrml.external.FreeWRLEAI.VSFVec2f Class Reference . . . . .	682
4.1061.1 Detailed Description . . . . .	683
4.1062 sai.eai.VSFVec3f Class Reference . . . . .	683
4.1062.1 Detailed Description . . . . .	683
4.1063 vrml.external.FreeWRLEAI.VSFVec3f Class Reference . . . . .	684
4.1063.1 Detailed Description . . . . .	684
4.1064 walk_cbdata Struct Reference . . . . .	684
4.1064.1 Detailed Description . . . . .	685
4.1065 WarfareFamilyPdu Struct Reference . . . . .	685
4.1065.1 Detailed Description . . . . .	685
4.1066 WEB3DNATIVE Struct Reference . . . . .	685

---

---

4.1066.1 Detailed Description . . . . .	685
4.1067 X3D_Anchor Struct Reference . . . . .	686
4.1067.1 Detailed Description . . . . .	686
4.1068 X3D_Appearance Struct Reference . . . . .	686
4.1068.1 Detailed Description . . . . .	687
4.1069 X3D_Arc2D Struct Reference . . . . .	687
4.1069.1 Detailed Description . . . . .	687
4.1070 X3D_ArcClose2D Struct Reference . . . . .	688
4.1070.1 Detailed Description . . . . .	688
4.1071 X3D_AudioClip Struct Reference . . . . .	688
4.1071.1 Detailed Description . . . . .	689
4.1072 X3D_BackdropBackground Struct Reference . . . . .	689
4.1072.1 Detailed Description . . . . .	690
4.1073 X3D_Background Struct Reference . . . . .	690
4.1073.1 Detailed Description . . . . .	691
4.1074 X3D_BallJoint Struct Reference . . . . .	691
4.1074.1 Detailed Description . . . . .	691
4.1075 X3D_Billboard Struct Reference . . . . .	692
4.1075.1 Detailed Description . . . . .	692
4.1076 X3D_BlendedVolumeStyle Struct Reference . . . . .	692
4.1076.1 Detailed Description . . . . .	693
4.1077 X3D_BooleanFilter Struct Reference . . . . .	693
4.1077.1 Detailed Description . . . . .	694
4.1078 X3D_BooleanSequencer Struct Reference . . . . .	694
4.1078.1 Detailed Description . . . . .	694
4.1079 X3D_BooleanToggle Struct Reference . . . . .	695
4.1079.1 Detailed Description . . . . .	695
4.1080 X3D_BooleanTrigger Struct Reference . . . . .	695
4.1080.1 Detailed Description . . . . .	696
4.1081 X3D_BoundaryEnhancementVolumeStyle Struct Reference . . . . .	696
4.1081.1 Detailed Description . . . . .	696
4.1082 X3D_BoundedPhysicsModel Struct Reference . . . . .	697
4.1082.1 Detailed Description . . . . .	697
4.1083 X3D_Box Struct Reference . . . . .	697
4.1083.1 Detailed Description . . . . .	698
4.1084 X3D_CADAssembly Struct Reference . . . . .	698
4.1084.1 Detailed Description . . . . .	698
4.1085 X3D_CADFace Struct Reference . . . . .	699
4.1085.1 Detailed Description . . . . .	699
4.1086 X3D_CADLayer Struct Reference . . . . .	699
4.1086.1 Detailed Description . . . . .	700
4.1087 X3D_CADPart Struct Reference . . . . .	700

---

4.1087.1 Detailed Description . . . . .	700
4.1088 X3D_CalibratedCameraSensor Struct Reference . . . . .	701
4.1088.1 Detailed Description . . . . .	701
4.1089 X3D_CartoonVolumeStyle Struct Reference . . . . .	701
4.1089.1 Detailed Description . . . . .	702
4.1090 X3D_Circle2D Struct Reference . . . . .	702
4.1090.1 Detailed Description . . . . .	702
4.1091 X3D_ClipPlane Struct Reference . . . . .	702
4.1091.1 Detailed Description . . . . .	703
4.1092 X3D_CollidableOffset Struct Reference . . . . .	703
4.1092.1 Detailed Description . . . . .	703
4.1093 X3D_CollidableShape Struct Reference . . . . .	704
4.1093.1 Detailed Description . . . . .	704
4.1094 X3D_Collision Struct Reference . . . . .	704
4.1094.1 Detailed Description . . . . .	705
4.1095 X3D_CollisionCollection Struct Reference . . . . .	705
4.1095.1 Detailed Description . . . . .	706
4.1096 X3D_CollisionSensor Struct Reference . . . . .	706
4.1096.1 Detailed Description . . . . .	706
4.1097 X3D_CollisionSpace Struct Reference . . . . .	707
4.1097.1 Detailed Description . . . . .	707
4.1098 X3D_Color Struct Reference . . . . .	707
4.1098.1 Detailed Description . . . . .	708
4.1099 X3D_ColorChaser Struct Reference . . . . .	708
4.1099.1 Detailed Description . . . . .	708
4.1100 X3D_ColorDamper Struct Reference . . . . .	709
4.1100.1 Detailed Description . . . . .	709
4.1101 X3D_ColorInterpolator Struct Reference . . . . .	710
4.1101.1 Detailed Description . . . . .	710
4.1102 X3D_ColorRGBA Struct Reference . . . . .	710
4.1102.1 Detailed Description . . . . .	711
4.1103 X3D_ComposedCubeMapTexture Struct Reference . . . . .	711
4.1103.1 Detailed Description . . . . .	711
4.1104 X3D_ComposedShader Struct Reference . . . . .	712
4.1104.1 Detailed Description . . . . .	712
4.1105 X3D_ComposedTexture3D Struct Reference . . . . .	712
4.1105.1 Detailed Description . . . . .	713
4.1106 X3D_ComposedVolumeStyle Struct Reference . . . . .	713
4.1106.1 Detailed Description . . . . .	713
4.1107 X3D_CompositeVolumeStyle Struct Reference . . . . .	714
4.1107.1 Detailed Description . . . . .	714
4.1108 X3D_Cone Struct Reference . . . . .	714

4.1108.1 Detailed Description . . . . .	715
4.1109 X3D_ConeEmitter Struct Reference . . . . .	715
4.1109.1 Detailed Description . . . . .	715
4.1110 X3D_Contact Struct Reference . . . . .	716
4.1110.1 Detailed Description . . . . .	716
4.1111 X3D_Contour2D Struct Reference . . . . .	717
4.1111.1 Detailed Description . . . . .	717
4.1112 X3D_ContourPolyline2D Struct Reference . . . . .	717
4.1112.1 Detailed Description . . . . .	718
4.1113 X3D_Coordinate Struct Reference . . . . .	718
4.1113.1 Detailed Description . . . . .	718
4.1114 X3D_CoordinateChaser Struct Reference . . . . .	718
4.1114.1 Detailed Description . . . . .	719
4.1115 X3D_CoordinateDamper Struct Reference . . . . .	719
4.1115.1 Detailed Description . . . . .	720
4.1116 X3D_CoordinateDouble Struct Reference . . . . .	720
4.1116.1 Detailed Description . . . . .	720
4.1117 X3D_CoordinateInterpolator Struct Reference . . . . .	721
4.1117.1 Detailed Description . . . . .	721
4.1118 X3D_CoordinateInterpolator2D Struct Reference . . . . .	721
4.1118.1 Detailed Description . . . . .	722
4.1119 X3D_Cylinder Struct Reference . . . . .	722
4.1119.1 Detailed Description . . . . .	722
4.1120 X3D_CylinderSensor Struct Reference . . . . .	723
4.1120.1 Detailed Description . . . . .	723
4.1121 X3D_DirectionalLight Struct Reference . . . . .	724
4.1121.1 Detailed Description . . . . .	724
4.1122 X3D_DISEntityManager Struct Reference . . . . .	724
4.1122.1 Detailed Description . . . . .	725
4.1123 X3D_DISEntityTypeMapping Struct Reference . . . . .	726
4.1123.1 Detailed Description . . . . .	726
4.1124 X3D_Disk2D Struct Reference . . . . .	726
4.1124.1 Detailed Description . . . . .	727
4.1125 X3D_DoubleAxisHingeJoint Struct Reference . . . . .	727
4.1125.1 Detailed Description . . . . .	728
4.1126 X3D_EaseInEaseOut Struct Reference . . . . .	728
4.1126.1 Detailed Description . . . . .	729
4.1127 X3D_EdgeEnhancementVolumeStyle Struct Reference . . . . .	729
4.1127.1 Detailed Description . . . . .	729
4.1128 X3D_Effect Struct Reference . . . . .	730
4.1128.1 Detailed Description . . . . .	730
4.1129 X3D_EffectPart Struct Reference . . . . .	730

4.1129.1 Detailed Description . . . . .	731
4.1130 X3D_ElevationGrid Struct Reference . . . . .	731
4.1130.1 Detailed Description . . . . .	732
4.1131 X3D_EspduTransform Struct Reference . . . . .	732
4.1131.1 Detailed Description . . . . .	734
4.1132 X3D_ExplosionEmitter Struct Reference . . . . .	735
4.1132.1 Detailed Description . . . . .	735
4.1133 X3D_Extrusion Struct Reference . . . . .	735
4.1133.1 Detailed Description . . . . .	736
4.1134 X3D_FillProperties Struct Reference . . . . .	736
4.1134.1 Detailed Description . . . . .	737
4.1135 X3D_FloatVertexAttribute Struct Reference . . . . .	737
4.1135.1 Detailed Description . . . . .	737
4.1136 X3D_Fog Struct Reference . . . . .	738
4.1136.1 Detailed Description . . . . .	738
4.1137 X3D_FogCoordinate Struct Reference . . . . .	738
4.1137.1 Detailed Description . . . . .	739
4.1138 X3D_FontStyle Struct Reference . . . . .	739
4.1138.1 Detailed Description . . . . .	739
4.1139 X3D_ForcePhysicsModel Struct Reference . . . . .	740
4.1139.1 Detailed Description . . . . .	740
4.1140 X3D_GeneratedCubeMapTexture Struct Reference . . . . .	740
4.1140.1 Detailed Description . . . . .	741
4.1141 X3D_GeoConvert Struct Reference . . . . .	741
4.1141.1 Detailed Description . . . . .	741
4.1142 X3D_GeoCoordinate Struct Reference . . . . .	742
4.1142.1 Detailed Description . . . . .	742
4.1143 X3D_GeoElevationGrid Struct Reference . . . . .	742
4.1143.1 Detailed Description . . . . .	743
4.1144 X3D_GeoLocation Struct Reference . . . . .	743
4.1144.1 Detailed Description . . . . .	744
4.1145 X3D_GeoLOD Struct Reference . . . . .	744
4.1145.1 Detailed Description . . . . .	745
4.1146 X3D_GeoMetadata Struct Reference . . . . .	745
4.1146.1 Detailed Description . . . . .	746
4.1147 X3D_GeoOrigin Struct Reference . . . . .	746
4.1147.1 Detailed Description . . . . .	746
4.1148 X3D_GeoPlanet Struct Reference . . . . .	747
4.1148.1 Detailed Description . . . . .	747
4.1149 X3D_GeoPositionInterpolator Struct Reference . . . . .	747
4.1149.1 Detailed Description . . . . .	748
4.1150 X3D_GeoProximitySensor Struct Reference . . . . .	748

4.1150.1 Detailed Description . . . . .	749
4.1151 X3D_GeoTouchSensor Struct Reference . . . . .	749
4.1151.1 Detailed Description . . . . .	750
4.1152 X3D_GeoTransform Struct Reference . . . . .	750
4.1152.1 Detailed Description . . . . .	751
4.1153 X3D_GeoViewpoint Struct Reference . . . . .	751
4.1153.1 Detailed Description . . . . .	752
4.1154 X3D_Group Struct Reference . . . . .	752
4.1154.1 Detailed Description . . . . .	752
4.1155 X3D_HAnimDisplacer Struct Reference . . . . .	753
4.1155.1 Detailed Description . . . . .	753
4.1156 X3D_HAnimHumanoid Struct Reference . . . . .	753
4.1156.1 Detailed Description . . . . .	754
4.1157 X3D_HAnimJoint Struct Reference . . . . .	754
4.1157.1 Detailed Description . . . . .	755
4.1158 X3D_HAnimSegment Struct Reference . . . . .	755
4.1158.1 Detailed Description . . . . .	756
4.1159 X3D_HAnimSite Struct Reference . . . . .	756
4.1159.1 Detailed Description . . . . .	757
4.1160 X3D_ImageBackdropBackground Struct Reference . . . . .	757
4.1160.1 Detailed Description . . . . .	757
4.1161 X3D_ImageCubeMapTexture Struct Reference . . . . .	758
4.1161.1 Detailed Description . . . . .	758
4.1162 X3D_ImageTexture Struct Reference . . . . .	758
4.1162.1 Detailed Description . . . . .	759
4.1163 X3D_ImageTexture3D Struct Reference . . . . .	759
4.1163.1 Detailed Description . . . . .	759
4.1164 X3D_IndexedFaceSet Struct Reference . . . . .	760
4.1164.1 Detailed Description . . . . .	760
4.1165 X3D_IndexedLineSet Struct Reference . . . . .	761
4.1165.1 Detailed Description . . . . .	761
4.1166 X3D_IndexedQuadSet Struct Reference . . . . .	762
4.1166.1 Detailed Description . . . . .	762
4.1167 X3D_IndexedTriangleFanSet Struct Reference . . . . .	762
4.1167.1 Detailed Description . . . . .	763
4.1168 X3D_IndexedTriangleSet Struct Reference . . . . .	763
4.1168.1 Detailed Description . . . . .	764
4.1169 X3D_IndexedTriangleStripSet Struct Reference . . . . .	764
4.1169.1 Detailed Description . . . . .	765
4.1170 X3D_Inline Struct Reference . . . . .	765
4.1170.1 Detailed Description . . . . .	766
4.1171 X3D_IntegerSequencer Struct Reference . . . . .	766

4.1171.1 Detailed Description . . . . .	766
4.1172 X3D_IntegerTrigger Struct Reference . . . . .	767
4.1172.1 Detailed Description . . . . .	767
4.1173 X3D_IsoSurfaceVolumeData Struct Reference . . . . .	767
4.1173.1 Detailed Description . . . . .	768
4.1174 X3D_KeySensor Struct Reference . . . . .	768
4.1174.1 Detailed Description . . . . .	768
4.1175 X3D_Layer Struct Reference . . . . .	769
4.1175.1 Detailed Description . . . . .	769
4.1176 X3D_LayerSet Struct Reference . . . . .	769
4.1176.1 Detailed Description . . . . .	770
4.1177 X3D_Layout Struct Reference . . . . .	770
4.1177.1 Detailed Description . . . . .	770
4.1178 X3D_LayoutGroup Struct Reference . . . . .	771
4.1178.1 Detailed Description . . . . .	771
4.1179 X3D_LayoutLayer Struct Reference . . . . .	771
4.1179.1 Detailed Description . . . . .	772
4.1180 X3D_LinePickSensor Struct Reference . . . . .	772
4.1180.1 Detailed Description . . . . .	773
4.1181 X3D_LineProperties Struct Reference . . . . .	773
4.1181.1 Detailed Description . . . . .	773
4.1182 X3D_LineSensor Struct Reference . . . . .	774
4.1182.1 Detailed Description . . . . .	774
4.1183 X3D_LineSet Struct Reference . . . . .	775
4.1183.1 Detailed Description . . . . .	775
4.1184 X3D_LoadSensor Struct Reference . . . . .	775
4.1184.1 Detailed Description . . . . .	776
4.1185 X3D_LocalFog Struct Reference . . . . .	776
4.1185.1 Detailed Description . . . . .	777
4.1186 X3D_LOD Struct Reference . . . . .	777
4.1186.1 Detailed Description . . . . .	777
4.1187 X3D_Material Struct Reference . . . . .	778
4.1187.1 Detailed Description . . . . .	778
4.1188 X3D_Matrix3VertexAttribute Struct Reference . . . . .	778
4.1188.1 Detailed Description . . . . .	779
4.1189 X3D_Matrix4VertexAttribute Struct Reference . . . . .	779
4.1189.1 Detailed Description . . . . .	779
4.1190 X3D_MetadataBoolean Struct Reference . . . . .	779
4.1190.1 Detailed Description . . . . .	780
4.1191 X3D_MetadataDouble Struct Reference . . . . .	780
4.1191.1 Detailed Description . . . . .	780
4.1192 X3D_MetadataFloat Struct Reference . . . . .	781



4.1192.1 Detailed Description . . . . .	781
4.1193 X3D_MetadataInteger Struct Reference . . . . .	781
4.1193.1 Detailed Description . . . . .	782
4.1194 X3D_MetadataMFBool Struct Reference . . . . .	782
4.1194.1 Detailed Description . . . . .	782
4.1195 X3D_MetadataMFColor Struct Reference . . . . .	783
4.1195.1 Detailed Description . . . . .	783
4.1196 X3D_MetadataMFColorRGBA Struct Reference . . . . .	783
4.1196.1 Detailed Description . . . . .	784
4.1197 X3D_MetadataMFDouble Struct Reference . . . . .	784
4.1197.1 Detailed Description . . . . .	784
4.1198 X3D_MetadataMFFloat Struct Reference . . . . .	785
4.1198.1 Detailed Description . . . . .	785
4.1199 X3D_MetadataMFInt32 Struct Reference . . . . .	785
4.1199.1 Detailed Description . . . . .	786
4.1200 X3D_MetadataMFMatrix3d Struct Reference . . . . .	786
4.1200.1 Detailed Description . . . . .	786
4.1201 X3D_MetadataMFMatrix3f Struct Reference . . . . .	787
4.1201.1 Detailed Description . . . . .	787
4.1202 X3D_MetadataMFMatrix4d Struct Reference . . . . .	787
4.1202.1 Detailed Description . . . . .	788
4.1203 X3D_MetadataMFMatrix4f Struct Reference . . . . .	788
4.1203.1 Detailed Description . . . . .	788
4.1204 X3D_MetadataMFNode Struct Reference . . . . .	789
4.1204.1 Detailed Description . . . . .	789
4.1205 X3D_MetadataMFRotation Struct Reference . . . . .	789
4.1205.1 Detailed Description . . . . .	790
4.1206 X3D_MetadataMFString Struct Reference . . . . .	790
4.1206.1 Detailed Description . . . . .	790
4.1207 X3D_MetadataMFTime Struct Reference . . . . .	791
4.1207.1 Detailed Description . . . . .	791
4.1208 X3D_MetadataMFVec2d Struct Reference . . . . .	791
4.1208.1 Detailed Description . . . . .	792
4.1209 X3D_MetadataMFVec2f Struct Reference . . . . .	792
4.1209.1 Detailed Description . . . . .	792
4.1210 X3D_MetadataMFVec3d Struct Reference . . . . .	793
4.1210.1 Detailed Description . . . . .	793
4.1211 X3D_MetadataMFVec3f Struct Reference . . . . .	793
4.1211.1 Detailed Description . . . . .	794
4.1212 X3D_MetadataMFVec4d Struct Reference . . . . .	794
4.1212.1 Detailed Description . . . . .	794
4.1213 X3D_MetadataMFVec4f Struct Reference . . . . .	795

4.1213.1 Detailed Description . . . . .	795
4.1214 X3D_MetadataSet Struct Reference . . . . .	795
4.1214.1 Detailed Description . . . . .	796
4.1215 X3D_MetadataSFBool Struct Reference . . . . .	796
4.1215.1 Detailed Description . . . . .	796
4.1216 X3D_MetadataSFColor Struct Reference . . . . .	797
4.1216.1 Detailed Description . . . . .	797
4.1217 X3D_MetadataSFColorRGBA Struct Reference . . . . .	797
4.1217.1 Detailed Description . . . . .	798
4.1218 X3D_MetadataSFDouble Struct Reference . . . . .	798
4.1218.1 Detailed Description . . . . .	798
4.1219 X3D_MetadataSFFloat Struct Reference . . . . .	799
4.1219.1 Detailed Description . . . . .	799
4.1220 X3D_MetadataSFImage Struct Reference . . . . .	799
4.1220.1 Detailed Description . . . . .	800
4.1221 X3D_MetadataSFInt32 Struct Reference . . . . .	800
4.1221.1 Detailed Description . . . . .	800
4.1222 X3D_MetadataSFMatrix3d Struct Reference . . . . .	801
4.1222.1 Detailed Description . . . . .	801
4.1223 X3D_MetadataSFMatrix3f Struct Reference . . . . .	801
4.1223.1 Detailed Description . . . . .	802
4.1224 X3D_MetadataSFMatrix4d Struct Reference . . . . .	802
4.1224.1 Detailed Description . . . . .	802
4.1225 X3D_MetadataSFMatrix4f Struct Reference . . . . .	803
4.1225.1 Detailed Description . . . . .	803
4.1226 X3D_MetadataSFNode Struct Reference . . . . .	803
4.1226.1 Detailed Description . . . . .	804
4.1227 X3D_MetadataSFRotation Struct Reference . . . . .	804
4.1227.1 Detailed Description . . . . .	804
4.1228 X3D_MetadataSFString Struct Reference . . . . .	805
4.1228.1 Detailed Description . . . . .	805
4.1229 X3D_MetadataSFTime Struct Reference . . . . .	805
4.1229.1 Detailed Description . . . . .	806
4.1230 X3D_MetadataSFVec2d Struct Reference . . . . .	806
4.1230.1 Detailed Description . . . . .	806
4.1231 X3D_MetadataSFVec2f Struct Reference . . . . .	807
4.1231.1 Detailed Description . . . . .	807
4.1232 X3D_MetadataSFVec3d Struct Reference . . . . .	807
4.1232.1 Detailed Description . . . . .	808
4.1233 X3D_MetadataSFVec3f Struct Reference . . . . .	808
4.1233.1 Detailed Description . . . . .	808
4.1234 X3D_MetadataSFVec4d Struct Reference . . . . .	809

---

4.1234.1 Detailed Description . . . . .	809
4.1235 X3D_MetadataSFVec4f Struct Reference . . . . .	809
4.1235.1 Detailed Description . . . . .	810
4.1236 X3D_MetadataString Struct Reference . . . . .	810
4.1236.1 Detailed Description . . . . .	810
4.1237 X3D_MotorJoint Struct Reference . . . . .	811
4.1237.1 Detailed Description . . . . .	812
4.1238 X3D_MovieTexture Struct Reference . . . . .	812
4.1238.1 Detailed Description . . . . .	813
4.1239 X3D_MultiTexture Struct Reference . . . . .	813
4.1239.1 Detailed Description . . . . .	813
4.1240 X3D_MultiTextureCoordinate Struct Reference . . . . .	814
4.1240.1 Detailed Description . . . . .	814
4.1241 X3D_MultiTextureTransform Struct Reference . . . . .	814
4.1241.1 Detailed Description . . . . .	815
4.1242 X3D_NavigationInfo Struct Reference . . . . .	815
4.1242.1 Detailed Description . . . . .	815
4.1243 X3D_Node Struct Reference . . . . .	816
4.1243.1 Detailed Description . . . . .	816
4.1244 X3D_Normal Struct Reference . . . . .	816
4.1244.1 Detailed Description . . . . .	817
4.1245 X3D_NormalInterpolator Struct Reference . . . . .	817
4.1245.1 Detailed Description . . . . .	817
4.1246 X3D_NurbsCurve Struct Reference . . . . .	818
4.1246.1 Detailed Description . . . . .	818
4.1247 X3D_NurbsCurve2D Struct Reference . . . . .	818
4.1247.1 Detailed Description . . . . .	819
4.1248 X3D_NurbsOrientationInterpolator Struct Reference . . . . .	819
4.1248.1 Detailed Description . . . . .	820
4.1249 X3D_NurbsPatchSurface Struct Reference . . . . .	820
4.1249.1 Detailed Description . . . . .	820
4.1250 X3D_NurbsPositionInterpolator Struct Reference . . . . .	821
4.1250.1 Detailed Description . . . . .	821
4.1251 X3D_NurbsSet Struct Reference . . . . .	821
4.1251.1 Detailed Description . . . . .	822
4.1252 X3D_NurbsSurfaceInterpolator Struct Reference . . . . .	822
4.1252.1 Detailed Description . . . . .	823
4.1253 X3D_NurbsSweptSurface Struct Reference . . . . .	823
4.1253.1 Detailed Description . . . . .	823
4.1254 X3D_NurbsSwungSurface Struct Reference . . . . .	824
4.1254.1 Detailed Description . . . . .	824
4.1255 X3D_NurbsTextureCoordinate Struct Reference . . . . .	824

---

---

4.1255.1 Detailed Description . . . . .	825
4.1256 X3D_NurbsTrimmedSurface Struct Reference . . . . .	825
4.1256.1 Detailed Description . . . . .	826
4.1257 X3D_OpacityMapVolumeStyle Struct Reference . . . . .	826
4.1257.1 Detailed Description . . . . .	826
4.1258 X3D_OrientationChaser Struct Reference . . . . .	827
4.1258.1 Detailed Description . . . . .	827
4.1259 X3D_OrientationDamper Struct Reference . . . . .	828
4.1259.1 Detailed Description . . . . .	828
4.1260 X3D_OrientationInterpolator Struct Reference . . . . .	829
4.1260.1 Detailed Description . . . . .	829
4.1261 X3D_OrthoViewpoint Struct Reference . . . . .	829
4.1261.1 Detailed Description . . . . .	830
4.1262 X3D_OSC_Sensor Struct Reference . . . . .	830
4.1262.1 Detailed Description . . . . .	831
4.1263 X3D_PackagedShader Struct Reference . . . . .	831
4.1263.1 Detailed Description . . . . .	832
4.1264 X3D_ParticleSystem Struct Reference . . . . .	832
4.1264.1 Detailed Description . . . . .	833
4.1265 X3D_PickableGroup Struct Reference . . . . .	833
4.1265.1 Detailed Description . . . . .	833
4.1266 X3D_PixelTexture Struct Reference . . . . .	834
4.1266.1 Detailed Description . . . . .	834
4.1267 X3D_PixelTexture3D Struct Reference . . . . .	834
4.1267.1 Detailed Description . . . . .	835
4.1268 X3D_PlaneSensor Struct Reference . . . . .	835
4.1268.1 Detailed Description . . . . .	836
4.1269 X3D_PointEmitter Struct Reference . . . . .	836
4.1269.1 Detailed Description . . . . .	836
4.1270 X3D_PointLight Struct Reference . . . . .	837
4.1270.1 Detailed Description . . . . .	837
4.1271 X3D_PointPickSensor Struct Reference . . . . .	837
4.1271.1 Detailed Description . . . . .	838
4.1272 X3D_PointSensor Struct Reference . . . . .	838
4.1272.1 Detailed Description . . . . .	839
4.1273 X3D_PointSet Struct Reference . . . . .	839
4.1273.1 Detailed Description . . . . .	840
4.1274 X3D_Polyline2D Struct Reference . . . . .	840
4.1274.1 Detailed Description . . . . .	840
4.1275 X3D_PolylineEmitter Struct Reference . . . . .	840
4.1275.1 Detailed Description . . . . .	841
4.1276 X3D_Polypoint2D Struct Reference . . . . .	841

---

---

4.1276.1 Detailed Description . . . . .	842
4.1277 X3D_PolyRep Struct Reference . . . . .	842
4.1277.1 Detailed Description . . . . .	842
4.1278 X3D_PositionChaser Struct Reference . . . . .	843
4.1278.1 Detailed Description . . . . .	843
4.1279 X3D_PositionChaser2D Struct Reference . . . . .	844
4.1279.1 Detailed Description . . . . .	844
4.1280 X3D_PositionDamper Struct Reference . . . . .	845
4.1280.1 Detailed Description . . . . .	845
4.1281 X3D_PositionDamper2D Struct Reference . . . . .	846
4.1281.1 Detailed Description . . . . .	846
4.1282 X3D_PositionInterpolator Struct Reference . . . . .	847
4.1282.1 Detailed Description . . . . .	847
4.1283 X3D_PositionInterpolator2D Struct Reference . . . . .	847
4.1283.1 Detailed Description . . . . .	848
4.1284 X3D_PrimitivePickSensor Struct Reference . . . . .	848
4.1284.1 Detailed Description . . . . .	848
4.1285 X3D_ProgramShader Struct Reference . . . . .	849
4.1285.1 Detailed Description . . . . .	849
4.1286 X3D_ProjectionVolumeStyle Struct Reference . . . . .	849
4.1286.1 Detailed Description . . . . .	850
4.1287 X3D_Proto Struct Reference . . . . .	850
4.1287.1 Detailed Description . . . . .	851
4.1288 X3D_ProximitySensor Struct Reference . . . . .	851
4.1288.1 Detailed Description . . . . .	852
4.1289 X3D_QuadSet Struct Reference . . . . .	852
4.1289.1 Detailed Description . . . . .	852
4.1290 X3D_ReceiverPdu Struct Reference . . . . .	853
4.1290.1 Detailed Description . . . . .	854
4.1291 X3D_Rectangle2D Struct Reference . . . . .	854
4.1291.1 Detailed Description . . . . .	854
4.1292 X3D_RigidBody Struct Reference . . . . .	855
4.1292.1 Detailed Description . . . . .	856
4.1293 X3D_RigidBodyCollection Struct Reference . . . . .	856
4.1293.1 Detailed Description . . . . .	856
4.1294 X3D_ScalarChaser Struct Reference . . . . .	857
4.1294.1 Detailed Description . . . . .	857
4.1295 X3D_ScalarDamper Struct Reference . . . . .	858
4.1295.1 Detailed Description . . . . .	858
4.1296 X3D_ScalarInterpolator Struct Reference . . . . .	859
4.1296.1 Detailed Description . . . . .	859
4.1297 X3D_ScreenFontStyle Struct Reference . . . . .	859

---

4.1297.1 Detailed Description . . . . .	860
4.1298 X3D_ScreenGroup Struct Reference . . . . .	860
4.1298.1 Detailed Description . . . . .	860
4.1299 X3D_Script Struct Reference . . . . .	861
4.1299.1 Detailed Description . . . . .	861
4.1300 X3D_SegmentedVolumeData Struct Reference . . . . .	861
4.1300.1 Detailed Description . . . . .	862
4.1301 X3D_ShadedVolumeStyle Struct Reference . . . . .	862
4.1301.1 Detailed Description . . . . .	862
4.1302 X3D_ShaderPart Struct Reference . . . . .	863
4.1302.1 Detailed Description . . . . .	863
4.1303 X3D_ShaderProgram Struct Reference . . . . .	863
4.1303.1 Detailed Description . . . . .	864
4.1304 X3D_Shape Struct Reference . . . . .	864
4.1304.1 Detailed Description . . . . .	864
4.1305 X3D_SignalPdu Struct Reference . . . . .	865
4.1305.1 Detailed Description . . . . .	866
4.1306 X3D_SilhouetteEnhancementVolumeStyle Struct Reference . . . . .	866
4.1306.1 Detailed Description . . . . .	866
4.1307 X3D_SingleAxisHingeJoint Struct Reference . . . . .	867
4.1307.1 Detailed Description . . . . .	867
4.1308 X3D_SliderJoint Struct Reference . . . . .	868
4.1308.1 Detailed Description . . . . .	868
4.1309 X3D_Sound Struct Reference . . . . .	869
4.1309.1 Detailed Description . . . . .	869
4.1310 X3D_Sphere Struct Reference . . . . .	869
4.1310.1 Detailed Description . . . . .	870
4.1311 X3D_SphereSensor Struct Reference . . . . .	870
4.1311.1 Detailed Description . . . . .	871
4.1312 X3D_SplinePositionInterpolator Struct Reference . . . . .	871
4.1312.1 Detailed Description . . . . .	871
4.1313 X3D_SplinePositionInterpolator2D Struct Reference . . . . .	872
4.1313.1 Detailed Description . . . . .	872
4.1314 X3D_SplineScalarInterpolator Struct Reference . . . . .	872
4.1314.1 Detailed Description . . . . .	873
4.1315 X3D_SpotLight Struct Reference . . . . .	873
4.1315.1 Detailed Description . . . . .	874
4.1316 X3D_SquadOrientationInterpolator Struct Reference . . . . .	874
4.1316.1 Detailed Description . . . . .	874
4.1317 X3D_StaticGroup Struct Reference . . . . .	875
4.1317.1 Detailed Description . . . . .	875
4.1318 X3D_StringSensor Struct Reference . . . . .	875

---

4.1318.1 Detailed Description . . . . .	876
4.1319 X3D_SurfaceEmitter Struct Reference . . . . .	876
4.1319.1 Detailed Description . . . . .	877
4.1320 X3D_Switch Struct Reference . . . . .	877
4.1320.1 Detailed Description . . . . .	877
4.1321 X3D_Teapot Struct Reference . . . . .	878
4.1321.1 Detailed Description . . . . .	878
4.1322 X3D_TexCoordChaser2D Struct Reference . . . . .	878
4.1322.1 Detailed Description . . . . .	879
4.1323 X3D_TexCoordDamper2D Struct Reference . . . . .	879
4.1323.1 Detailed Description . . . . .	880
4.1324 X3D_Text Struct Reference . . . . .	880
4.1324.1 Detailed Description . . . . .	880
4.1325 X3D_TextureBackground Struct Reference . . . . .	881
4.1325.1 Detailed Description . . . . .	881
4.1326 X3D_TextureCoordinate Struct Reference . . . . .	882
4.1326.1 Detailed Description . . . . .	882
4.1327 X3D_TextureCoordinate3D Struct Reference . . . . .	882
4.1327.1 Detailed Description . . . . .	883
4.1328 X3D_TextureCoordinate4D Struct Reference . . . . .	883
4.1328.1 Detailed Description . . . . .	883
4.1329 X3D_TextureCoordinateGenerator Struct Reference . . . . .	883
4.1329.1 Detailed Description . . . . .	884
4.1330 X3D_TextureProperties Struct Reference . . . . .	884
4.1330.1 Detailed Description . . . . .	884
4.1331 X3D_TextureTransform Struct Reference . . . . .	885
4.1331.1 Detailed Description . . . . .	885
4.1332 X3D_TextureTransform3D Struct Reference . . . . .	885
4.1332.1 Detailed Description . . . . .	886
4.1333 X3D_TextureTransformMatrix3D Struct Reference . . . . .	886
4.1333.1 Detailed Description . . . . .	886
4.1334 X3D_TimeSensor Struct Reference . . . . .	886
4.1334.1 Detailed Description . . . . .	887
4.1335 X3D_TimeTrigger Struct Reference . . . . .	887
4.1335.1 Detailed Description . . . . .	888
4.1336 X3D_ToneMappedVolumeStyle Struct Reference . . . . .	888
4.1336.1 Detailed Description . . . . .	888
4.1337 X3D_TouchSensor Struct Reference . . . . .	889
4.1337.1 Detailed Description . . . . .	889
4.1338 X3D_TrackingSensor Struct Reference . . . . .	889
4.1338.1 Detailed Description . . . . .	890
4.1339 X3D_Transform Struct Reference . . . . .	890

---

---

4.1339.1 Detailed Description . . . . .	891
4.1340 X3D_TransformSensor Struct Reference . . . . .	891
4.1340.1 Detailed Description . . . . .	892
4.1341 X3D_TransmitterPdu Struct Reference . . . . .	892
4.1341.1 Detailed Description . . . . .	893
4.1342 X3D_TriangleFanSet Struct Reference . . . . .	893
4.1342.1 Detailed Description . . . . .	894
4.1343 X3D_TriangleSet Struct Reference . . . . .	894
4.1343.1 Detailed Description . . . . .	895
4.1344 X3D_TriangleSet2D Struct Reference . . . . .	895
4.1344.1 Detailed Description . . . . .	895
4.1345 X3D_TriangleStripSet Struct Reference . . . . .	896
4.1345.1 Detailed Description . . . . .	896
4.1346 X3D_TwoSidedMaterial Struct Reference . . . . .	896
4.1346.1 Detailed Description . . . . .	897
4.1347 X3D_UniversalJoint Struct Reference . . . . .	897
4.1347.1 Detailed Description . . . . .	898
4.1348 X3D_Viewpoint Struct Reference . . . . .	898
4.1348.1 Detailed Description . . . . .	899
4.1349 X3D_ViewpointGroup Struct Reference . . . . .	899
4.1349.1 Detailed Description . . . . .	900
4.1350 X3D_Viewport Struct Reference . . . . .	900
4.1350.1 Detailed Description . . . . .	900
4.1351 X3D_Virt Struct Reference . . . . .	901
4.1351.1 Detailed Description . . . . .	901
4.1352 X3D_VisibilitySensor Struct Reference . . . . .	901
4.1352.1 Detailed Description . . . . .	902
4.1353 X3D_VolumeData Struct Reference . . . . .	902
4.1353.1 Detailed Description . . . . .	902
4.1354 X3D_VolumeEmitter Struct Reference . . . . .	903
4.1354.1 Detailed Description . . . . .	903
4.1355 X3D_VolumePickSensor Struct Reference . . . . .	903
4.1355.1 Detailed Description . . . . .	904
4.1356 X3D_WindPhysicsModel Struct Reference . . . . .	904
4.1356.1 Detailed Description . . . . .	905
4.1357 X3D_WorldInfo Struct Reference . . . . .	905
4.1357.1 Detailed Description . . . . .	905
4.1358 org.web3d.x3d.sai.X3DAppearanceChildNode Interface Reference . . . . .	905
4.1358.1 Detailed Description . . . . .	906
4.1359 org.web3d.x3d.sai.X3DAppearanceNode Interface Reference . . . . .	906
4.1359.1 Detailed Description . . . . .	906
4.1360 org.web3d.x3d.sai.X3DAudioClipNode Interface Reference . . . . .	906

---



4.1360.1 Detailed Description . . . . .	907
4.1361 org.web3d.x3d.sai.X3DBackgroundNode Interface Reference . . . . .	907
4.1361.1 Detailed Description . . . . .	908
4.1362 org.web3d.x3d.sai.X3DBindableNode Interface Reference . . . . .	908
4.1362.1 Detailed Description . . . . .	908
4.1363 org.web3d.x3d.sai.X3DBoundedObject Interface Reference . . . . .	908
4.1363.1 Detailed Description . . . . .	909
4.1364 org.web3d.x3d.sai.X3DChildNode Interface Reference . . . . .	909
4.1364.1 Detailed Description . . . . .	909
4.1365 org.web3d.x3d.sai.X3DColorNode Interface Reference . . . . .	910
4.1365.1 Detailed Description . . . . .	910
4.1366 org.web3d.x3d.sai.X3DComponent Interface Reference . . . . .	910
4.1366.1 Detailed Description . . . . .	911
4.1367 org.web3d.x3d.sai.X3DComposedGeometryNode Interface Reference . . . . .	911
4.1367.1 Detailed Description . . . . .	911
4.1368 org.web3d.x3d.sai.X3DCoordinateNode Interface Reference . . . . .	912
4.1368.1 Detailed Description . . . . .	912
4.1369 org.web3d.x3d.sai.X3DDragSensorNode Interface Reference . . . . .	912
4.1369.1 Detailed Description . . . . .	913
4.1370 org.web3d.x3d.sai.X3DEnvironmentalSensorNode Interface Reference . . . . .	913
4.1370.1 Detailed Description . . . . .	913
4.1371 org.web3d.x3d.sai.X3DException Class Reference . . . . .	914
4.1371.1 Detailed Description . . . . .	914
4.1372 org.web3d.x3d.sai.X3DExecutionContext Interface Reference . . . . .	915
4.1372.1 Detailed Description . . . . .	916
4.1373 org.web3d.x3d.sai.X3DExternProtoDeclaration Interface Reference . . . . .	916
4.1373.1 Detailed Description . . . . .	916
4.1374 org.web3d.x3d.sai.X3DField Interface Reference . . . . .	916
4.1374.1 Detailed Description . . . . .	917
4.1375 org.web3d.x3d.sai.X3DFieldDefinition Interface Reference . . . . .	918
4.1375.1 Detailed Description . . . . .	918
4.1376 org.web3d.x3d.sai.X3DFieldEvent Class Reference . . . . .	918
4.1376.1 Detailed Description . . . . .	918
4.1377 org.web3d.x3d.sai.X3DFieldEventListener Interface Reference . . . . .	919
4.1377.1 Detailed Description . . . . .	919
4.1378 org.web3d.x3d.sai.X3DFieldTypes Interface Reference . . . . .	919
4.1378.1 Detailed Description . . . . .	920
4.1379 org.web3d.x3d.sai.X3DFontStyleNode Interface Reference . . . . .	920
4.1379.1 Detailed Description . . . . .	921
4.1380 org.web3d.x3d.sai.X3DGeometricPropertyNode Interface Reference . . . . .	921
4.1380.1 Detailed Description . . . . .	921
4.1381 org.web3d.x3d.sai.X3DGeometryNode Interface Reference . . . . .	921

4.1381.1 Detailed Description . . . . .	922
4.1382 org.web3d.x3d.sai.X3DGroupingNode Interface Reference . . . . .	922
4.1382.1 Detailed Description . . . . .	922
4.1383 org.web3d.x3d.sai.X3DInfoNode Interface Reference . . . . .	922
4.1383.1 Detailed Description . . . . .	923
4.1384 org.web3d.x3d.sai.X3DInterpolatorNode Interface Reference . . . . .	923
4.1384.1 Detailed Description . . . . .	923
4.1385 org.web3d.x3d.sai.X3DKeyDeviceSensorNode Interface Reference . . . . .	923
4.1385.1 Detailed Description . . . . .	924
4.1386 org.web3d.x3d.sai.X3DLightNode Interface Reference . . . . .	924
4.1386.1 Detailed Description . . . . .	924
4.1387 org.web3d.x3d.sai.X3DMaterialNode Interface Reference . . . . .	925
4.1387.1 Detailed Description . . . . .	925
4.1388 org.web3d.x3d.sai.X3DMetadataObject Interface Reference . . . . .	925
4.1388.1 Detailed Description . . . . .	925
4.1389 org.web3d.x3d.sai.X3DNetworkSensorNode Interface Reference . . . . .	926
4.1389.1 Detailed Description . . . . .	926
4.1390 org.web3d.x3d.sai.X3DNode Interface Reference . . . . .	926
4.1390.1 Detailed Description . . . . .	927
4.1391 org.web3d.x3d.sai.X3DNodeType Interface Reference . . . . .	927
4.1391.1 Detailed Description . . . . .	928
4.1392 org.web3d.x3d.sai.X3DNormalNode Interface Reference . . . . .	928
4.1392.1 Detailed Description . . . . .	929
4.1393 org.web3d.x3d.sai.X3DParametricGeometryNode Interface Reference . . . . .	929
4.1393.1 Detailed Description . . . . .	929
4.1394 org.web3d.x3d.sai.X3DPerFrameObserverScript Interface Reference . . . . .	929
4.1394.1 Detailed Description . . . . .	930
4.1395 org.web3d.x3d.sai.X3DPointingDeviceSensorNode Interface Reference . . . . .	930
4.1395.1 Detailed Description . . . . .	930
4.1396 org.web3d.x3d.sai.X3DProtoDeclaration Interface Reference . . . . .	930
4.1396.1 Detailed Description . . . . .	931
4.1397 org.web3d.x3d.sai.X3DProtoInstance Interface Reference . . . . .	931
4.1397.1 Detailed Description . . . . .	931
4.1398 org.web3d.x3d.sai.X3DRoute Interface Reference . . . . .	931
4.1398.1 Detailed Description . . . . .	932
4.1399 org.web3d.x3d.sai.X3DScene Interface Reference . . . . .	932
4.1399.1 Detailed Description . . . . .	932
4.1400 org.web3d.x3d.sai.X3DScriptImplementation Interface Reference . . . . .	933
4.1400.1 Detailed Description . . . . .	933
4.1401 org.web3d.x3d.sai.X3DScriptNode Interface Reference . . . . .	933
4.1401.1 Detailed Description . . . . .	933
4.1402 org.web3d.x3d.sai.X3DSensorNode Interface Reference . . . . .	934

4.1402.1 Detailed Description . . . . .	934
4.1403 org.web3d.x3d.sai.X3DSequencerNode Interface Reference . . . . .	934
4.1403.1 Detailed Description . . . . .	935
4.1404 org.web3d.x3d.sai.X3DShapeNode Interface Reference . . . . .	935
4.1404.1 Detailed Description . . . . .	935
4.1405 org.web3d.x3d.sai.X3DSoundNode Interface Reference . . . . .	935
4.1405.1 Detailed Description . . . . .	936
4.1406 org.web3d.x3d.sai.X3DSoundSourceNode Interface Reference . . . . .	936
4.1406.1 Detailed Description . . . . .	936
4.1407 org.web3d.x3d.sai.X3DTextNode Interface Reference . . . . .	936
4.1407.1 Detailed Description . . . . .	937
4.1408 org.web3d.x3d.sai.X3DTexture2DNode Interface Reference . . . . .	937
4.1408.1 Detailed Description . . . . .	937
4.1409 org.web3d.x3d.sai.X3DTextureCoordinateNode Interface Reference . . . . .	937
4.1409.1 Detailed Description . . . . .	938
4.1410 org.web3d.x3d.sai.X3DTextureNode Interface Reference . . . . .	938
4.1410.1 Detailed Description . . . . .	938
4.1411 org.web3d.x3d.sai.X3DTextureTransform2DNode Interface Reference . . . . .	939
4.1411.1 Detailed Description . . . . .	939
4.1412 org.web3d.x3d.sai.X3DTextureTransformNode Interface Reference . . . . .	939
4.1412.1 Detailed Description . . . . .	940
4.1413 org.web3d.x3d.sai.X3DTimeDependentNode Interface Reference . . . . .	940
4.1413.1 Detailed Description . . . . .	940
4.1414 org.web3d.x3d.sai.X3DTouchSensorNode Interface Reference . . . . .	941
4.1414.1 Detailed Description . . . . .	941
4.1415 org.web3d.x3d.sai.X3DTriggerNode Interface Reference . . . . .	941
4.1415.1 Detailed Description . . . . .	942
4.1416 org.web3d.x3d.sai.X3DUrlObject Interface Reference . . . . .	942
4.1416.1 Detailed Description . . . . .	942
4.1417 xml_user_data Struct Reference . . . . .	942
4.1417.1 Detailed Description . . . . .	943
4.1418 XY Struct Reference . . . . .	943
4.1418.1 Detailed Description . . . . .	943
4.1419 zip64_internal Struct Reference . . . . .	943
4.1419.1 Detailed Description . . . . .	943
4.1420 zip_fileinfo Struct Reference . . . . .	944
4.1420.1 Detailed Description . . . . .	944
4.1421 zlib_filefunc64_32_def_s Struct Reference . . . . .	944
4.1421.1 Detailed Description . . . . .	944
4.1422 zlib_filefunc64_def_s Struct Reference . . . . .	944
4.1422.1 Detailed Description . . . . .	945
4.1423 zlib_filefunc_def_s Struct Reference . . . . .	945

4.1423.1 Detailed Description . . . . .	945
4.1424 zone Struct Reference . . . . .	945
4.1424.1 Detailed Description . . . . .	945
<b>Index</b>	<b>947</b>

# Chapter 1

## cson JSON API

cson (pronounced "season") is an object-oriented C API for generating and consuming JSON ( <http://www.json.org>) data.

Its main claim to fame is that it can parse JSON from, and output it to, damned near anywhere. The i/o routines use a callback function to fetch/emit JSON data, allowing clients to easily plug in their own implementations. Implementations are provided for string- and FILE-based i/o.

Project home page: <http://fossil.wanderinghorse.net/repos/cson>

Author: Stephan Beal ( <http://www.wanderinghorse.net/home/stephan/>)

License: Dual Public Domain/MIT

The full license text is at the bottom of the main header file (cson.h).

Examples of how to use the library are scattered throughout the API documentation, in the test.c file in the source repo, and in the wiki on the project's home page.



## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

_AnyNative . . . . .	57
_Atlas . . . . .	57
_AtlasEntry . . . . .	58
_AtlasFont . . . . .	58
_BrowserNative . . . . .	59
_BUTitem . . . . .	59
_cd_list_t . . . . .	59
_contenttype . . . . .	60
_CRnodeStruct . . . . .	60
_FW_PluginInstance . . . . .	60
_geosys . . . . .	61
_GLwDrawingAreaClassPart . . . . .	61
_GLwDrawingAreaClassRec . . . . .	62
_GLwDrawingAreaRec . . . . .	62
_GUIElement . . . . .	62
_intX3D_MFBool . . . . .	63
_intX3D_MFColor . . . . .	63
_intX3D_MFColorRGBA . . . . .	63
_intX3D_MFFloat . . . . .	64
_intX3D_MFImage . . . . .	64
_intX3D_MFInt32 . . . . .	64
_intX3D_MFNode . . . . .	65
_intX3D_MFRotation . . . . .	65
_intX3D_MFString . . . . .	65
_intX3D_MFTime . . . . .	66
_intX3D_MFVec2d . . . . .	66
_intX3D_MFVec2f . . . . .	66
_intX3D_MFVec3d . . . . .	67
_intX3D_MFVec3f . . . . .	67
_intX3D_SFBool . . . . .	67
_intX3D_SFColor . . . . .	68
_intX3D_SFColorRGBA . . . . .	68
_intX3D_SFFloat . . . . .	68
_intX3D_SFImage . . . . .	69
_intX3D_SFInt32 . . . . .	69

_intX3D_SFNode . . . . .	69
_intX3D_SFRotation . . . . .	70
_intX3D_SFString . . . . .	70
_intX3D_SFTime . . . . .	70
_intX3D_SFVec2d . . . . .	71
_intX3D_SFVec2f . . . . .	71
_intX3D_SFVec3d . . . . .	71
_intX3D_SFVec3f . . . . .	72
_intX3DEventIn . . . . .	72
_NPByteRange . . . . .	72
_NPEmbedPrint . . . . .	73
_NPFullPrint . . . . .	73
_NPImageExpose . . . . .	74
_NPNetscapeFuncs . . . . .	74
_NPP . . . . .	75
_NPPluginFuncs . . . . .	76
_NPPrint . . . . .	76
_NPRect . . . . .	77
_NPSavedData . . . . .	77
_NPSize . . . . .	77
_NPStream . . . . .	78
_NPString . . . . .	78
_NPVariant . . . . .	78
_NPWindow . . . . .	79
_s_list_t . . . . .	79
freeWRLSAI_cpp::_SAIParameter . . . . .	80
_SFColorNative . . . . .	80
_SFColorRGBANative . . . . .	80
_SFImageNative . . . . .	81
_SFNodeNative . . . . .	81
_SFRotationNative . . . . .	81
_SFVec2fNative . . . . .	82
_SFVec3dNative . . . . .	82
_SFVec3fNative . . . . .	82
_SFVec4dNative . . . . .	83
_SFVec4fNative . . . . .	83
_urlRequest . . . . .	83
_X3DNode . . . . .	84
AcknowledgePdu . . . . .	84
AcknowledgeReliablePdu . . . . .	85
AcousticBeamData . . . . .	85
AcousticBeamFundamentalParameter . . . . .	86
AcousticEmitter . . . . .	86
AcousticEmitterSystem . . . . .	87
AcousticEmitterSystemData . . . . .	88
ActionRequestPdu . . . . .	89
ActionRequestReliablePdu . . . . .	90
ActionResponsePdu . . . . .	90
ActionResponseReliablePdu . . . . .	91
ActiveRegion . . . . .	91
AggregateID . . . . .	92
AggregateMarking . . . . .	92
AggregateStatePdu . . . . .	93
AggregateType . . . . .	94
AngularVelocityVector . . . . .	95
AntennaLocation . . . . .	95
anyVrml . . . . .	95
ApaData . . . . .	96



ArcTessellator	100
ArealObjectStatePdu	100
ArgListType	101
ArticulationParameter	101
AtlasEntrySet	102
Backend	102
vrml.BaseNode	103
vrml.node.Node	416
vrml.node.Script	565
BeamAntennaPattern	107
BeamData	108
bezierPatch	109
bezierPatchMesh	110
Bin	110
bindablestack	111
block	111
Breakpt	112
brotoDefpair	112
brotoIS	113
brotoRoute	113
brouteEnd	114
org.web3d.x3d.sai.Browser	114
org.web3d.x3d.sai.ExternalBrowser	261
sai.FreeWRLBrowser	272
vrml.Browser	115
sai.BrowserFactory	118
org.web3d.x3d.sai.BrowserFactoryImpl	118
vrml.external.BrowserGlobals	119
sai.BrowserGlobals	119
org.web3d.x3d.sai.BrowserInterface	120
sai.FreeWRLBrowser	272
vrml.external.BrowserInterface	120
vrml.external.Browser	116
Buffer	122
BurstDescriptor	123
CachedVertex	123
CachingEvaluator	123
BasicCurveEvaluator	105
OpenGLCurveEvaluator	499
BasicSurfaceEvaluator	105
OpenGLSurfaceEvaluator	501
cbDataExactName	124
cbDataRootNameAndRouteDir	125
CdIIFreeWRL	125
chardata	126
chaser_ptrs	127
cline	127
ClockTime	127
Cloneable	
vrml.Event	235
vrml.Field	264
vrml.ConstField	134
vrml.ConstMField	136
vrml.field.ConstMFColor	135
vrml.field.ConstMFFloat	136
vrml.field.ConstMFInt32	138

vrml.field.ConstMFNode . . . . .	138
vrml.field.ConstMFRotation . . . . .	139
vrml.field.ConstMFString . . . . .	140
vrml.field.ConstMFTime . . . . .	141
vrml.field.ConstMFVec2f . . . . .	141
vrml.field.ConstMFVec3f . . . . .	142
vrml.field.ConstSFBool . . . . .	143
vrml.field.ConstSFColor . . . . .	144
vrml.field.ConstSFFloat . . . . .	144
vrml.field.ConstSFImage . . . . .	145
vrml.field.ConstSFInt32 . . . . .	146
vrml.field.ConstSFNode . . . . .	147
vrml.field.ConstSFRotation . . . . .	147
vrml.field.ConstSFString . . . . .	148
vrml.field.ConstSFTime . . . . .	149
vrml.field.ConstSFVec2f . . . . .	149
vrml.field.ConstSFVec3f . . . . .	150
vrml.field.SFBool . . . . .	573
vrml.field.SFColor . . . . .	574
vrml.field.SFFloat . . . . .	577
vrml.field.SFImage . . . . .	578
vrml.field.SFInt32 . . . . .	580
vrml.field.SFNode . . . . .	583
vrml.field.SFRotation . . . . .	584
vrml.field.SFString . . . . .	585
vrml.field.SFTime . . . . .	586
vrml.field.SFVec2f . . . . .	588
vrml.field.SFVec3f . . . . .	591
vrml.MField . . . . .	385
vrml.field.MFColor . . . . .	379
vrml.field.MFFloat . . . . .	383
vrml.field.MFInt32 . . . . .	387
vrml.field.MFNode . . . . .	389
vrml.field.MFRotation . . . . .	391
vrml.field.MFString . . . . .	392
vrml.field.MFTime . . . . .	394
vrml.field.MFVec2f . . . . .	396
vrml.field.MFVec3f . . . . .	398
coded_block_pattern_entry . . . . .	128
CollisionElasticPdu . . . . .	128
CollisionPdu . . . . .	129
colorScheme . . . . .	130
command . . . . .	130
CommentPdu . . . . .	131
CommentReliablePdu . . . . .	131
org.web3d.x3d.sai.ComponentInfo . . . . .	132
sai.FWComponentInfo . . . . .	286
connection_info_struct . . . . .	132
consoleLine . . . . .	134
contenttype_captiontext . . . . .	151
contenttype_e3dmouse . . . . .	151
contenttype_layer . . . . .	152
contenttype_multitouch . . . . .	152
contenttype_orientation . . . . .	153
contenttype_quadrant . . . . .	153
contenttype_scene . . . . .	153
contenttype_splitter . . . . .	154
contenttype_statusbar . . . . .	154

contenttype_stereo_anaglyph . . . . .	154
contenttype_stereo_shutter . . . . .	155
contenttype_stereo_sidebyside . . . . .	155
contenttype_stereo_updown . . . . .	155
contenttype_switch . . . . .	156
contenttype_textpanel . . . . .	156
contenttype_texturegrid . . . . .	157
CPlugin . . . . .	158
CR_RegStruct . . . . .	159
CreateEntityPdu . . . . .	159
CreateEntityReliablePdu . . . . .	160
CRjsnameStruct . . . . .	160
CRscriptStruct . . . . .	161
CRStruct . . . . .	161
cson_array . . . . .	162
cson_buffer . . . . .	162
cson_data_source_StringSource_ . . . . .	164
cson_kvp . . . . .	165
cson_kvp_list . . . . .	166
cson_object . . . . .	166
cson_object_iterator . . . . .	167
cson_output_opt . . . . .	167
cson_parse_info . . . . .	169
cson_parse_opt . . . . .	170
cson_parser . . . . .	170
cson_string . . . . .	171
cson_value . . . . .	172
cson_value_api . . . . .	174
cson_value_list . . . . .	175
curfile64_info . . . . .	175
currayhit . . . . .	176
Curve . . . . .	176
curveEvalMachine . . . . .	177
Curvelist . . . . .	177
damper_ptr . . . . .	178
DataPdu . . . . .	178
DataQueryPdu . . . . .	179
DataQueryReliablePdu . . . . .	180
DataReliablePdu . . . . .	180
datChnk . . . . .	181
dct_dc_size_entry . . . . .	181
DDS_header . . . . .	182
DdsLoadInfo . . . . .	182
DeadReckoningParameter . . . . .	183
depth_slice . . . . .	183
DesignatorPdu . . . . .	184
DetonationPdu . . . . .	185
Dict . . . . .	186
DictNode . . . . .	186
directedLine . . . . .	187
dis_class . . . . .	188
dis_socket . . . . .	188
disfieldattr . . . . .	189
DisplayList . . . . .	189
DistributedEmissionsFamilyPdu . . . . .	190
draw_call_params . . . . .	191
duk__bigint . . . . .	192
duk__compile_raw_args . . . . .	192

duk_compiler_stkstate . . . . .	192
duk_decode_context . . . . .	193
duk_encode_context . . . . .	193
duk_exp_limits . . . . .	193
duk_id_lookup_result . . . . .	194
duk_numconv_stringify_ctx . . . . .	194
duk_objlit_state . . . . .	195
duk_pcall_prop_args . . . . .	195
duk_re_disjunction_info . . . . .	195
duk_transform_context . . . . .	196
duk_activation . . . . .	196
duk_bitdecoder_ctx . . . . .	197
duk_bitencoder_ctx . . . . .	197
duk_breakpoint . . . . .	197
duk_bufwriter_ctx . . . . .	198
duk_catcher . . . . .	198
duk_compiler_ctx . . . . .	199
duk_compiler_func . . . . .	199
duk_compiler_instr . . . . .	200
duk_double_union . . . . .	201
duk_function_list_entry . . . . .	201
duk_harray . . . . .	202
duk_hbuffer . . . . .	202
duk_hbuffer_dynamic . . . . .	202
duk_hbuffer_external . . . . .	203
duk_hbuffer_fixed . . . . .	203
duk_hbufobj . . . . .	203
duk_hcompfunc . . . . .	204
duk_heap . . . . .	204
duk_heaphdr . . . . .	205
duk_heaphdr_string . . . . .	205
duk_hnatfunc . . . . .	206
duk_hobject . . . . .	206
duk_hstring . . . . .	207
duk_hstring_external . . . . .	207
duk_hthread . . . . .	208
duk_internal_thread_state . . . . .	208
duk_ispec . . . . .	209
duk_ivalue . . . . .	209
duk_jmpbuf . . . . .	209
duk_json_dec_ctx . . . . .	210
duk_json_enc_ctx . . . . .	210
duk_labelinfo . . . . .	211
duk_lexer_codepoint . . . . .	211
duk_lexer_ctx . . . . .	212
duk_lexer_point . . . . .	212
duk_ljstate . . . . .	213
duk_memory_functions . . . . .	213
duk_number_list_entry . . . . .	213
duk_propaccessor . . . . .	214
duk_propdesc . . . . .	214
duk_propvalue . . . . .	215
duk_re_compiler_ctx . . . . .	215
duk_re_matcher_ctx . . . . .	215
duk_re_token . . . . .	216
duk_strcache . . . . .	216
duk_strtab_entry . . . . .	217
duk_thread_state . . . . .	217

duk_time_components	217
duk_token	218
duk_tval_unused	218
EAI_Extra_Data	219
EAI_ListenerStruct	219
vrml.external.FreeWRLEAI.EAIAsyncMessage	219
sai.eai.EAIAsyncMessage	220
vrml.external.FreeWRLEAI.EAIAsyncQueue	220
sai.eai.EAIAsyncQueue	221
sai.eai.EAIMessage	223
vrml.external.FreeWRLEAI.EAIMessage	223
EAINodeIndexStruct	224
EAINodeParams	224
sai.eai.EAIoutQueue	225
vrml.external.FreeWRLEAI.EAIoutQueue	225
EdgePair	226
EightByteChunk	227
ElectronicEmissionBeamData	227
ElectronicEmissionsPdu	228
ElectronicEmissionSystemData	229
ellipsoid	230
EmitterSystem	230
EntityID	230
EntityInformationFamilyPdu	231
EntityManagementFamilyPdu	231
EntityStatePdu	232
EntityStateUpdatePdu	233
EntityType	233
Environment	234
EnvironmentalProcessPdu	234
EventID	235
vrml.external.field.EventIn	236
vrml.external.field.EventInMFColor	237
vrml.external.field.EventInMFFloat	237
vrml.external.field.EventInMFInt32	238
vrml.external.field.EventInMFNode	239
vrml.external.field.EventInMFRotation	239
vrml.external.field.EventInMFString	240
vrml.external.field.EventInMFVec2f	240
vrml.external.field.EventInMFVec3f	241
vrml.external.field.EventInSFBool	241
vrml.external.field.EventInSFColor	242
vrml.external.field.EventInSFFloat	242
vrml.external.field.EventInSFImage	243
vrml.external.field.EventInSFInt32	243
vrml.external.field.EventInSFNode	244
vrml.external.field.EventInSFRotation	244
vrml.external.field.EventInSFString	245
vrml.external.field.EventInSFTime	245
vrml.external.field.EventInSFVec2f	246
vrml.external.field.EventInSFVec3f	246
EventListener	
org.web3d.x3d.sai.BrowserListener	121
org.web3d.x3d.sai.X3DFieldEventListener	919
EventObject	
org.web3d.x3d.sai.BrowserEvent	117
org.web3d.x3d.sai.X3DFieldEvent	918
vrml.external.field.EventOut	247

vrml.external.field.EventOutMField . . . . .	249
vrml.external.field.EventOutMFColor . . . . .	248
vrml.external.field.EventOutMFFloat . . . . .	248
vrml.external.field.EventOutMFInt32 . . . . .	250
vrml.external.field.EventOutMFNode . . . . .	250
vrml.external.field.EventOutMFRotation . . . . .	251
vrml.external.field.EventOutMFString . . . . .	252
vrml.external.field.EventOutMFVec2f . . . . .	252
vrml.external.field.EventOutMFVec3f . . . . .	253
vrml.external.field.EventOutSFBool . . . . .	254
vrml.external.field.EventOutSFColor . . . . .	254
vrml.external.field.EventOutSFFloat . . . . .	255
vrml.external.field.EventOutSFImage . . . . .	255
vrml.external.field.EventOutSFInt32 . . . . .	256
vrml.external.field.EventOutSFNode . . . . .	257
vrml.external.field.EventOutSFRotation . . . . .	257
vrml.external.field.EventOutSFString . . . . .	258
vrml.external.field.EventOutSFTime . . . . .	258
vrml.external.field.EventOutSFVec2f . . . . .	259
vrml.external.field.EventOutSFVec3f . . . . .	259
vrml.external.field.EventOutObserver . . . . .	253
EventReportPdu . . . . .	260
EventReportReliablePdu . . . . .	260
exception	
freeWRLSAI_cpp::saiException . . . . .	559
freeWRLSAI_cpp::browserNotSharedException . . . . .	121
freeWRLSAI_cpp::connectionException . . . . .	133
freeWRLSAI_cpp::disposedException . . . . .	190
freeWRLSAI_cpp::invalidBrowserException . . . . .	338
freeWRLSAI_cpp::invalidExecutionContextException . . . . .	343
freeWRLSAI_cpp::invalidFieldException . . . . .	346
freeWRLSAI_cpp::InvalidReadableFieldException . . . . .	352
freeWRLSAI_cpp::InvalidWritableFieldException . . . . .	356
freeWRLSAI_cpp::invalidNodeException . . . . .	349
freeWRLSAI_cpp::insufficientCapabilitiesException . . . . .	334
freeWRLSAI_cpp::invalidAccessTypeException . . . . .	338
freeWRLSAI_cpp::InvalidReadableFieldException . . . . .	352
freeWRLSAI_cpp::InvalidWritableFieldException . . . . .	356
freeWRLSAI_cpp::invalidDocumentException . . . . .	339
freeWRLSAI_cpp::invalidImportException . . . . .	347
freeWRLSAI_cpp::invalidOperationTimingException . . . . .	351
freeWRLSAI_cpp::invalidUrlException . . . . .	354
freeWRLSAI_cpp::invalidX3DException . . . . .	357
freeWRLSAI_cpp::nodeInUseException . . . . .	418
freeWRLSAI_cpp::nodeUnavailableException . . . . .	419
freeWRLSAI_cpp::noSuchBrowserException . . . . .	420
freeWRLSAI_cpp::notSupportedException . . . . .	420
freeWRLSAI_cpp::saiCustomException . . . . .	558
freeWRLSAI_cpp::urlUnavailableException . . . . .	645
Exception	
vrml.InvalidVRMLSyntaxException . . . . .	356
vrml.InvalidX3DSyntaxException . . . . .	358
extrusion . . . . .	261
FaceCount . . . . .	262
FastEntityStatePdu . . . . .	262
field_info . . . . .	265
FieldDecl . . . . .	265
vrml.external.field.FieldTypes . . . . .	266

file_in_zip64_read_info_s	267
FirePdu	267
FirstStruct	268
FixedDatum	268
Flist	269
flychord	270
fmtChnk	270
FourByteChunk	271
freewrl_params	271
sai.FreeWRLBrowserInfo	274
sai.FreeWRLRendererInfo	280
ftype	282
FundamentalParameterData	283
FundamentalParameterDataIff	284
fw_MaterialParameters	285
FWBITMAPFILEHEADER	285
FWBITMAPINFO	285
FWBITMAPINFOHEADER	286
vrml.FWCreateField	287
FWFunctionSpec	288
vrml.FWHelper	288
vrml.FWJavaScript	289
vrml.FWJavaScriptBinding	289
sai.FWProfInfo	300
FWPropertySpec	301
FWRGBQUAD	302
FWSNDMSG	312
FWTYPE	313
FWVAL	313
FXV	314
gcgd	314
GLUface	315
GLUhalfEdge	315
GLUmesh	316
GLUtesselator	317
GLUvertex	318
GLwDrawingAreaCallbackStruct	318
GLwDrawingAreaPart	319
GoP	320
GridAxisRecord	320
GridAxisRecordRepresentation0	320
GridAxisRecordRepresentation1	321
GridAxisRecordRepresentation2	321
gridBoundaryChain	322
GriddedDataPdu	322
Gridline	323
GridVertex	324
gridWrap	325
GUINamedType	325
GUIScreen	326
vrml.external.IBrowser	327
vrml.external.Browser	116
IffAtcNavAidsLayer1Pdu	328
IffAtcNavAidsLayer2Pdu	329
IffFundamentalData	330
iiglobal	330
IllegalArgumentException	
vrml.InvalidEventInException	340

vrml.InvalidEventOutException . . . . .	342
vrml.InvalidExposedFieldException . . . . .	344
vrml.InvalidFieldChangeException . . . . .	345
vrml.InvalidFieldException . . . . .	346
vrml.InvalidRouteException . . . . .	353
IMEXPORT . . . . .	333
initialRouteStruct . . . . .	333
IntercomCommunicationsParameters . . . . .	335
IntercomControlPdu . . . . .	336
IntercomSignalPdu . . . . .	337
intersection_info . . . . .	337
IsGroupOfPdu . . . . .	359
IsPartOfPdu . . . . .	360
ivec2 . . . . .	360
ivec4 . . . . .	361
Jarcloc . . . . .	361
JMATRIX . . . . .	362
JSON_config . . . . .	362
JSON_parser_struct . . . . .	364
JSON_value_struct . . . . .	365
key . . . . .	365
keyHit . . . . .	365
keyval . . . . .	366
Knotspec . . . . .	366
Knotvector . . . . .	367
LayerHeader . . . . .	368
layout_scale_item . . . . .	368
layoutmode . . . . .	369
LinearObjectStatePdu . . . . .	369
LinearSegmentParameter . . . . .	370
linkedlist_data_s . . . . .	370
linkedlist_datablock_internal_s . . . . .	371
LogisticsFamilyPdu . . . . .	371
macroblock . . . . .	371
Maplist . . . . .	373
Marking . . . . .	374
matpropstruct . . . . .	374
org.web3d.x3d.sai.Matrix . . . . .	375
org.web3d.x3d.sai.Matrix3 . . . . .	375
org.web3d.x3d.sai.Matrix4 . . . . .	376
mb_addr_inc_entry . . . . .	377
mb_type_entry . . . . .	377
MinefieldDataPdu . . . . .	400
MinefieldFamilyPdu . . . . .	401
MinefieldQueryPdu . . . . .	401
MinefieldResponseNackPdu . . . . .	402
MinefieldStatePdu . . . . .	402
mode_name . . . . .	403
ModulationType . . . . .	403
monoChain . . . . .	404
Monotonizer . . . . .	405
motion_vectors_entry . . . . .	405
Multi_Any . . . . .	405
Multi_Bool . . . . .	406
Multi_Color . . . . .	406
Multi_ColorRGBA . . . . .	406
Multi_Double . . . . .	407
Multi_Float . . . . .	407



Multi_Int32 . . . . .	408
Multi_Matrix3d . . . . .	408
Multi_Matrix3f . . . . .	408
Multi_Matrix4d . . . . .	409
Multi_Matrix4f . . . . .	409
Multi_Node . . . . .	410
Multi_Rotation . . . . .	410
Multi_String . . . . .	410
Multi_Time . . . . .	411
Multi_Vec2d . . . . .	411
Multi_Vec2f . . . . .	412
Multi_Vec3d . . . . .	412
Multi_Vec3f . . . . .	412
Multi_Vec4d . . . . .	413
Multi_Vec4f . . . . .	413
multiTexParams . . . . .	414
myArgs . . . . .	414
MyVertex . . . . .	414
name_num . . . . .	415
NamedLocation . . . . .	415
navmode . . . . .	416
vrml.external.Node . . . . .	416
nodedistance . . . . .	417
NPCClass . . . . .	422
NPObject . . . . .	422
ScriptableObjectBase . . . . .	565
BasePlugin . . . . .	104
nsByteRange . . . . .	423
nsIFactory . . . . .	
nsIPluginHostOld . . . . .	439
nsIPluginOld . . . . .	472
nsIInputStream . . . . .	
nsIPluginInputStream . . . . .	441
nsISupports . . . . .	
nsIAuthenticationInfo . . . . .	423
nsICookieStorage . . . . .	424
nsIFileUtilities . . . . .	425
nsIHTTPHeaderListener . . . . .	428
nsIJVMAuthTools . . . . .	429
nsIPlugin . . . . .	430
nsIPluginDocument . . . . .	433
nsIPluginHost . . . . .	434
nsIPluginInstance . . . . .	441
nsIPluginInstanceInternal . . . . .	447
nsIPluginInstanceOld . . . . .	448
nsIPluginInstanceOwner . . . . .	453
nsIPluginInstancePeer . . . . .	455
nsIPluginInstancePeer2 . . . . .	459
nsIPluginInstancePeer2_1_9_1_BRANCH . . . . .	461
nsIPluginManager . . . . .	462
nsIPluginManager2 . . . . .	467
nsIPluginStreamInfo . . . . .	474
nsIPluginStreamListener . . . . .	475
nsIPluginTag . . . . .	478
nsIPluginTagInfo . . . . .	479
nsIPluginTagInfoOld . . . . .	486
nsIPluginTagInfo2 . . . . .	482
nsIScriptablePlugin . . . . .	487

nsIWindowlessPluginInstancePeer . . . . .	488
nsPIPluginInstancePeer . . . . .	489
nsPluginEmbedPrint . . . . .	489
nsPluginEvent . . . . .	490
nsPluginFullPrint . . . . .	490
nsPluginLogging . . . . .	490
nsPluginPrint . . . . .	492
nsPluginRect . . . . .	492
nsPluginWindow . . . . .	493
nsPluginNativeWindow . . . . .	491
NurbsTessellator . . . . .	493
GLUnurbs . . . . .	316
ObjectType . . . . .	498
OneByteChunk . . . . .	499
opened_file . . . . .	502
orient_XYZA . . . . .	503
Orientation . . . . .	503
particle . . . . .	503
Patch . . . . .	504
Patchlist . . . . .	504
pBindable . . . . .	506
pcollision . . . . .	506
pcommon . . . . .	507
pComponent_CubeMapTexturing . . . . .	507
pComponent_EnviroSensor . . . . .	508
pComponent_Followers . . . . .	508
pComponent_Geometry3D . . . . .	508
pComponent_Geospatial . . . . .	509
pComponent_HAnim . . . . .	509
pComponent_KeyDevice . . . . .	509
pComponent_Layering . . . . .	510
pComponent_Layout . . . . .	510
pComponent_NURBS . . . . .	510
pComponent_ParticleSystems . . . . .	511
pComponent_Picking . . . . .	511
pComponent_ProgrammableShaders . . . . .	511
pComponent_Rendering . . . . .	512
pComponent_RigidBodyPhysics . . . . .	512
pComponent_Shape . . . . .	512
pComponent_Sound . . . . .	513
pComponent_Text . . . . .	513
pComponent_VolumeRendering . . . . .	514
pConsoleMessage . . . . .	515
pCParse . . . . .	515
pCParseParser . . . . .	516
pCRoutes . . . . .	516
pCScripts . . . . .	517
pCursorDraw . . . . .	517
pdisplay . . . . .	517
Pdu . . . . .	518
PduContainer . . . . .	518
pEAI_C_CommonFunctions . . . . .	519
pEAICore . . . . .	519
pEAIEventsIn . . . . .	519
pEAIShaders . . . . .	520
pedal_state . . . . .	520
pFrustum . . . . .	521
pict . . . . .	521

pict_image . . . . .	522
Planet . . . . .	522
pLoadTextures . . . . .	522
pMainloop . . . . .	523
Point . . . . .	524
point_XYZ . . . . .	525
point_XYZ3 . . . . .	525
pointer2pointer . . . . .	525
PointObjectStatePdu . . . . .	526
polygon . . . . .	526
polyrep_combiner_data . . . . .	527
Pool . . . . .	527
PooledObj . . . . .	528
Arc . . . . .	96
BezierArc . . . . .	108
Dlnode . . . . .	190
GridTrimVertex . . . . .	324
Mapdesc . . . . .	372
O_curve . . . . .	495
O_nurbscurve . . . . .	495
O_nurbssurface . . . . .	496
O_pwlcurve . . . . .	497
O_surface . . . . .	497
O_trim . . . . .	498
Property . . . . .	536
PwlArc . . . . .	542
Quilt . . . . .	543
pOpenGL_Utils . . . . .	529
pPluginSocket . . . . .	529
ppluginUtils . . . . .	530
pProdCon . . . . .	530
PQhandleElem . . . . .	531
PQnode . . . . .	531
pRasterFont . . . . .	531
pRenderFuncs . . . . .	532
pRenderTextures . . . . .	533
presources . . . . .	533
primStream . . . . .	534
PriorityQ . . . . .	534
profile_entry . . . . .	535
org.web3d.x3d.sai.ProfileInfo . . . . .	535
sai.FWProfileInfo . . . . .	300
proftablestruct . . . . .	536
PropulsionSystemData . . . . .	537
ProtoDefinition . . . . .	537
ProtoFieldDecl . . . . .	538
pSensInterps . . . . .	538
pSnapshot . . . . .	538
Pspec . . . . .	539
Patchspec . . . . .	505
PSStruct . . . . .	539
pstatusbar . . . . .	540
pStreamPoly . . . . .	540
pTess . . . . .	541
pTextures . . . . .	541
pViewer . . . . .	541
pX3DParser . . . . .	542

quaternion . . . . .	543
QuiltSpec . . . . .	544
RadioCommunicationsFamilyPdu . . . . .	544
RadioEntityType . . . . .	545
rb1 . . . . .	545
ReceiverPdu . . . . .	546
RecordQueryReliablePdu . . . . .	546
RecordSet . . . . .	547
rectBlock . . . . .	548
rectBlockArray . . . . .	548
reflexChain . . . . .	549
Relationship . . . . .	549
RemoveEntityPdu . . . . .	549
RemoveEntityReliablePdu . . . . .	550
RenderHints . . . . .	550
RepairCompletePdu . . . . .	551
RepairResponsePdu . . . . .	551
resource_item . . . . .	552
ResupplyCancelPdu . . . . .	553
ResupplyOfferPdu . . . . .	553
ResupplyReceivedPdu . . . . .	554
row32 . . . . .	554
Runnable	
sai.eai.EAInThread . . . . .	222
vrml.external.FreeWRLEAI.EAInThread . . . . .	222
RuntimeException	
org.web3d.x3d.sai.X3DException . . . . .	914
org.web3d.x3d.sai.BrowserNotSharedException . . . . .	122
org.web3d.x3d.sai.ConnectionException . . . . .	133
org.web3d.x3d.sai.ImportedNodeException . . . . .	333
org.web3d.x3d.sai.InsufficientCapabilitiesException . . . . .	334
org.web3d.x3d.sai.InvalidBrowserException . . . . .	339
org.web3d.x3d.sai.InvalidDocumentException . . . . .	340
org.web3d.x3d.sai.InvalidExecutionContextException . . . . .	344
org.web3d.x3d.sai.InvalidFieldException . . . . .	345
org.web3d.x3d.sai.InvalidFieldValueException . . . . .	347
org.web3d.x3d.sai.InvalidNameException . . . . .	348
org.web3d.x3d.sai.InvalidNodeException . . . . .	348
org.web3d.x3d.sai.InvalidOperationTimingException . . . . .	350
org.web3d.x3d.sai.InvalidProtoException . . . . .	352
org.web3d.x3d.sai.InvalidRouteException . . . . .	353
org.web3d.x3d.sai.InvalidURLErrorException . . . . .	354
org.web3d.x3d.sai.InvalidX3DException . . . . .	358
org.web3d.x3d.sai.NodeInUseException . . . . .	417
org.web3d.x3d.sai.NodeUnavailableException . . . . .	418
org.web3d.x3d.sai.NoSuchBrowserException . . . . .	419
org.web3d.x3d.sai.NotSupportedException . . . . .	421
org.web3d.x3d.sai.URLUnavailableException . . . . .	645
sai.eai.UnsupportedFieldTypeException . . . . .	641
vrml.external.exception.InvalidEventInException . . . . .	341
vrml.external.exception.InvalidEventOutException . . . . .	342
vrml.external.exception.InvalidNodeException . . . . .	349
vrml.external.exception.InvalidVrmlException . . . . .	355
vrml.external.FreeWRLEAI.UnsupportedFieldTypeException . . . . .	640
s_renderer_capabilities_t . . . . .	555
s_shader_capabilities . . . . .	555
freeWRLSAI_cpp::saiBrowser . . . . .	557
freeWRLSAI_cpp::saiComponent . . . . .	557

freeWRLSAI_cpp::saiExecutionContext . . . . .	560
freeWRLSAI_cpp::saiField . . . . .	560
freeWRLSAI_cpp::saiNode . . . . .	561
freeWRLSAI_cpp::saiProfileDeclaration . . . . .	561
freeWRLSAI_cpp::saiProto . . . . .	561
freeWRLSAI_cpp::saiRoute . . . . .	562
freeWRLSAI_cpp::saiScene . . . . .	562
sampledLine . . . . .	563
sCollisionGeometry . . . . .	563
sCollisionInfo . . . . .	564
screenextdata . . . . .	564
ScriptFieldDecl . . . . .	567
ScriptFieldInstanceInfo . . . . .	567
ScriptParamList . . . . .	567
SecureClassLoader	
vrml.FWJavaScriptClassLoader . . . . .	290
SeesPdu . . . . .	568
SensStruct . . . . .	568
ServiceRequestPdu . . . . .	569
SetDataPdu . . . . .	569
SetDataReliablePdu . . . . .	570
SetRecordReliablePdu . . . . .	571
sFallInfo . . . . .	572
SFColor . . . . .	574
SFColorRGBA . . . . .	575
SFMatrix3d . . . . .	581
SFMatrix3f . . . . .	581
SFMatrix4d . . . . .	581
SFMatrix4f . . . . .	582
SFRotation . . . . .	583
SFVec2d . . . . .	587
SFVec2f . . . . .	589
SFVec3d . . . . .	590
SFVec3f . . . . .	592
SFVec4d . . . . .	592
SFVec4f . . . . .	593
Shader_Script . . . . .	593
shaderflagsstruct . . . . .	594
shaderTableEntry . . . . .	594
ShaftRPMs . . . . .	594
SignalPdu . . . . .	595
SimulationAddress . . . . .	595
SimulationManagementFamilyPdu . . . . .	596
SimulationManagementWithReliabilityFamilyPdu . . . . .	596
SixByteChunk . . . . .	597
slice . . . . .	597
sNavInfo . . . . .	598
SNDFILE . . . . .	599
Sorter . . . . .	599
ArcSorter . . . . .	98
ArcSdirSorter . . . . .	98
ArcTdirSorter . . . . .	99
FlistSorter . . . . .	269
SphericalHarmonicAntennaPattern . . . . .	600
Splinespec . . . . .	600
ssr . . . . .	601
SSR_request . . . . .	601
stage . . . . .	602

StartResumePdu . . . . .	602
StartResumeReliablePdu . . . . .	603
StopFreezePdu . . . . .	603
StopFreezeReliablePdu . . . . .	604
StoredVertex . . . . .	604
stringint . . . . .	605
Subdivider . . . . .	605
SupplyQuantity . . . . .	606
surfEvalMachine . . . . .	606
sweepRange . . . . .	607
SyntheticEnvironmentFamilyPdu . . . . .	607
SystemID . . . . .	607
targetwindow . . . . .	608
iiglobal::tBindable . . . . .	608
iiglobal::tcollision . . . . .	609
iiglobal::tcommon . . . . .	609
iiglobal::tComponent_CubeMapTexturing . . . . .	609
iiglobal::tComponent_EnvironSensor . . . . .	610
iiglobal::tComponent_Followers . . . . .	610
iiglobal::tComponent_Geometry3D . . . . .	610
iiglobal::tComponent_Geospatial . . . . .	611
iiglobal::tComponent_HAnim . . . . .	611
iiglobal::tComponent_KeyDevice . . . . .	611
iiglobal::tComponent_Layering . . . . .	612
iiglobal::tComponent_Layout . . . . .	612
iiglobal::tComponent_NURBS . . . . .	612
iiglobal::tComponent_ParticleSystems . . . . .	613
iiglobal::tComponent_Picking . . . . .	613
iiglobal::tComponent_ProgrammableShaders . . . . .	613
iiglobal::tComponent_Rendering . . . . .	614
iiglobal::tComponent_RigidBodyPhysics . . . . .	614
iiglobal::tComponent_Shape . . . . .	614
iiglobal::tComponent_Sound . . . . .	615
iiglobal::tComponent_Text . . . . .	615
iiglobal::tComponent_VolumeRendering . . . . .	615
iiglobal::tComponent_VRML1 . . . . .	616
iiglobal::tConsoleMessage . . . . .	616
tcontenttype . . . . .	616
iiglobal::tCParse . . . . .	617
iiglobal::tCParseParser . . . . .	617
iiglobal::tCRoutes . . . . .	617
iiglobal::tCScripts . . . . .	618
iiglobal::tCursorDraw . . . . .	618
iiglobal::tdisplay . . . . .	618
iiglobal::tEAI_C_CommonFunctions . . . . .	619
iiglobal::tEAICore . . . . .	619
iiglobal::tEAIEventsIn . . . . .	619
iiglobal::tEAIShaders . . . . .	620
text_combiner_data . . . . .	620
textureTableIndexStruct . . . . .	621
textureVertexInfo . . . . .	621
iiglobal::tFrustum . . . . .	622
Thread . . . . .	
sai.eai.EAIAsyncThread . . . . .	221
sai.eai.EAIoutThread . . . . .	225
vrml.external.FreeWRLEAI.EAIAsyncThread . . . . .	221
vrml.external.FreeWRLEAI.EAIoutThread . . . . .	226
iiglobal::tinternalc . . . . .	622

iiglobal::tLoadTextures . . . . .	622
tm_unz_s . . . . .	623
tm_zip_s . . . . .	623
iiglobal::tMainloop . . . . .	624
iiglobal::tOpenGL_Utils . . . . .	624
Touch . . . . .	625
iiglobal::tPluginSocket . . . . .	626
iiglobal::tpluginUtils . . . . .	626
iiglobal::tProdCon . . . . .	626
TrackJamTarget . . . . .	627
TransferControlRequestPdu . . . . .	627
TransmitterPdu . . . . .	628
treeNode . . . . .	629
iiglobal::tRenderFuncs . . . . .	629
trenderstate . . . . .	630
iiglobal::tRenderTextures . . . . .	630
iiglobal::tresources . . . . .	631
Trimline . . . . .	631
TrimRegion . . . . .	632
CoveAndTiler . . . . .	157
Slicer . . . . .	597
Hull . . . . .	326
Mesher . . . . .	378
Slicer . . . . .	597
Mesher . . . . .	378
TrimVertex . . . . .	632
TrimVertexPool . . . . .	633
iiglobal::tSensInterps . . . . .	633
iiglobal::tSnapshot . . . . .	633
iiglobal::tstatusbar . . . . .	634
iiglobal::tStreamPoly . . . . .	634
iiglobal::tTess . . . . .	634
iiglobal::tTextures . . . . .	635
iiglobal::tthreads . . . . .	635
iiglobal::tViewer . . . . .	636
TwoByteChunk . . . . .	636
iiglobal::tX3DParser . . . . .	636
UaPdu . . . . .	637
Uarray . . . . .	638
un1 . . . . .	639
unca . . . . .	639
Uni_String . . . . .	639
unitsB . . . . .	640
unz64_file_pos_s . . . . .	641
unz64_s . . . . .	642
unz_file_info64_internal_s . . . . .	642
unz_file_info64_s . . . . .	643
unz_file_info_s . . . . .	643
unz_file_pos_s . . . . .	644
unz_global_info64_s . . . . .	644
unz_global_info_s . . . . .	644
usehit . . . . .	646
VariableDatum . . . . .	646
Varray . . . . .	647
vec2 . . . . .	647
vec4 . . . . .	648
Vector . . . . .	648
Vector3Double . . . . .	648

Vector3Float . . . . .	649
VectoringNozzleSystemData . . . . .	649
vertexArray . . . . .	650
sai.eai.VField . . . . .	650
sai.eai.VMFCOLOR . . . . .	660
sai.eai.VMFFloat . . . . .	661
sai.eai.VMFInt32 . . . . .	662
sai.eai.VMFRotation . . . . .	663
sai.eai.VMFString . . . . .	665
sai.eai.VMFVec2f . . . . .	666
sai.eai.VMFVec3f . . . . .	667
sai.eai.VSFBool . . . . .	673
sai.eai.VSFColor . . . . .	673
sai.eai.VSFFloat . . . . .	675
sai.eai.VSFImage . . . . .	676
sai.eai.VSFInt32 . . . . .	677
sai.eai.VSFRotation . . . . .	679
sai.eai.VSFString . . . . .	679
sai.eai.VSFTime . . . . .	680
sai.eai.VSFVec2f . . . . .	682
sai.eai.VSFVec3f . . . . .	683
vrml.external.FreeWRLEAI.VField . . . . .	652
vrml.external.FreeWRLEAI.VMFCOLOR . . . . .	660
vrml.external.FreeWRLEAI.VMFFloat . . . . .	662
vrml.external.FreeWRLEAI.VMFInt32 . . . . .	663
vrml.external.FreeWRLEAI.VMFRotation . . . . .	664
vrml.external.FreeWRLEAI.VMFString . . . . .	665
vrml.external.FreeWRLEAI.VMFVec2f . . . . .	666
vrml.external.FreeWRLEAI.VMFVec3f . . . . .	668
vrml.external.FreeWRLEAI.VSFBool . . . . .	672
vrml.external.FreeWRLEAI.VSFColor . . . . .	674
vrml.external.FreeWRLEAI.VSFFloat . . . . .	674
vrml.external.FreeWRLEAI.VSFImage . . . . .	676
vrml.external.FreeWRLEAI.VSFInt32 . . . . .	677
vrml.external.FreeWRLEAI.VSFRotation . . . . .	678
vrml.external.FreeWRLEAI.VSFString . . . . .	680
vrml.external.FreeWRLEAI.VSFTime . . . . .	681
vrml.external.FreeWRLEAI.VSFVec2f . . . . .	682
vrml.external.FreeWRLEAI.VSFVec3f . . . . .	684
vid_stream . . . . .	653
viewer . . . . .	655
viewer_examine . . . . .	656
viewer_fly . . . . .	657
viewer_inplane . . . . .	657
viewer_walk . . . . .	657
viewer_ypz . . . . .	658
sai.eai.VIP . . . . .	658
vrml.external.FreeWRLEAI.VIP . . . . .	659
void3 . . . . .	668
VRMLLexer . . . . .	669
sai.eai.VRMLObject . . . . .	669
vrml.external.FreeWRLEAI.VRMLObject . . . . .	670
sai.eai.VRMLObjectObserver . . . . .	671
vrml.external.FreeWRLEAI.VRMLObjectObserver . . . . .	671
VRMLParser . . . . .	672
walk_cbdata . . . . .	684
WarfareFamilyPdu . . . . .	685
WEB3DNATIVE . . . . .	685



X3D_Anchor . . . . .	686
X3D_Appearance . . . . .	686
X3D_Arc2D . . . . .	687
X3D_ArcClose2D . . . . .	688
X3D_AudioClip . . . . .	688
X3D_BackdropBackground . . . . .	689
X3D_Background . . . . .	690
X3D_BallJoint . . . . .	691
X3D_Billboard . . . . .	692
X3D_BlendedVolumeStyle . . . . .	692
X3D_BooleanFilter . . . . .	693
X3D_BooleanSequencer . . . . .	694
X3D_BooleanToggle . . . . .	695
X3D_BooleanTrigger . . . . .	695
X3D_BoundaryEnhancementVolumeStyle . . . . .	696
X3D_BoundedPhysicsModel . . . . .	697
X3D_Box . . . . .	697
X3D_CADAssembly . . . . .	698
X3D_CADFace . . . . .	699
X3D_CADLayer . . . . .	699
X3D_CADPart . . . . .	700
X3D_CalibratedCameraSensor . . . . .	701
X3D_CartoonVolumeStyle . . . . .	701
X3D_Circle2D . . . . .	702
X3D_ClipPlane . . . . .	702
X3D_CollidableOffset . . . . .	703
X3D_CollidableShape . . . . .	704
X3D_Collision . . . . .	704
X3D_CollisionCollection . . . . .	705
X3D_CollisionSensor . . . . .	706
X3D_CollisionSpace . . . . .	707
X3D_Color . . . . .	707
X3D_ColorChaser . . . . .	708
X3D_ColorDamper . . . . .	709
X3D_ColorInterpolator . . . . .	710
X3D_ColorRGBA . . . . .	710
X3D_ComposedCubeMapTexture . . . . .	711
X3D_ComposedShader . . . . .	712
X3D_ComposedTexture3D . . . . .	712
X3D_ComposedVolumeStyle . . . . .	713
X3D_CompositeVolumeStyle . . . . .	714
X3D_Cone . . . . .	714
X3D_ConeEmitter . . . . .	715
X3D_Contact . . . . .	716
X3D_Contour2D . . . . .	717
X3D_ContourPolyline2D . . . . .	717
X3D_Coordinate . . . . .	718
X3D_CoordinateChaser . . . . .	718
X3D_CoordinateDamper . . . . .	719
X3D_CoordinateDouble . . . . .	720
X3D_CoordinateInterpolator . . . . .	721
X3D_CoordinateInterpolator2D . . . . .	721
X3D_Cylinder . . . . .	722
X3D_CylinderSensor . . . . .	723
X3D_DirectionalLight . . . . .	724
X3D_DISEntityManager . . . . .	724
X3D_DISEntityTypeMapping . . . . .	726
X3D_Disk2D . . . . .	726

X3D_DoubleAxisHingeJoint . . . . .	727
X3D_EaseInEaseOut . . . . .	728
X3D_EdgeEnhancementVolumeStyle . . . . .	729
X3D_Effect . . . . .	730
X3D_EffectPart . . . . .	730
X3D_ElevationGrid . . . . .	731
X3D_EspduTransform . . . . .	732
X3D_ExplosionEmitter . . . . .	735
X3D_Extrusion . . . . .	735
X3D_FillProperties . . . . .	736
X3D_FloatVertexAttribute . . . . .	737
X3D_Fog . . . . .	738
X3D_FogCoordinate . . . . .	738
X3D_FontStyle . . . . .	739
X3D_ForcePhysicsModel . . . . .	740
X3D_GeneratedCubeMapTexture . . . . .	740
X3D_GeoConvert . . . . .	741
X3D_GeoCoordinate . . . . .	742
X3D_GeoElevationGrid . . . . .	742
X3D_GeoLocation . . . . .	743
X3D_GeoLOD . . . . .	744
X3D_GeoMetadata . . . . .	745
X3D_GeoOrigin . . . . .	746
X3D_GeoPlanet . . . . .	747
X3D_GeoPositionInterpolator . . . . .	747
X3D_GeoProximitySensor . . . . .	748
X3D_GeoTouchSensor . . . . .	749
X3D_GeoTransform . . . . .	750
X3D_GeoViewpoint . . . . .	751
X3D_Group . . . . .	752
X3D_HAnimDisplacer . . . . .	753
X3D_HAnimHumanoid . . . . .	753
X3D_HAnimJoint . . . . .	754
X3D_HAnimSegment . . . . .	755
X3D_HAnimSite . . . . .	756
X3D_ImageBackdropBackground . . . . .	757
X3D_ImageCubeMapTexture . . . . .	758
X3D_ImageTexture . . . . .	758
X3D_ImageTexture3D . . . . .	759
X3D_IndexedFaceSet . . . . .	760
X3D_IndexedLineSet . . . . .	761
X3D_IndexedQuadSet . . . . .	762
X3D_IndexedTriangleFanSet . . . . .	762
X3D_IndexedTriangleSet . . . . .	763
X3D_IndexedTriangleStripSet . . . . .	764
X3D_Inline . . . . .	765
X3D_IntegerSequencer . . . . .	766
X3D_IntegerTrigger . . . . .	767
X3D_IsoSurfaceVolumeData . . . . .	767
X3D_KeySensor . . . . .	768
X3D_Layer . . . . .	769
X3D_LayerSet . . . . .	769
X3D_Layout . . . . .	770
X3D_LayoutGroup . . . . .	771
X3D_LayoutLayer . . . . .	771
X3D_LinePickSensor . . . . .	772
X3D_LineProperties . . . . .	773
X3D_LineSensor . . . . .	774

X3D_LineSet . . . . .	775
X3D_LoadSensor . . . . .	775
X3D_LocalFog . . . . .	776
X3D_LOD . . . . .	777
X3D_Material . . . . .	778
X3D_Matrix3VertexAttribute . . . . .	778
X3D_Matrix4VertexAttribute . . . . .	779
X3D_MetadataBoolean . . . . .	779
X3D_MetadataDouble . . . . .	780
X3D_MetadataFloat . . . . .	781
X3D_MetadataInteger . . . . .	781
X3D_MetadataMFBool . . . . .	782
X3D_MetadataMFColor . . . . .	783
X3D_MetadataMFColorRGBA . . . . .	783
X3D_MetadataMFDouble . . . . .	784
X3D_MetadataMFFloat . . . . .	785
X3D_MetadataMFInt32 . . . . .	785
X3D_MetadataMFMatrix3d . . . . .	786
X3D_MetadataMFMatrix3f . . . . .	787
X3D_MetadataMFMatrix4d . . . . .	787
X3D_MetadataMFMatrix4f . . . . .	788
X3D_MetadataMFNode . . . . .	789
X3D_MetadataMFRotation . . . . .	789
X3D_MetadataMFString . . . . .	790
X3D_MetadataMFTime . . . . .	791
X3D_MetadataMFVec2d . . . . .	791
X3D_MetadataMFVec2f . . . . .	792
X3D_MetadataMFVec3d . . . . .	793
X3D_MetadataMFVec3f . . . . .	793
X3D_MetadataMFVec4d . . . . .	794
X3D_MetadataMFVec4f . . . . .	795
X3D_MetadataSet . . . . .	795
X3D_MetadataSFBool . . . . .	796
X3D_MetadataSFColor . . . . .	797
X3D_MetadataSFColorRGBA . . . . .	797
X3D_MetadataSFDouble . . . . .	798
X3D_MetadataSFFloat . . . . .	799
X3D_MetadataSFImage . . . . .	799
X3D_MetadataSFInt32 . . . . .	800
X3D_MetadataSFMatrix3d . . . . .	801
X3D_MetadataSFMatrix3f . . . . .	801
X3D_MetadataSFMatrix4d . . . . .	802
X3D_MetadataSFMatrix4f . . . . .	803
X3D_MetadataSFNode . . . . .	803
X3D_MetadataSFRotation . . . . .	804
X3D_MetadataSFString . . . . .	805
X3D_MetadataSFTime . . . . .	805
X3D_MetadataSFVec2d . . . . .	806
X3D_MetadataSFVec2f . . . . .	807
X3D_MetadataSFVec3d . . . . .	807
X3D_MetadataSFVec3f . . . . .	808
X3D_MetadataSFVec4d . . . . .	809
X3D_MetadataSFVec4f . . . . .	809
X3D_MetadataString . . . . .	810
X3D_MotorJoint . . . . .	811
X3D_MovieTexture . . . . .	812
X3D_MultiTexture . . . . .	813
X3D_MultiTextureCoordinate . . . . .	814

X3D_MultiTextureTransform . . . . .	814
X3D_NavigationInfo . . . . .	815
X3D_Node . . . . .	816
X3D_Normal . . . . .	816
X3D_NormalInterpolator . . . . .	817
X3D_NurbsCurve . . . . .	818
X3D_NurbsCurve2D . . . . .	818
X3D_NurbsOrientationInterpolator . . . . .	819
X3D_NurbsPatchSurface . . . . .	820
X3D_NurbsPositionInterpolator . . . . .	821
X3D_NurbsSet . . . . .	821
X3D_NurbsSurfaceInterpolator . . . . .	822
X3D_NurbsSweptSurface . . . . .	823
X3D_NurbsSwungSurface . . . . .	824
X3D_NurbsTextureCoordinate . . . . .	824
X3D_NurbsTrimmedSurface . . . . .	825
X3D_OpacityMapVolumeStyle . . . . .	826
X3D_OrientationChaser . . . . .	827
X3D_OrientationDamper . . . . .	828
X3D_OrientationInterpolator . . . . .	829
X3D_OrthoViewpoint . . . . .	829
X3D_OSC_Sensor . . . . .	830
X3D_PackagedShader . . . . .	831
X3D_ParticleSystem . . . . .	832
X3D_PickableGroup . . . . .	833
X3D_PixelTexture . . . . .	834
X3D_PixelTexture3D . . . . .	834
X3D_PlaneSensor . . . . .	835
X3D_PointEmitter . . . . .	836
X3D_PointLight . . . . .	837
X3D_PointPickSensor . . . . .	837
X3D_PointSensor . . . . .	838
X3D_PointSet . . . . .	839
X3D_Polyline2D . . . . .	840
X3D_PolylineEmitter . . . . .	840
X3D_Polypoint2D . . . . .	841
X3D_PolyRep . . . . .	842
X3D_PositionChaser . . . . .	843
X3D_PositionChaser2D . . . . .	844
X3D_PositionDamper . . . . .	845
X3D_PositionDamper2D . . . . .	846
X3D_PositionInterpolator . . . . .	847
X3D_PositionInterpolator2D . . . . .	847
X3D_PrimitivePickSensor . . . . .	848
X3D_ProgramShader . . . . .	849
X3D_ProjectionVolumeStyle . . . . .	849
X3D_Proto . . . . .	850
X3D_ProximitySensor . . . . .	851
X3D_QuadSet . . . . .	852
X3D_ReceiverPdu . . . . .	853
X3D_Rectangle2D . . . . .	854
X3D_RigidBody . . . . .	855
X3D_RigidBodyCollection . . . . .	856
X3D_ScalarChaser . . . . .	857
X3D_ScalarDamper . . . . .	858
X3D_ScalarInterpolator . . . . .	859
X3D_ScreenFontStyle . . . . .	859
X3D_ScreenGroup . . . . .	860

X3D_Script . . . . .	861
X3D_SegmentedVolumeData . . . . .	861
X3D_ShadedVolumeStyle . . . . .	862
X3D_ShaderPart . . . . .	863
X3D_ShaderProgram . . . . .	863
X3D_Shape . . . . .	864
X3D_SignalPdu . . . . .	865
X3D_SilhouetteEnhancementVolumeStyle . . . . .	866
X3D_SingleAxisHingeJoint . . . . .	867
X3D_SliderJoint . . . . .	868
X3D_Sound . . . . .	869
X3D_Sphere . . . . .	869
X3D_SphereSensor . . . . .	870
X3D_SplinePositionInterpolator . . . . .	871
X3D_SplinePositionInterpolator2D . . . . .	872
X3D_SplineScalarInterpolator . . . . .	872
X3D_SpotLight . . . . .	873
X3D_SquadOrientationInterpolator . . . . .	874
X3D_StaticGroup . . . . .	875
X3D_StringSensor . . . . .	875
X3D_SurfaceEmitter . . . . .	876
X3D_Switch . . . . .	877
X3D_Teapot . . . . .	878
X3D_TexCoordChaser2D . . . . .	878
X3D_TexCoordDamper2D . . . . .	879
X3D_Text . . . . .	880
X3D_TextureBackground . . . . .	881
X3D_TextureCoordinate . . . . .	882
X3D_TextureCoordinate3D . . . . .	882
X3D_TextureCoordinate4D . . . . .	883
X3D_TextureCoordinateGenerator . . . . .	883
X3D_TextureProperties . . . . .	884
X3D_TextureTransform . . . . .	885
X3D_TextureTransform3D . . . . .	885
X3D_TextureTransformMatrix3D . . . . .	886
X3D_TimeSensor . . . . .	886
X3D_TimeTrigger . . . . .	887
X3D_ToneMappedVolumeStyle . . . . .	888
X3D_TouchSensor . . . . .	889
X3D_TrackingSensor . . . . .	889
X3D_Transform . . . . .	890
X3D_TransformSensor . . . . .	891
X3D_TransmitterPdu . . . . .	892
X3D_TriangleFanSet . . . . .	893
X3D_TriangleSet . . . . .	894
X3D_TriangleSet2D . . . . .	895
X3D_TriangleStripSet . . . . .	896
X3D_TwoSidedMaterial . . . . .	896
X3D_UniversalJoint . . . . .	897
X3D_Viewpoint . . . . .	898
X3D_ViewpointGroup . . . . .	899
X3D_Viewport . . . . .	900
X3D_Virt . . . . .	901
X3D_VisibilitySensor . . . . .	901
X3D_VolumeData . . . . .	902
X3D_VolumeEmitter . . . . .	903
X3D_VolumePickSensor . . . . .	903
X3D_WindPhysicsModel . . . . .	904

X3D_WorldInfo . . . . .	905
org.web3d.x3d.sai.X3DBoundedObject . . . . .	908
org.web3d.x3d.sai.X3DGroupingNode . . . . .	922
org.web3d.x3d.sai.X3DComponent . . . . .	910
sai.FreeWRLComponent . . . . .	274
org.web3d.x3d.sai.X3DExecutionContext . . . . .	915
org.web3d.x3d.sai.X3DScene . . . . .	932
sai.FreeWRLScene . . . . .	281
org.web3d.x3d.sai.X3DField . . . . .	916
org.web3d.x3d.sai.MField . . . . .	384
org.web3d.x3d.sai.MFBool . . . . .	378
org.web3d.x3d.sai.MFColor . . . . .	380
sai.FWMFColor . . . . .	291
org.web3d.x3d.sai.MFColorRGBA . . . . .	381
sai.FWMFColorRGBA . . . . .	291
org.web3d.x3d.sai.MFDouble . . . . .	381
sai.FWMFDouble . . . . .	292
org.web3d.x3d.sai.MFFloat . . . . .	382
sai.FWMFFloat . . . . .	293
org.web3d.x3d.sai.MFImage . . . . .	386
org.web3d.x3d.sai.MFInt32 . . . . .	387
sai.FWMFInt32 . . . . .	294
org.web3d.x3d.sai.MFNode . . . . .	388
sai.FWMFNode . . . . .	294
org.web3d.x3d.sai.MFRotation . . . . .	390
sai.FWMFRotation . . . . .	295
org.web3d.x3d.sai.MFString . . . . .	392
sai.FWMFString . . . . .	296
org.web3d.x3d.sai.MFTime . . . . .	393
org.web3d.x3d.sai.MFVec2d . . . . .	395
sai.FWMFVec2d . . . . .	297
org.web3d.x3d.sai.MFVec2f . . . . .	397
sai.FWMFVec2f . . . . .	297
org.web3d.x3d.sai.MFVec3d . . . . .	397
sai.FWMFVec3d . . . . .	298
org.web3d.x3d.sai.MFVec3f . . . . .	399
sai.FWMFVec3f . . . . .	299
sai.FreeWRLMField . . . . .	278
sai.FWMFColor . . . . .	291
sai.FWMFColorRGBA . . . . .	291
sai.FWMFDouble . . . . .	292
sai.FWMFFloat . . . . .	293
sai.FWMFInt32 . . . . .	294
sai.FWMFNode . . . . .	294
sai.FWMFRotation . . . . .	295
sai.FWMFString . . . . .	296
sai.FWMFVec2d . . . . .	297
sai.FWMFVec2f . . . . .	297
sai.FWMFVec3d . . . . .	298
sai.FWMFVec3f . . . . .	299
org.web3d.x3d.sai.SFBool . . . . .	572
sai.FWSFBool . . . . .	303
org.web3d.x3d.sai.SFColor . . . . .	575
sai.FWSFColor . . . . .	304
org.web3d.x3d.sai.SFColorRGBA . . . . .	576

sai.FWSFColorRGBA	305
org.web3d.x3d.sai.SFDouble	576
sai.FWSFDouble	305
org.web3d.x3d.sai.SFFloat	578
sai.FWSFFloat	306
org.web3d.x3d.sai.SFImage	579
sai.FWSFImage	306
org.web3d.x3d.sai.SFInt32	580
sai.FWSFInt32	307
org.web3d.x3d.sai.SFNode	582
sai.FWSFNode	308
org.web3d.x3d.sai.SFRotation	584
sai.FWSFRotation	308
org.web3d.x3d.sai.SFString	586
sai.FWSFString	309
org.web3d.x3d.sai.SFTime	587
sai.FWSFTime	309
org.web3d.x3d.sai.SFVec2d	588
sai.FWSFVec2d	310
org.web3d.x3d.sai.SFVec2f	589
sai.FWSFVec2f	311
org.web3d.x3d.sai.SFVec3d	590
sai.FWSFVec3d	311
org.web3d.x3d.sai.SFVec3f	592
sai.FWSFVec3f	312
sai.FreeWRLField	275
sai.FreeWRLMField	278
sai.FWSFBool	303
sai.FWSFColor	304
sai.FWSFColorRGBA	305
sai.FWSFDouble	305
sai.FWSFFloat	306
sai.FWSFImage	306
sai.FWSFInt32	307
sai.FWSFNode	308
sai.FWSFRotation	308
sai.FWSFString	309
sai.FWSFTime	309
sai.FWSFVec2d	310
sai.FWSFVec2f	311
sai.FWSFVec3d	311
sai.FWSFVec3f	312
org.web3d.x3d.sai.X3DFieldDefinition	918
sai.FreeWRLFieldDefinition	276
org.web3d.x3d.sai.X3DFieldTypes	919
sai.FreeWRLFieldTypes	277
org.web3d.x3d.sai.X3DMetadataObject	925
org.web3d.x3d.sai.X3DNode	926
org.web3d.x3d.sai.X3DAppearanceChildNode	905
org.web3d.x3d.sai.X3DMaterialNode	925
org.web3d.x3d.sai.X3DTextureNode	938
org.web3d.x3d.sai.X3DTexture2DNode	937
org.web3d.x3d.sai.X3DTextureTransformNode	939
org.web3d.x3d.sai.X3DTextureTransform2DNode	939
org.web3d.x3d.sai.X3DAppearanceNode	906

org.web3d.x3d.sai.X3DChildNode . . . . .	909
org.web3d.x3d.sai.X3DBindableNode . . . . .	908
org.web3d.x3d.sai.X3DBackgroundNode . . . . .	907
org.web3d.x3d.sai.X3DGroupingNode . . . . .	922
org.web3d.x3d.sai.X3DInfoNode . . . . .	922
org.web3d.x3d.sai.X3DInterpolatorNode . . . . .	923
org.web3d.x3d.sai.X3DLightNode . . . . .	924
org.web3d.x3d.sai.X3DScriptNode . . . . .	933
org.web3d.x3d.sai.X3DSensorNode . . . . .	934
org.web3d.x3d.sai.X3DEnvironmentalSensorNode . . . . .	913
org.web3d.x3d.sai.X3DKeyDeviceSensorNode . . . . .	923
org.web3d.x3d.sai.X3DNetworkSensorNode . . . . .	926
org.web3d.x3d.sai.X3DPointingDeviceSensorNode . . . . .	930
org.web3d.x3d.sai.X3DDragSensorNode . . . . .	912
org.web3d.x3d.sai.X3DTouchSensorNode . . . . .	941
org.web3d.x3d.sai.X3DSequencerNode . . . . .	934
org.web3d.x3d.sai.X3DShapeNode . . . . .	935
org.web3d.x3d.sai.X3DSoundNode . . . . .	935
org.web3d.x3d.sai.X3DTimeDependentNode . . . . .	940
org.web3d.x3d.sai.X3DAudioClipNode . . . . .	906
org.web3d.x3d.sai.X3DTriggerNode . . . . .	941
org.web3d.x3d.sai.X3DFontStyleNode . . . . .	920
org.web3d.x3d.sai.X3DGeometricPropertyNode . . . . .	921
org.web3d.x3d.sai.X3DColorNode . . . . .	910
org.web3d.x3d.sai.X3DCoordinateNode . . . . .	912
org.web3d.x3d.sai.X3DNormalNode . . . . .	928
org.web3d.x3d.sai.X3DTextureCoordinateNode . . . . .	937
org.web3d.x3d.sai.X3DGeometryNode . . . . .	921
org.web3d.x3d.sai.X3DComposedGeometryNode . . . . .	911
org.web3d.x3d.sai.X3DParametricGeometryNode . . . . .	929
org.web3d.x3d.sai.X3DTextNode . . . . .	936
org.web3d.x3d.sai.X3DProtoInstance . . . . .	931
sai.FWProtoInstance . . . . .	302
sai.FreeWRLNode . . . . .	279
sai.FWProtoInstance . . . . .	302
org.web3d.x3d.sai.X3DNodeTypes . . . . .	927
sai.FreeWRLNodeTypes . . . . .	279
org.web3d.x3d.sai.X3DProtoDeclaration . . . . .	930
org.web3d.x3d.sai.X3DExternProtoDeclaration . . . . .	916
sai.FWExternProtoDeclaration . . . . .	287
sai.FWProtoDeclaration . . . . .	301
sai.FWProtoDeclaration . . . . .	301
org.web3d.x3d.sai.X3DRoute . . . . .	931
sai.FWRoute . . . . .	303
org.web3d.x3d.sai.X3DScriptImplementation . . . . .	933
org.web3d.x3d.sai.X3DPerFrameObserverScript . . . . .	929
org.web3d.x3d.sai.X3DSoundSourceNode . . . . .	936
org.web3d.x3d.sai.X3DUrlObject . . . . .	942
org.web3d.x3d.sai.X3DAudioClipNode . . . . .	906
org.web3d.x3d.sai.X3DScriptNode . . . . .	933
xml_user_data . . . . .	942
XY . . . . .	943
zip64_internal . . . . .	943
zip_fileinfo . . . . .	944
zlib_filefunc64_32_def_s . . . . .	944
zlib_filefunc64_def_s . . . . .	944



---

zlib_filefunc_def_s . . . . .	945
zone . . . . .	945



## Chapter 3

# Data Structure Index

### 3.1 Data Structures

Here are the data structures with brief descriptions:

<b>_AnyNative</b>	57
<b>_Atlas</b>	57
<b>_AtlasEntry</b>	58
<b>_AtlasFont</b>	58
<b>_BrowserNative</b>	59
<b>_BUTitem</b>	59
<b>_cd_list_t</b>	59
<b>_contenttype</b>	60
<b>_CRnodeStruct</b>	60
<b>_FW_PluginInstance</b>	60
<b>_geosys</b>	61
<b>_GLwDrawingAreaClassPart</b>	61
<b>_GLwDrawingAreaClassRec</b>	62
<b>_GLwDrawingAreaRec</b>	62
<b>_GUIElement</b>	62
<b>_intX3D_MFBool</b>	63
<b>_intX3D_MFColor</b>	63
<b>_intX3D_MFColorRGBA</b>	63
<b>_intX3D_MFFloat</b>	64
<b>_intX3D_MFImage</b>	64
<b>_intX3D_SFInt32</b>	64
<b>_intX3D_MFNode</b>	65
<b>_intX3D_MFRotation</b>	65
<b>_intX3D_MFString</b>	65
<b>_intX3D_MFTime</b>	66
<b>_intX3D_MFVec2d</b>	66
<b>_intX3D_MFVec2f</b>	66
<b>_intX3D_MFVec3d</b>	67
<b>_intX3D_MFVec3f</b>	67
<b>_intX3D_SFBool</b>	67
<b>_intX3D_SFColor</b>	68
<b>_intX3D_SFColorRGBA</b>	68
<b>_intX3D_SFFloat</b>	68
<b>_intX3D_SFImage</b>	69
<b>_intX3D_SFInt32</b>	69

<code>_intX3D_SFNode</code>	69
<code>_intX3D_SFRotation</code>	70
<code>_intX3D_SFString</code>	70
<code>_intX3D_SFTime</code>	70
<code>_intX3D_SFVec2d</code>	71
<code>_intX3D_SFVec2f</code>	71
<code>_intX3D_SFVec3d</code>	71
<code>_intX3D_SFVec3f</code>	72
<code>_intX3DEventIn</code>	72
<code>NPByteRange</code>	72
<code>NPEmbedPrint</code>	73
<code>NPFfullPrint</code>	73
<code>NPImageExpose</code>	74
<code>NPNetscapeFuncs</code>	74
<code>NPP</code>	75
<code>NPPluginFuncs</code>	76
<code>NPPrint</code>	76
<code>NPRect</code>	77
<code>NPSavedData</code>	77
<code>NPSize</code>	77
<code>NPStream</code>	78
<code>NPString</code>	78
<code>NPVariant</code>	78
<code>NPWindow</code>	79
<code>_s_list_t</code>	79
<code>freeWRLSAI_cpp::_SAIParameter</code>	80
<code>SFColorNative</code>	80
<code>SFColorRGBANative</code>	80
<code>SFImageNative</code>	81
<code>SFNodeNative</code>	81
<code>SFRotationNative</code>	81
<code>SFVec2fNative</code>	82
<code>SFVec3dNative</code>	82
<code>SFVec3fNative</code>	82
<code>SFVec4dNative</code>	83
<code>SFVec4fNative</code>	83
<code>_urlRequest</code>	83
<code>_X3DNode</code>	84
<code>AcknowledgePdu</code>	84
<code>AcknowledgeReliablePdu</code>	85
<code>AcousticBeamData</code>	85
<code>AcousticBeamFundamentalParameter</code>	86
<code>AcousticEmitter</code>	86
<code>AcousticEmitterSystem</code>	87
<code>AcousticEmitterSystemData</code>	88
<code>ActionRequestPdu</code>	89
<code>ActionRequestReliablePdu</code>	90
<code>ActionResponsePdu</code>	90
<code>ActionResponseReliablePdu</code>	91
<code>ActiveRegion</code>	91
<code>AggregateID</code>	92
<code>AggregateMarking</code>	92
<code>AggregateStatePdu</code>	93
<code>AggregateType</code>	94
<code>AngularVelocityVector</code>	95
<code>AntennaLocation</code>	95
<code>anyVrml</code>	95
<code>ApaData</code>	96

Arc	96
ArcSdirSorter	98
ArcSorter	98
ArcTdirSorter	99
ArcTessellator	100
ArealObjectStatePdu	100
ArgListType	101
ArticulationParameter	101
AtlasEntrySet	102
Backend	102
vrml.BaseNode	103
BasePlugin	104
BasicCurveEvaluator	105
BasicSurfaceEvaluator	105
BeamAntennaPattern	107
BeamData	108
BezierArc	108
bezierPatch	109
bezierPatchMesh	110
Bin	110
bindablestack	111
block	111
Breakpt	112
brotoDefpair	112
brotoIS	113
brotoRoute	113
brouteEnd	114
org.web3d.x3d.sai.Browser	114
vrml.Browser	115
vrml.external.Browser	116
org.web3d.x3d.sai.BrowserEvent	117
sai.BrowserFactory	118
org.web3d.x3d.sai.BrowserFactoryImpl	118
vrml.external.BrowserGlobals	119
sai.BrowserGlobals	119
org.web3d.x3d.sai.BrowserInterface	120
vrml.external.BrowserInterface	120
org.web3d.x3d.sai.BrowserListener	121
freeWRLSAI_cpp::browserNotSharedException	121
org.web3d.x3d.sai.BrowserNotSharedException	122
Buffer	122
BurstDescriptor	123
CachedVertex	123
CachingEvaluator	123
cbDataExactName	124
cbDataRootNameAndRouteDir	125
CdIIFreeWRL	125
chardata	126
chaser_ptrs	127
cline	127
ClockTime	127
coded_block_pattern_entry	128
CollisionElasticPdu	128
CollisionPdu	129
colorScheme	130
command	130
CommentPdu	131
CommentReliablePdu	131

<code>org.web3d.x3d.sai.ComponentInfo</code>	132
<code>connection_info_struct</code>	132
<code>org.web3d.x3d.sai.ConnectionException</code>	133
<code>freeWRLSAI_cpp::connectionException</code>	133
<code>consoleLine</code>	134
<code>vrml.ConstField</code>	134
<code>vrml.field.ConstMFColor</code>	135
<code>vrml.field.ConstMFFloat</code>	136
<code>vrml.ConstMField</code>	136
<code>vrml.field.ConstMFInt32</code>	138
<code>vrml.field.ConstMFNode</code>	138
<code>vrml.field.ConstMFRotation</code>	139
<code>vrml.field.ConstMFString</code>	140
<code>vrml.field.ConstMFTime</code>	141
<code>vrml.field.ConstMFVec2f</code>	141
<code>vrml.field.ConstMFVec3f</code>	142
<code>vrml.field.ConstSFBool</code>	143
<code>vrml.field.ConstSFColor</code>	144
<code>vrml.field.ConstSFFloat</code>	144
<code>vrml.field.ConstSFImage</code>	145
<code>vrml.field.ConstSFInt32</code>	146
<code>vrml.field.ConstSFNode</code>	147
<code>vrml.field.ConstSFRotation</code>	147
<code>vrml.field.ConstSFString</code>	148
<code>vrml.field.ConstSFTime</code>	149
<code>vrml.field.ConstSFVec2f</code>	149
<code>vrml.field.ConstSFVec3f</code>	150
<code>contenttype_captiontext</code>	151
<code>contenttype_e3dmouse</code>	151
<code>contenttype_layer</code>	152
<code>contenttype_multitouch</code>	152
<code>contenttype_orientation</code>	153
<code>contenttype_quadrant</code>	153
<code>contenttype_scene</code>	153
<code>contenttype_splitter</code>	154
<code>contenttype_statusbar</code>	154
<code>contenttype_stereo_anaglyph</code>	154
<code>contenttype_stereo_shutter</code>	155
<code>contenttype_stereo_sidebyside</code>	155
<code>contenttype_stereo_updown</code>	155
<code>contenttype_switch</code>	156
<code>contenttype_textpanel</code>	156
<code>contenttype_texturegrid</code>	157
<code>CoveAndTiler</code>	157
<code>CPlugin</code>	158
<code>CR_RegStruct</code>	159
<code>CreateEntityPdu</code>	159
<code>CreateEntityReliablePdu</code>	160
<code>CRjsnameStruct</code>	160
<code>CRscriptStruct</code>	161
<code>CRStruct</code>	161
<code>cson_array</code>	162
<code>cson_buffer</code>	
A generic buffer class	162
<code>cson_data_source_StringSource_</code>	
Internal type to hold state for a JSON input string	164
<code>cson_kvp</code>	
A key/value pair collection	165

<b>cson_kvp_list</b>	166
<b>cson_object</b>	166
<b>cson_object_iterator</b>	
An iterator type for traversing object properties	167
<b>cson_output_opt</b>	
Client-configurable options for the cson_output() family of functions	167
<b>cson_parse_info</b>	
A class for holding JSON parser information	169
<b>cson_parse_opt</b>	170
<b>cson_parser</b>	170
<b>cson_string</b>	
Strings are allocated as an instances of this class with N+1 trailing bytes, where N is the length of the string being allocated	171
<b>cson_value</b>	172
<b>cson_value_api</b>	
This type holds the "vtbl" for type-specific operations when working with <b>cson_value</b> (p. 172) objects	174
<b>cson_value_list</b>	175
<b>curfile64_info</b>	175
<b>curarrayhit</b>	176
<b>Curve</b>	176
<b>curveEvalMachine</b>	177
<b>Curvelist</b>	177
<b>damper_ptr</b>	178
<b>DataPdu</b>	178
<b>DataQueryPdu</b>	179
<b>DataQueryReliablePdu</b>	180
<b>DataReliablePdu</b>	180
<b>datChnk</b>	181
<b>dct_dc_size_entry</b>	181
<b>DDS_header</b>	182
<b>DdsLoadInfo</b>	182
<b>DeadReckoningParameter</b>	183
<b>depth_slice</b>	183
<b>DesignatorPdu</b>	184
<b>DetonationPdu</b>	185
<b>Dict</b>	186
<b>DictNode</b>	186
<b>directedLine</b>	187
<b>dis_class</b>	188
<b>dis_socket</b>	188
<b>disfieldattr</b>	189
<b>DisplayList</b>	189
<b>freeWRLSAI_cpp::disposedException</b>	190
<b>DistributedEmissionsFamilyPdu</b>	190
<b>DlNode</b>	190
<b>draw_call_params</b>	191
<b>duk_bigint</b>	192
<b>duk_compile_raw_args</b>	192
<b>duk_compiler_stkstate</b>	192
<b>duk_decode_context</b>	193
<b>duk_encode_context</b>	193
<b>duk_exp_limits</b>	193
<b>duk_id_lookup_result</b>	194
<b>duk_numconv_stringify_ctx</b>	194
<b>duk_objlit_state</b>	195
<b>duk_pcall_prop_args</b>	195
<b>duk_re_disjunction_info</b>	195

<code>duk_transform_context</code>	196
<code>duk_activation</code>	196
<code>duk_bitdecoder_ctx</code>	197
<code>duk_bitencoder_ctx</code>	197
<code>duk_breakpoint</code>	197
<code>duk_bufwriter_ctx</code>	198
<code>duk_catcher</code>	198
<code>duk_compiler_ctx</code>	199
<code>duk_compiler_func</code>	199
<code>duk_compiler_instr</code>	200
<code>duk_double_union</code>	201
<code>duk_function_list_entry</code>	201
<code>duk_harray</code>	202
<code>duk_hbuffer</code>	202
<code>duk_hbuffer_dynamic</code>	202
<code>duk_hbuffer_external</code>	203
<code>duk_hbuffer_fixed</code>	203
<code>duk_hbufobj</code>	203
<code>duk_hcompfunc</code>	204
<code>duk_heap</code>	204
<code>duk_heaphdr</code>	205
<code>duk_heaphdr_string</code>	205
<code>duk_hnatfunc</code>	206
<code>duk_hobject</code>	206
<code>duk_hstring</code>	207
<code>duk_hstring_external</code>	207
<code>duk_hthread</code>	208
<code>duk_internal_thread_state</code>	208
<code>duk_ispec</code>	209
<code>duk_ivalue</code>	209
<code>duk_jmpbuf</code>	209
<code>duk_json_dec_ctx</code>	210
<code>duk_json_enc_ctx</code>	210
<code>duk_labelinfo</code>	211
<code>duk_lexer_codepoint</code>	211
<code>duk_lexer_ctx</code>	212
<code>duk_lexer_point</code>	212
<code>duk_ljstate</code>	213
<code>duk_memory_functions</code>	213
<code>duk_number_list_entry</code>	213
<code>duk_propaccessor</code>	214
<code>duk_propdesc</code>	214
<code>duk_propvalue</code>	215
<code>duk_re_compiler_ctx</code>	215
<code>duk_re_matcher_ctx</code>	215
<code>duk_re_token</code>	216
<code>duk_strcache</code>	216
<code>duk_strtab_entry</code>	217
<code>duk_thread_state</code>	217
<code>duk_time_components</code>	217
<code>duk_token</code>	218
<code>duk_tval_unused</code>	218
<code>EAI_Extra_Data</code>	219
<code>EAI_ListenerStruct</code>	219
<code>vrml.external.FreeWRLEAI.EAIAsyncMessage</code>	219
<code>sai.eai.EAIAsyncMessage</code>	220
<code>vrml.external.FreeWRLEAI.EAIAsyncQueue</code>	220
<code>sai.eai.EAIAsyncQueue</code>	221



sai.eai.EAIAsyncThread	221
vrml.external.FreeWRLEAI.EAIAsyncThread	221
sai.eai.EAInThread	222
vrml.external.FreeWRLEAI.EAInThread	222
sai.eai.EAIMessage	223
vrml.external.FreeWRLEAI.EAIMessage	223
EAIModelIndexStruct	224
EAINodeParams	224
sai.eai.EAOutQueue	225
vrml.external.FreeWRLEAI.EAOutQueue	225
sai.eai.EAOutThread	225
vrml.external.FreeWRLEAI.EAOutThread	226
EdgePair	226
EightByteChunk	227
ElectronicEmissionBeamData	227
ElectronicEmissionsPdu	228
ElectronicEmissionSystemData	229
ellipsoid	230
EmitterSystem	230
EntityID	230
EntityInformationFamilyPdu	231
EntityManagementFamilyPdu	231
EntityStatePdu	232
EntityStateUpdatePdu	233
EntityType	233
Environment	234
EnvironmentalProcessPdu	234
vrml.Event	235
EventID	235
vrml.external.field.EventIn	236
vrml.external.field.EventInMFColor	237
vrml.external.field.EventInMFFloat	237
vrml.external.field.EventInMFInt32	238
vrml.external.field.EventInMFNode	239
vrml.external.field.EventInMFRotation	239
vrml.external.field.EventInMFString	240
vrml.external.field.EventInMFVec2f	240
vrml.external.field.EventInMFVec3f	241
vrml.external.field.EventInSFBool	241
vrml.external.field.EventInSFColor	242
vrml.external.field.EventInSFFloat	242
vrml.external.field.EventInSFImage	243
vrml.external.field.EventInSFInt32	243
vrml.external.field.EventInSFNode	244
vrml.external.field.EventInSFRotation	244
vrml.external.field.EventInSFString	245
vrml.external.field.EventInSFTime	245
vrml.external.field.EventInSFVec2f	246
vrml.external.field.EventInSFVec3f	246
vrml.external.field.EventOut	247
vrml.external.field.EventOutMFColor	248
vrml.external.field.EventOutMFFloat	248
vrml.external.field.EventOutMField	249
vrml.external.field.EventOutMFInt32	250
vrml.external.field.EventOutMFNode	250
vrml.external.field.EventOutMFRotation	251
vrml.external.field.EventOutMFString	252
vrml.external.field.EventOutMFVec2f	252

vrml.external.field.EventOutMFVec3f	253
vrml.external.field.EventOutObserver	253
vrml.external.field.EventOutSFBool	254
vrml.external.field.EventOutSFColor	254
vrml.external.field.EventOutSFFloat	255
vrml.external.field.EventOutSFImage	255
vrml.external.field.EventOutSFInt32	256
vrml.external.field.EventOutSFNode	257
vrml.external.field.EventOutSFRotation	257
vrml.external.field.EventOutSFString	258
vrml.external.field.EventOutSFTime	258
vrml.external.field.EventOutSFVec2f	259
vrml.external.field.EventOutSFVec3f	259
EventReportPdu	260
EventReportReliablePdu	260
org.web3d.x3d.sai.ExternalBrowser	261
extrusion	261
FaceCount	262
FastEntityStatePdu	262
vrml.Field	264
field_info	265
FieldDecl	265
vrml.external.field.FieldTypes	266
file_in_zip64_read_info_s	267
FirePdu	267
FirstStruct	268
FixedDatum	268
Flist	269
FlistSorter	269
flychord	270
fmtChnk	270
FourByteChunk	271
freewrl_params	
Initialization	271
sai.FreeWRLBrowser	272
sai.FreeWRLBrowserInfo	274
sai.FreeWRLComponent	274
sai.FreeWRLField	275
sai.FreeWRLFieldDefinition	276
sai.FreeWRLFieldTypes	277
sai.FreeWRLMField	278
sai.FreeWRLNode	279
sai.FreeWRLNodeTypes	279
sai.FreeWRLRendererInfo	280
sai.FreeWRLScene	281
ftype	282
FundamentalParameterData	283
FundamentalParameterDataIff	284
fw_MaterialParameters	285
FWBITMAPFILEHEADER	285
FWBITMAPINFO	285
FWBITMAPINFOHEADER	286
sai.FWComponentInfo	286
vrml.FWCreateField	287
sai.FWExternProtoDeclaration	287
FWFunctionSpec	288
vrml.FWHelper	288
vrml.FWJavaScript	289

vrml.FWJavaScriptBinding	289
vrml.FWJavaScriptClassLoader	290
sai.FWMFColor	291
sai.FWMFColorRGBA	291
sai.FWMFDouble	292
sai.FWMFFloat	293
sai.FWMFInt32	294
sai.FWMFNode	294
sai.FWMFRotation	295
sai.FWMFString	296
sai.FWMFVec2d	297
sai.FWMFVec2f	297
sai.FWMFVec3d	298
sai.FWMFVec3f	299
sai.FWProfileInfo	300
sai.FWProfInfo	300
FWPropertySpec	301
sai.FWProtoDeclaration	301
sai.FWProtoInstance	302
FWRGBQUAD	302
sai.FWRoute	303
sai.FWSFBool	303
sai.FWSFColor	304
sai.FWSFColorRGBA	305
sai.FWSFDouble	305
sai.FWSFFloat	306
sai.FWSFImage	306
sai.FWSFInt32	307
sai.FWSFNode	308
sai.FWSFRotation	308
sai.FWSFString	309
sai.FWSFTime	309
sai.FWSFVec2d	310
sai.FWSFVec2f	311
sai.FWSFVec3d	311
sai.FWSFVec3f	312
FWSNDMSG	312
FWTYPE	313
FWVAL	313
FXV	314
gcgd	314
GLUface	315
GLUhalfEdge	315
GLUmesh	316
GLUnurbs	316
GLUtesselator	317
GLUvertex	318
GLwDrawingAreaCallbackStruct	318
GLwDrawingAreaPart	319
GoP	320
GridAxisRecord	320
GridAxisRecordRepresentation0	320
GridAxisRecordRepresentation1	321
GridAxisRecordRepresentation2	321
gridBoundaryChain	322
GriddedDataPdu	322
Gridline	323
GridTrimVertex	324

GridVertex	324
gridWrap	325
GUINamedType	325
GUIScreen	326
Hull	326
vrml.external.IBrowser	327
IffAtcNavAidsLayer1Pdu	328
IffAtcNavAidsLayer2Pdu	329
IffFundamentalData	330
iiglobal	330
IMEXPORT	333
org.web3d.x3d.sai.ImportedException	333
initialRouteStruct	333
freeWRLSAI_cpp::insufficientCapabilitiesException	334
org.web3d.x3d.sai.InsufficientCapabilitiesException	334
IntercomCommunicationsParameters	335
IntercomControlPdu	336
IntercomSignalPdu	337
intersection_info	337
freeWRLSAI_cpp::invalidAccessTypeException	338
freeWRLSAI_cpp::invalidBrowserException	338
org.web3d.x3d.sai.InvalidBrowserException	339
freeWRLSAI_cpp::invalidDocumentException	339
org.web3d.x3d.sai.InvalidDocumentException	340
vrml.InvalidEventInException	340
vrml.external.exception.InvalidEventInException	341
vrml.InvalidEventOutException	342
vrml.external.exception.InvalidEventOutException	342
freeWRLSAI_cpp::invalidExecutionContextException	343
org.web3d.x3d.sai.InvalidExecutionContextException	344
vrml.InvalidExposedFieldException	344
vrml.InvalidFieldChangeException	345
org.web3d.x3d.sai.InvalidFieldException	345
freeWRLSAI_cpp::invalidFieldException	346
vrml.InvalidFieldException	346
org.web3d.x3d.sai.InvalidFieldValueException	347
freeWRLSAI_cpp::invalidImportException	347
org.web3d.x3d.sai.InvalidNameException	348
org.web3d.x3d.sai.InvalidNodeException	348
freeWRLSAI_cpp::invalidNodeException	349
vrml.external.exception.InvalidNodeException	349
org.web3d.x3d.sai.InvalidOperationTimingException	350
freeWRLSAI_cpp::invalidOperationTimingException	351
org.web3d.x3d.sai.InvalidProtoException	352
freeWRLSAI_cpp::InvalidReadableFieldException	352
vrml.InvalidRouteException	353
org.web3d.x3d.sai.InvalidRouteException	353
org.web3d.x3d.sai.InvalidURLErrorException	354
freeWRLSAI_cpp::invalidUriException	354
vrml.external.exception.InvalidVrmlException	355
vrml.InvalidVRMLSyntaxException	356
freeWRLSAI_cpp::InvalidWritableFieldException	356
freeWRLSAI_cpp::invalidX3DException	357
org.web3d.x3d.sai.InvalidX3DException	358
vrml.InvalidX3DSyntaxException	358
IsGroupOfPdu	359
IsPartOfPdu	360
ivec2	360

<b>ivec4</b>	361
<b>Jarcloc</b>	361
<b>JMATRIX</b>	362
<b>JSON_config</b>	
The structure used to configure a JSON parser object	362
<b>JSON_parser_struct</b>	364
<b>JSON_value_struct</b>	365
<b>key</b>	365
<b>keyHit</b>	365
<b>keyval</b>	366
<b>Knotspec</b>	366
<b>Knotvector</b>	367
<b>LayerHeader</b>	368
<b>layout_scale_item</b>	368
<b>layoutmode</b>	369
<b>LinearObjectStatePdu</b>	369
<b>LinearSegmentParameter</b>	370
<b>linkedlist_data_s</b>	370
<b>linkedlist_datablock_internal_s</b>	371
<b>LogisticsFamilyPdu</b>	371
<b>macroblock</b>	371
<b>Mapdesc</b>	372
<b>Maplist</b>	373
<b>Marking</b>	374
<b>matpropstruct</b>	374
<b>org.web3d.x3d.sai.Matrix</b>	375
<b>org.web3d.x3d.sai.Matrix3</b>	375
<b>org.web3d.x3d.sai.Matrix4</b>	376
<b>mb_addr_inc_entry</b>	377
<b>mb_type_entry</b>	377
<b>Mesh</b>	378
<b>org.web3d.x3d.sai.MFBool</b>	378
<b>vrml.field.MFColor</b>	379
<b>org.web3d.x3d.sai.MFColor</b>	380
<b>org.web3d.x3d.sai.MFColorRGBA</b>	381
<b>org.web3d.x3d.sai.MFDouble</b>	381
<b>org.web3d.x3d.sai.MFFloat</b>	382
<b>vrml.field.MFFloat</b>	383
<b>org.web3d.x3d.sai.MField</b>	384
<b>vrml.MField</b>	385
<b>org.web3d.x3d.sai.MFImage</b>	386
<b>org.web3d.x3d.sai.MFInt32</b>	387
<b>vrml.field.MFInt32</b>	387
<b>org.web3d.x3d.sai.MFNode</b>	388
<b>vrml.field.MFNode</b>	389
<b>org.web3d.x3d.sai.MFRotation</b>	390
<b>vrml.field.MFRotation</b>	391
<b>org.web3d.x3d.sai.MFString</b>	392
<b>vrml.field.MFString</b>	392
<b>org.web3d.x3d.sai.MFTime</b>	393
<b>vrml.field.MFTime</b>	394
<b>org.web3d.x3d.sai.MFVec2d</b>	395
<b>vrml.field.MFVec2f</b>	396
<b>org.web3d.x3d.sai.MFVec2f</b>	397
<b>org.web3d.x3d.sai.MFVec3d</b>	397
<b>vrml.field.MFVec3f</b>	398
<b>org.web3d.x3d.sai.MFVec3f</b>	399
<b>MinefieldDataPdu</b>	400

MinefieldFamilyPdu	401
MinefieldQueryPdu	401
MinefieldResponseNackPdu	402
MinefieldStatePdu	402
mode_name	403
ModulationType	403
monoChain	404
Monotonizer	405
motion_vectors_entry	405
Multi_Any	405
Multi_Bool	406
Multi_Color	406
Multi_ColorRGBA	406
Multi_Double	407
Multi_Float	407
Multi_Int32	408
Multi_Matrix3d	408
Multi_Matrix3f	408
Multi_Matrix4d	409
Multi_Matrix4f	409
Multi_Node	410
Multi_Rotation	410
Multi_String	410
Multi_Time	411
Multi_Vec2d	411
Multi_Vec2f	412
Multi_Vec3d	412
Multi_Vec3f	412
Multi_Vec4d	413
Multi_Vec4f	413
multiTexParams	414
myArgs	414
MyVertex	414
name_num	415
NamedLocation	415
navmode	416
vrml.node.Node	416
vrml.external.Node	416
nodedistance	417
org.web3d.x3d.sai.NodeInUseException	417
freeWRLSAI_cpp::nodeInUseException	418
org.web3d.x3d.sai.NodeUnavailableException	418
freeWRLSAI_cpp::nodeUnavailableException	419
org.web3d.x3d.sai.NoSuchBrowserException	419
freeWRLSAI_cpp::noSuchBrowserException	420
freeWRLSAI_cpp::notSupportedException	420
org.web3d.x3d.sai.NotSupportedException	421
NPCClass	422
NPObject	422
nsByteRange	423
nsIAuthenticationInfo	423
nsICookieStorage	424
nsIFileUtilities	
The nsIFileUtilities (p. 425) interface provides access to random file operations	425
nsIHTTPHeaderListener	
The nsIHTTPHeaderListener (p. 428) interface allows plugin authors to access HTTP Response headers after issuing an nsIPluginHost (p. 434)::{GetURL,PostURL}() call	428
nsIJVMAuthTools	429

<b>nsIPlugin</b>	430
<b>nsIPluginDocument</b>	433
<b>nsIPluginHost</b>	434
<b>nsIPluginHostOld</b>	439
<b>nsIPluginInputStream</b>	
The <b>nsIPluginInputStream</b> (p. 441) interface ..	441
<b>nsIPluginInstance</b>	441
<b>nsIPluginInstanceInternal</b>	447
<b>nsIPluginInstanceOld</b>	
The <b>nsIPluginInstance</b> (p. 441) interface is the minimum interface plugin developers need to support in order to implement a plugin instance	448
<b>nsIPluginInstanceOwner</b>	453
<b>nsIPluginInstancePeer</b>	
The <b>nsIPluginInstancePeer</b> (p. 455) interface is the set of operations implemented by the browser to support a plugin instance	455
<b>nsIPluginInstancePeer2</b>	
The <b>nsIPluginInstancePeer2</b> (p. 459) interface extends the <b>nsIPluginInstancePeer</b> (p. 455) interface, providing access to functionality provided by newer browsers	459
<b>nsIPluginInstancePeer2_1_9_1_BRANCH</b>	461
<b>nsIPluginManager</b>	462
<b>nsIPluginManager2</b>	
Plugin Manager 2 Interface These extensions to <b>nsIPluginManager</b> (p. 462) are only available in Communicator 5.0	467
<b>nsIPluginOld</b>	
The <b>nsIPlugin</b> (p. 430) interface is the minimum interface plugin developers need to support in order to implement a plugin	472
<b>nsIPluginStreamInfo</b>	
NsIPluginStreamInfo	474
<b>nsIPluginStreamListener</b>	
NsIPluginStreamListener	475
<b>nsIPluginTag</b>	478
<b>nsIPluginTagInfo</b>	
Plugin Tag Info Interface This interface provides information about the HTML tag on the page	479
<b>nsIPluginTagInfo2</b>	
NsIPluginTagInfo2	482
<b>nsIPluginTagInfoOld</b>	
Plugin Tag Info Interface This interface provides information about the HTML tag on the page	486
<b>nsIScriptablePlugin</b>	
Interface for exposing scriptable plugin methods to JavaScript via XPConnect	487
<b>nsIWindowlessPluginInstancePeer</b>	488
<b>nsPIPluginInstancePeer</b>	489
<b>nsPluginEmbedPrint</b>	489
<b>nsPluginEvent</b>	490
<b>nsPluginFullPrint</b>	490
<b>nsPluginLogging</b>	490
<b>nsPluginNativeWindow</b>	
Base class for native plugin window implementations	491
<b>nsPluginPrint</b>	492
<b>nsPluginRect</b>	492
<b>nsPluginWindow</b>	493
<b>NurbsTessellator</b>	493
<b>O_curve</b>	495
<b>O_nurbscurve</b>	495
<b>O_nurbssurface</b>	496
<b>O_pwlcurve</b>	497
<b>O_surface</b>	497
<b>O_trim</b>	498
<b>ObjectType</b>	498

OneByteChunk	499
OpenGLCurveEvaluator	499
OpenGLSurfaceEvaluator	501
opened_file	502
orient_XYZA	503
Orientation	503
particle	503
Patch	504
Patchlist	504
Patchspec	505
pBindable	506
pcollision	506
pcommon	507
pComponent_CubeMapTexturing	507
pComponent_EnvironSensor	508
pComponent_Followers	508
pComponent_Geometry3D	508
pComponent_Geospatial	509
pComponent_HAnim	509
pComponent_KeyDevice	509
pComponent_Layering	510
pComponent_Layout	510
pComponent_NURBS	510
pComponent_ParticleSystems	511
pComponent_Picking	511
pComponent_ProgrammableShaders	511
pComponent_Rendering	512
pComponent_RigidBodyPhysics	512
pComponent_Shape	512
pComponent_Sound	513
pComponent_Text	513
pComponent_VolumeRendering	514
pConsoleMessage	515
pCParse	515
pCParseParser	516
pCRoutes	516
pCScripts	517
pCursorDraw	517
pdisplay	517
Pdu	518
PduContainer	518
pEAI_C_CommonFunctions	519
pEAICore	519
pEAIEventsIn	519
pEAHelpers	520
pedal_state	520
pFrustum	521
pict	521
pict_image	522
Planet	522
pLoadTextures	522
pMainloop	523
Point	524
point_XYZ	525
point_XYZ3	525
pointer2pointer	525
PointObjectStatePdu	526
polygon	526



polyrep_combiner_data	527
Pool	527
PooledObj	528
pOpenGL_Utils	529
pPluginSocket	529
ppluginUtils	530
pProdCon	530
PQhandleElem	531
PQnode	531
pRasterFont	531
pRenderFuncs	532
pRenderTextures	533
presources	533
primStream	534
PriorityQ	534
profile_entry	535
org.web3d.x3d.sai.ProfileInfo	535
proftablestruct	536
Property	536
PropulsionSystemData	537
ProtoDefinition	537
ProtoFieldDecl	538
pSensInterps	538
pSnapshot	538
Pspec	539
PSStruct	539
pstatusbar	540
pStreamPoly	540
pTess	541
pTextures	541
pViewer	541
PwlArc	542
pX3DParser	542
quaternion	543
Quilt	543
Quiltspec	544
RadioCommunicationsFamilyPdu	544
RadioEntityType	545
rb1	545
ReceiverPdu	546
RecordQueryReliablePdu	546
RecordSet	547
rectBlock	548
rectBlockArray	548
reflexChain	549
Relationship	549
RemoveEntityPdu	549
RemoveEntityReliablePdu	550
Renderhints	550
RepairCompletePdu	551
RepairResponsePdu	551
resource_item	552
ResupplyCancelPdu	553
ResupplyOfferPdu	553
ResupplyReceivedPdu	554
row32	554
s_renderer_capabilities_t	555
s_shader_capabilities	555

freeWRLSAI_cpp::saiBrowser	557
freeWRLSAI_cpp::saiComponent	557
freeWRLSAI_cpp::saiCustomException	558
freeWRLSAI_cpp::saiException	559
freeWRLSAI_cpp::saiExecutionContext	560
freeWRLSAI_cpp::saiField	560
freeWRLSAI_cpp::saiNode	561
freeWRLSAI_cpp::saiProfileDeclaration	561
freeWRLSAI_cpp::saiProto	561
freeWRLSAI_cpp::saiRoute	562
freeWRLSAI_cpp::saiScene	562
sampledLine	563
sCollisionGeometry	563
sCollisionInfo	564
screenextdata	564
vrml.node.Script	565
ScriptablePluginObjectBase	565
ScriptFieldDecl	567
ScriptFieldInstanceInfo	567
ScriptParamList	567
SeesPdu	568
SensStruct	568
ServiceRequestPdu	569
SetDataPdu	569
SetDataReliablePdu	570
SetRecordReliablePdu	571
sFallInfo	572
org.web3d.x3d.sai.SFBool	572
vrml.field.SFBool	573
vrml.field.SFColor	574
SFColor	574
org.web3d.x3d.sai.SFColor	575
SFColorRGBA	575
org.web3d.x3d.sai.SFColorRGBA	576
org.web3d.x3d.sai.SFDouble	576
vrml.field.SFFloat	577
org.web3d.x3d.sai.SFFloat	578
vrml.field.SFImage	578
org.web3d.x3d.sai.SFImage	579
org.web3d.x3d.sai.SFInt32	580
vrml.field.SFInt32	580
SFMatrix3d	581
SFMatrix3f	581
SFMatrix4d	581
SFMatrix4f	582
org.web3d.x3d.sai.SFNode	582
vrml.field.SFNode	583
SFRotation	583
vrml.field.SFRotation	584
org.web3d.x3d.sai.SFRotation	584
vrml.field.SFString	585
org.web3d.x3d.sai.SFString	586
vrml.field.SFTime	586
org.web3d.x3d.sai.SFTime	587
SFVec2d	587
org.web3d.x3d.sai.SFVec2d	588
vrml.field.SFVec2f	588
SFVec2f	589

org.web3d.x3d.sai.SFVec2f	589
SFVec3d	590
org.web3d.x3d.sai.SFVec3d	590
vrml.field.SFVec3f	591
SFVec3f	592
org.web3d.x3d.sai.SFVec3f	592
SFVec4d	592
SFVec4f	593
Shader_Script	593
shaderflagsstruct	594
shaderTableEntry	594
ShaftRPMs	594
SignalPdu	595
SimulationAddress	595
SimulationManagementFamilyPdu	596
SimulationManagementWithReliabilityFamilyPdu	596
SixByteChunk	597
slice	597
Slicer	597
sNavInfo	598
SNDFILE	599
Sorter	599
SphericalHarmonicAntennaPattern	600
Splinespec	600
ssr	601
SSR_request	601
stage	602
StartResumePdu	602
StartResumeReliablePdu	603
StopFreezePdu	603
StopFreezeReliablePdu	604
StoredVertex	604
stringint	605
Subdivider	605
SupplyQuantity	606
surfEvalMachine	606
sweepRange	607
SyntheticEnvironmentFamilyPdu	607
SystemID	607
targetwindow	608
iiglobal::tBindable	608
iiglobal::tcollision	609
iiglobal::tcommon	609
iiglobal::tComponent_CubeMapTexturing	609
iiglobal::tComponent_EnvironSensor	610
iiglobal::tComponent_Followers	610
iiglobal::tComponent_Geometry3D	610
iiglobal::tComponent_Geospatial	611
iiglobal::tComponent_HAnim	611
iiglobal::tComponent_KeyDevice	611
iiglobal::tComponent_Layering	612
iiglobal::tComponent_Layout	612
iiglobal::tComponent_NURBS	612
iiglobal::tComponent_ParticleSystems	613
iiglobal::tComponent_Picking	613
iiglobal::tComponent_ProgrammableShaders	613
iiglobal::tComponent_Rendering	614
iiglobal::tComponent_RigidBodyPhysics	614

iiglobal::tComponent_Shape	614
iiglobal::tComponent_Sound	615
iiglobal::tComponent_Text	615
iiglobal::tComponent_VolumeRendering	615
iiglobal::tComponent_VRML1	616
iiglobal::tConsoleMessage	616
tcontenttype	616
iiglobal::tCParse	617
iiglobal::tCParseParser	617
iiglobal::tCRoutes	617
iiglobal::tCScripts	618
iiglobal::tCursorDraw	618
iiglobal::tdisplay	618
iiglobal::tEAI_C_CommonFunctions	619
iiglobal::tEAICore	619
iiglobal::tEAIEventsIn	619
iiglobal::tEAHelpers	620
text_combiner_data	620
textureTableIndexStruct	621
textureVertexInfo	621
iiglobal::tFrustum	622
iiglobal::tinternalc	622
iiglobal::tLoadTextures	622
tm_unz_s	623
tm_zip_s	623
iiglobal::tMainloop	624
iiglobal::tOpenGL_Utils	624
Touch	625
iiglobal::tPluginSocket	626
iiglobal::tpluginUtils	626
iiglobal::tProdCon	626
TrackJamTarget	627
TransferControlRequestPdu	627
TransmitterPdu	628
treeNode	629
iiglobal::tRenderFuncs	629
trenderstate	630
iiglobal::tRenderTextures	630
iiglobal::tresources	631
Trimline	631
TrimRegion	632
TrimVertex	632
TrimVertexPool	633
iiglobal::tSensInterps	633
iiglobal::tSnapshot	633
iiglobal::tstatusbar	634
iiglobal::tStreamPoly	634
iiglobal::tTess	634
iiglobal::tTextures	635
iiglobal::tthreads	635
iiglobal::tViewer	636
TwoByteChunk	636
iiglobal::tX3DParser	636
UaPdu	637
Uarray	638
un1	639
unca	639
Uni_String	639

unitsB	640
vrml.external.FreeWRLEAI.UnsupportedFieldTypeException	640
sai.eai.UnsupportedFieldTypeException	641
unz64_file_pos_s	641
unz64_s	642
unz_file_info64_internal_s	642
unz_file_info64_s	643
unz_file_info_s	643
unz_file_pos_s	644
unz_global_info64_s	644
unz_global_info_s	644
org.web3d.x3d.sai.URLUnavailableException	645
freeWRLSAI_cpp::urlUnavailableException	645
usehit	646
VariableDatum	646
Varray	647
vec2	647
vec4	648
Vector	648
Vector3Double	648
Vector3Float	649
VectoringNozzleSystemData	649
vertexArray	650
sai.eai.VField	650
vrml.external.FreeWRLEAI.VField	652
vid_stream	653
viewer	655
viewer_examine	656
viewer_fly	657
viewer_inplane	657
viewer_walk	657
viewer_ypz	658
sai.eai.VIP	658
vrml.external.FreeWRLEAI.VIP	659
sai.eai.VMFColor	660
vrml.external.FreeWRLEAI.VMFColor	660
sai.eai.VMFFloat	661
vrml.external.FreeWRLEAI.VMFFloat	662
sai.eai.VMFInt32	662
vrml.external.FreeWRLEAI.VMFInt32	663
sai.eai.VMFRotation	663
vrml.external.FreeWRLEAI.VMFRotation	664
sai.eai.VMFString	665
vrml.external.FreeWRLEAI.VMFString	665
vrml.external.FreeWRLEAI.VMFVec2f	666
sai.eai.VMFVec2f	666
sai.eai.VMFVec3f	667
vrml.external.FreeWRLEAI.VMFVec3f	668
void3	668
VRMLLexer	669
sai.eai.VRMLObject	669
vrml.external.FreeWRLEAI.VRMLObject	670
sai.eai.VRMLObjectObserver	671
vrml.external.FreeWRLEAI.VRMLObjectObserver	671
VRMLParser	672
vrml.external.FreeWRLEAI.VSFBool	672
sai.eai.VSFBool	673
sai.eai.VSFColor	673

vrml.external.FreeWRLEAI.VSFColor	674
vrml.external.FreeWRLEAI.VSFFloat	674
sai.eai.VSFFloat	675
vrml.external.FreeWRLEAI.VSFImage	676
sai.eai.VSFImage	676
sai.eai.VSFInt32	677
vrml.external.FreeWRLEAI.VSFInt32	677
vrml.external.FreeWRLEAI.VSFRotation	678
sai.eai.VSFRotation	679
sai.eai.VSFString	679
vrml.external.FreeWRLEAI.VSFString	680
sai.eai.VSFTime	680
vrml.external.FreeWRLEAI.VSFTime	681
sai.eai.VSFVec2f	682
vrml.external.FreeWRLEAI.VSFVec2f	682
sai.eai.VSFVec3f	683
vrml.external.FreeWRLEAI.VSFVec3f	684
walk_cbdata	684
WarfareFamilyPdu	685
WEB3DNATIVE	685
X3D_Anchor	686
X3D_Appearance	686
X3D_Arc2D	687
X3D_ArcClose2D	688
X3D_AudioClip	688
X3D_BackdropBackground	689
X3D_Background	690
X3D_BallJoint	691
X3D_Billboard	692
X3D_BlendedVolumeStyle	692
X3D_BooleanFilter	693
X3D_BooleanSequencer	694
X3D_BooleanToggle	695
X3D_BooleanTrigger	695
X3D_BoundaryEnhancementVolumeStyle	696
X3D_BoundedPhysicsModel	697
X3D_Box	697
X3D_CADAssembly	698
X3D_CADFace	699
X3D_CADLayer	699
X3D_CADPart	700
X3D_CalibratedCameraSensor	701
X3D_CartoonVolumeStyle	701
X3D_Circle2D	702
X3D_ClipPlane	702
X3D_CollidableOffset	703
X3D_CollidableShape	704
X3D_Collision	704
X3D_CollisionCollection	705
X3D_CollisionSensor	706
X3D_CollisionSpace	707
X3D_Color	707
X3D_ColorChaser	708
X3D_ColorDamper	709
X3D_ColorInterpolator	710
X3D_ColorRGBA	710
X3D_ComposedCubeMapTexture	711
X3D_ComposedShader	712

X3D_ComposedTexture3D	712
X3D_ComposedVolumeStyle	713
X3D_CompositeVolumeStyle	714
X3D_Cone	714
X3D_ConeEmitter	715
X3D_Contact	716
X3D_Contour2D	717
X3D_ContourPolyline2D	717
X3D_Coordinate	718
X3D_CoordinateChaser	718
X3D_CoordinateDamper	719
X3D_CoordinateDouble	720
X3D_CoordinateInterpolator	721
X3D_CoordinateInterpolator2D	721
X3D_Cylinder	722
X3D_CylinderSensor	723
X3D_DirectionalLight	724
X3D_DISEntityManager	724
X3D_DISEntityTypeMapping	726
X3D_Disk2D	726
X3D_DoubleAxisHingeJoint	727
X3D_EaseInEaseOut	728
X3D_EdgeEnhancementVolumeStyle	729
X3D_Effect	730
X3D_EffectPart	730
X3D_ElevationGrid	731
X3D_EspduTransform	732
X3D_ExplosionEmitter	735
X3D_Extrusion	735
X3D_FillProperties	736
X3D_FloatVertexAttribute	737
X3D_Fog	738
X3D_FogCoordinate	738
X3D_FontStyle	739
X3D_ForcePhysicsModel	740
X3D_GeneratedCubeMapTexture	740
X3D_GeoConvert	741
X3D_GeoCoordinate	742
X3D_GeoElevationGrid	742
X3D_GeoLocation	743
X3D_GeoLOD	744
X3D_GeoMetadata	745
X3D_GeoOrigin	746
X3D_GeoPlanet	747
X3D_GeoPositionInterpolator	747
X3D_GeoProximitySensor	748
X3D_GeoTouchSensor	749
X3D_GeoTransform	750
X3D_GeoViewpoint	751
X3D_Group	752
X3D_HAnimDisplacer	753
X3D_HAnimHumanoid	753
X3D_HAnimJoint	754
X3D_HAnimSegment	755
X3D_HAnimSite	756
X3D_ImageBackdropBackground	757
X3D_ImageCubeMapTexture	758
X3D_ImageTexture	758

X3D_ImageTexture3D	759
X3D_IndexedFaceSet	760
X3D_IndexedLineSet	761
X3D_IndexedQuadSet	762
X3D_IndexedTriangleFanSet	762
X3D_IndexedTriangleSet	763
X3D_IndexedTriangleStripSet	764
X3D_Inline	765
X3D_IntegerSequencer	766
X3D_IntegerTrigger	767
X3D_IsoSurfaceVolumeData	767
X3D_KeySensor	768
X3D_Layer	769
X3D_LayerSet	769
X3D_Layout	770
X3D_LayoutGroup	771
X3D_LayoutLayer	771
X3D_LinePickSensor	772
X3D_LineProperties	773
X3D_LineSensor	774
X3D_LineSet	775
X3D_LoadSensor	775
X3D_LocalFog	776
X3D_LOD	777
X3D_Material	778
X3D_Matrix3VertexAttribute	778
X3D_Matrix4VertexAttribute	779
X3D_MetadataBoolean	779
X3D_MetadataDouble	780
X3D_MetadataFloat	781
X3D_MetadataInteger	781
X3D_MetadataMFBool	782
X3D_MetadataMFColor	783
X3D_MetadataMFColorRGBA	783
X3D_MetadataMFDouble	784
X3D_MetadataMFFloat	785
X3D_MetadataMFInt32	785
X3D_MetadataMFMatrix3d	786
X3D_MetadataMFMatrix3f	787
X3D_MetadataMFMatrix4d	787
X3D_MetadataMFMatrix4f	788
X3D_MetadataMFNode	789
X3D_MetadataMFRotation	789
X3D_MetadataMFString	790
X3D_MetadataMFTime	791
X3D_MetadataMFVec2d	791
X3D_MetadataMFVec2f	792
X3D_MetadataMFVec3d	793
X3D_MetadataMFVec3f	793
X3D_MetadataMFVec4d	794
X3D_MetadataMFVec4f	795
X3D_MetadataSet	795
X3D_MetadataSFBool	796
X3D_MetadataSFColor	797
X3D_MetadataSFColorRGBA	797
X3D_MetadataSFDouble	798
X3D_MetadataSFFloat	799
X3D_MetadataSFImage	799



X3D_MetadataSFlnt32	800
X3D_MetadataSFMatrix3d	801
X3D_MetadataSFMatrix3f	801
X3D_MetadataSFMatrix4d	802
X3D_MetadataSFMatrix4f	803
X3D_MetadataSFNode	803
X3D_MetadataSFRotation	804
X3D_MetadataSFString	805
X3D_MetadataSFTime	805
X3D_MetadataSFVec2d	806
X3D_MetadataSFVec2f	807
X3D_MetadataSFVec3d	807
X3D_MetadataSFVec3f	808
X3D_MetadataSFVec4d	809
X3D_MetadataSFVec4f	809
X3D_MetadataString	810
X3D_MotorJoint	811
X3D_MovieTexture	812
X3D_MultiTexture	813
X3D_MultiTextureCoordinate	814
X3D_MultiTextureTransform	814
X3D_NavigationInfo	815
X3D_Node	816
X3D_Normal	816
X3D_NormalInterpolator	817
X3D_NurbsCurve	818
X3D_NurbsCurve2D	818
X3D_NurbsOrientationInterpolator	819
X3D_NurbsPatchSurface	820
X3D_NurbsPositionInterpolator	821
X3D_NurbsSet	821
X3D_NurbsSurfaceInterpolator	822
X3D_NurbsSweptSurface	823
X3D_NurbsSwungSurface	824
X3D_NurbsTextureCoordinate	824
X3D_NurbsTrimmedSurface	825
X3D_OpacityMapVolumeStyle	826
X3D_OrientationChaser	827
X3D_OrientationDamper	828
X3D_OrientationInterpolator	829
X3D_OrthoViewpoint	829
X3D_OSC_Sensor	830
X3D_PackagedShader	831
X3D_ParticleSystem	832
X3D_PickableGroup	833
X3D_PixelTexture	834
X3D_PixelTexture3D	834
X3D_PlaneSensor	835
X3D_PointEmitter	836
X3D_PointLight	837
X3D_PointPickSensor	837
X3D_PointSensor	838
X3D_PointSet	839
X3D_Polyline2D	840
X3D_PolylineEmitter	840
X3D_Polypoint2D	841
X3D_PolyRep	842
X3D_PositionChaser	843

X3D_PositionChaser2D	844
X3D_PositionDamper	845
X3D_PositionDamper2D	846
X3D_PositionInterpolator	847
X3D_PositionInterpolator2D	847
X3D_PrimitivePickSensor	848
X3D_ProgramShader	849
X3D_ProjectionVolumeStyle	849
X3D_Proto	850
X3D_ProximitySensor	851
X3D_QuadSet	852
X3D_ReceiverPdu	853
X3D_Rectangle2D	854
X3D_RigidBody	855
X3D_RigidBodyCollection	856
X3D_ScalarChaser	857
X3D_ScalarDamper	858
X3D_ScalarInterpolator	859
X3D_ScreenFontStyle	859
X3D_ScreenGroup	860
X3D_Script	861
X3D_SegmentedVolumeData	861
X3D_ShadedVolumeStyle	862
X3D_ShaderPart	863
X3D_ShaderProgram	863
X3D_Shape	864
X3D_SignalPdu	865
X3D_SilhouetteEnhancementVolumeStyle	866
X3D_SingleAxisHingeJoint	867
X3D_SliderJoint	868
X3D_Sound	869
X3D_Sphere	869
X3D_SphereSensor	870
X3D_SplinePositionInterpolator	871
X3D_SplinePositionInterpolator2D	872
X3D_SplineScalarInterpolator	872
X3D_SpotLight	873
X3D_SquadOrientationInterpolator	874
X3D_StaticGroup	875
X3D_StringSensor	875
X3D_SurfaceEmitter	876
X3D_Switch	877
X3D_Teapot	878
X3D_TexCoordChaser2D	878
X3D_TexCoordDamper2D	879
X3D_Text	880
X3D_TextureBackground	881
X3D_TextureCoordinate	882
X3D_TextureCoordinate3D	882
X3D_TextureCoordinate4D	883
X3D_TextureCoordinateGenerator	883
X3D_TextureProperties	884
X3D_TextureTransform	885
X3D_TextureTransform3D	885
X3D_TextureTransformMatrix3D	886
X3D_TimeSensor	886
X3D_TimeTrigger	887
X3D_ToneMappedVolumeStyle	888

X3D_TouchSensor	889
X3D_TrackingSensor	889
X3D_Transform	890
X3D_TransformSensor	891
X3D_TransmitterPdu	892
X3D_TriangleFanSet	893
X3D_TriangleSet	894
X3D_TriangleSet2D	895
X3D_TriangleStripSet	896
X3D_TwoSidedMaterial	896
X3D_UniversalJoint	897
X3D_Viewpoint	898
X3D_ViewpointGroup	899
X3D_Viewport	900
X3D_Virt	901
X3D_VisibilitySensor	901
X3D_VolumeData	902
X3D_VolumeEmitter	903
X3D_VolumePickSensor	903
X3D_WindPhysicsModel	904
X3D_WorldInfo	905
org.web3d.x3d.sai.X3DAppearanceChildNode	905
org.web3d.x3d.sai.X3DAppearanceNode	906
org.web3d.x3d.sai.X3DAudioClipNode	906
org.web3d.x3d.sai.X3DBackgroundNode	907
org.web3d.x3d.sai.X3DBindableNode	908
org.web3d.x3d.sai.X3DBoundedObject	908
org.web3d.x3d.sai.X3DChildNode	909
org.web3d.x3d.sai.X3DColorNode	910
org.web3d.x3d.sai.X3DComponent	910
org.web3d.x3d.sai.X3DComposedGeometryNode	911
org.web3d.x3d.sai.X3DCoordinateNode	912
org.web3d.x3d.sai.X3DDragSensorNode	912
org.web3d.x3d.sai.X3DEnvironmentalSensorNode	913
org.web3d.x3d.sai.X3DException	914
org.web3d.x3d.sai.X3DExecutionContext	915
org.web3d.x3d.sai.X3DExternProtoDeclaration	916
org.web3d.x3d.sai.X3DField	916
org.web3d.x3d.sai.X3DFieldDefinition	918
org.web3d.x3d.sai.X3DFieldEvent	918
org.web3d.x3d.sai.X3DFieldEventListener	919
org.web3d.x3d.sai.X3DFieldTypes	919
org.web3d.x3d.sai.X3DFontStyleNode	920
org.web3d.x3d.sai.X3DGeometricPropertyNode	921
org.web3d.x3d.sai.X3DGeometryNode	921
org.web3d.x3d.sai.X3DGroupingNode	922
org.web3d.x3d.sai.X3DInfoNode	922
org.web3d.x3d.sai.X3DInterpolatorNode	923
org.web3d.x3d.sai.X3DKeyDeviceSensorNode	923
org.web3d.x3d.sai.X3DLightNode	924
org.web3d.x3d.sai.X3DMaterialNode	925
org.web3d.x3d.sai.X3DMetadataObject	925
org.web3d.x3d.sai.X3DNetworkSensorNode	926
org.web3d.x3d.sai.X3DNode	926
org.web3d.x3d.sai.X3DNodeTypes	927
org.web3d.x3d.sai.X3DNormalNode	928
org.web3d.x3d.sai.X3DParametricGeometryNode	929
org.web3d.x3d.sai.X3DPerFrameObserverScript	929

org.web3d.x3d.sai.X3DPointingDeviceSensorNode	930
org.web3d.x3d.sai.X3DProtoDeclaration	930
org.web3d.x3d.sai.X3DProtoInstance	931
org.web3d.x3d.sai.X3DRoute	931
org.web3d.x3d.sai.X3DScene	932
org.web3d.x3d.sai.X3DScriptImplementation	933
org.web3d.x3d.sai.X3DScriptNode	933
org.web3d.x3d.sai.X3DSensorNode	934
org.web3d.x3d.sai.X3DSequencerNode	934
org.web3d.x3d.sai.X3DShapeNode	935
org.web3d.x3d.sai.X3DSoundNode	935
org.web3d.x3d.sai.X3DSoundSourceNode	936
org.web3d.x3d.sai.X3DTextNode	936
org.web3d.x3d.sai.X3DTexture2DNode	937
org.web3d.x3d.sai.X3DTextureCoordinateNode	937
org.web3d.x3d.sai.X3DTextureNode	938
org.web3d.x3d.sai.X3DTextureTransform2DNode	939
org.web3d.x3d.sai.X3DTextureTransformNode	939
org.web3d.x3d.sai.X3DTimeDependentNode	940
org.web3d.x3d.sai.X3DTouchSensorNode	941
org.web3d.x3d.sai.X3DTriggerNode	941
org.web3d.x3d.sai.X3DUrlObject	942
xml_user_data	942
XY	943
zip64_internal	943
zip_fileinfo	944
zlib_filefunc64_32_def_s	944
zlib_filefunc64_def_s	944
zlib_filefunc_def_s	945
zone	945

## Chapter 4

# Data Structure Documentation

### 4.1 `_AnyNative` Struct Reference

#### Data Fields

- int **type**
- int **gc**
- int \* **valueChanged**
- union **anyVrml** \* **v**

#### 4.1.1 Detailed Description

Definition at line 45 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

### 4.2 `_Atlas` Struct Reference

#### Data Fields

- char \* **name**
- int **type**
- unsigned char \* **texture**
- int **bytesperpixel**
- **ivec2** **size**
- int **rowheight**
- **ivec2** **pen**

### 4.2.1 Detailed Description

Definition at line 2264 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.3 \_AtlasEntry Struct Reference

### Data Fields

- char \* **name**
- int **type**
- ivec2 **apos**
- ivec2 **size**
- int **ichar**
- ivec2 **pos**
- ivec2 **advance**

### 4.3.1 Detailed Description

Definition at line 2243 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.4 \_AtlasFont Struct Reference

### Data Fields

- char \* **name**
- int **type**
- char \* **path**
- FT\_Face **fontFace**
- int **EMsize**
- **AtlasEntrySet** \* **set**

### 4.4.1 Detailed Description

Definition at line 2287 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.5 `_BrowserNative` Struct Reference

### Data Fields

- `int dummyEntry`

#### 4.5.1 Detailed Description

Definition at line 39 of file `jsNative.h`.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/jsNative.h`

## 4.6 `_BUTitem` Struct Reference

### Data Fields

- `unsigned char * B`
- `BUTitem * prev`
- `BUTitem * next`

#### 4.6.1 Detailed Description

Definition at line 816 of file `MainLoop.c`.

The documentation for this struct was generated from the following file:

- `src/lib/main/MainLoop.c`

## 4.7 `_cd_list_t` Struct Reference

### Data Fields

- `void * elem`
- `struct _cd_list_t * next`
- `struct _cd_list_t * prev`

#### 4.7.1 Detailed Description

Definition at line 85 of file `list.h`.

The documentation for this struct was generated from the following file:

- `src/lib/list.h`

## 4.8 `_contenttype` Struct Reference

### Data Fields

- `tcontenttype t1`

### 4.8.1 Detailed Description

Definition at line 458 of file `MainLoop.c`.

The documentation for this struct was generated from the following file:

- `src/lib/main/MainLoop.c`

## 4.9 `_CRnodeStruct` Struct Reference

### Data Fields

- struct `X3D_Node` \* `routeToNode`
- int `foffset`

### 4.9.1 Detailed Description

Definition at line 38 of file `CRoutes.h`.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/CRoutes.h`

## 4.10 `_FW_PluginInstance` Struct Reference

### Data Fields

- int `interfaceFile` [2]
- Display \* `display`
- int32 `x`
- int32 `y`
- uint32 `width`
- uint32 `height`
- Window `mozwindow`
- Window `fwwindow`
- pid\_t `childPID`
- char \* `fName`
- int `freewrl_running`
- int `interfacePipe` [2]
- char \* `cacheFileName`
- int `cacheFileNameLen`
- FILE \* `logFile`
- char \* `logFileName`



### 4.10.1 Detailed Description

Definition at line 96 of file `plugin_main.c`.

The documentation for this struct was generated from the following file:

- `src/plugin/plugin_main.c`

## 4.11 `_geosys` Struct Reference

### Data Fields

- int `spatial_system`
- int `ellipsoid`
- int `xtm_zone`
- int `xtm_northing_first`
- int `utm_northern_hemisphere`
- int `gd_latitude_first`
- int `geoid_height`
- int `gd_degrees`
- int `relativeHeight`

### 4.11.1 Detailed Description

Definition at line 301 of file `Component_Geospatial.c`.

The documentation for this struct was generated from the following file:

- `src/lib/scenegraph/Component_Geospatial.c`

## 4.12 `_GLwDrawingAreaClassPart` Struct Reference

### Data Fields

- `caddr_t` `extension`

### 4.12.1 Detailed Description

Definition at line 49 of file `GLwDrawAP.h`.

The documentation for this struct was generated from the following file:

- `src/lib/ui/GLwDrawAP.h`

## 4.13 **\_GLwDrawingAreaClassRec** Struct Reference

### Data Fields

- CoreClassPart **core\_class**
- **GLwDrawingAreaClassPart** glwDrawingArea\_class

#### 4.13.1 Detailed Description

Definition at line 68 of file GLwDrawAP.h.

The documentation for this struct was generated from the following file:

- src/lib/ui/GLwDrawAP.h

## 4.14 **\_GLwDrawingAreaRec** Struct Reference

### Data Fields

- CorePart **core**
- **GLwDrawingAreaPart** glwDrawingArea

#### 4.14.1 Detailed Description

Definition at line 123 of file GLwDrawAP.h.

The documentation for this struct was generated from the following file:

- src/lib/ui/GLwDrawAP.h

## 4.15 **\_GUIElement** Struct Reference

### Data Fields

- char \* **name**
- GUIElementType **type**
- void \* **userData**

#### 4.15.1 Detailed Description

Definition at line 2301 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.16 `_intX3D_MFBool` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFBool * p`

#### 4.16.1 Detailed Description

Definition at line 81 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.17 `_intX3D_MFColor` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFColor * p`

#### 4.17.1 Detailed Description

Definition at line 72 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.18 `_intX3D_MFColorRGBA` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFColorRGBA * p`

#### 4.18.1 Detailed Description

Definition at line 73 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.19 `_intX3D_MFFloat` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFFloat * p`

### 4.19.1 Detailed Description

Definition at line 74 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.20 `_intX3D_MFImage` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFImage * p`

### 4.20.1 Detailed Description

Definition at line 85 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.21 `_intX3D_MFInt32` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFInt32 * p`

### 4.21.1 Detailed Description

Definition at line 82 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.22 \_intX3D\_MFNode Struct Reference

### Data Fields

- int **type**
- int **n**
- \_intX3D\_SFNode \* **p**

#### 4.22.1 Detailed Description

Definition at line 83 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.23 \_intX3D\_MFRotation Struct Reference

### Data Fields

- int **type**
- int **n**
- \_intX3D\_SFRotation \* **p**

#### 4.23.1 Detailed Description

Definition at line 76 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.24 \_intX3D\_MFString Struct Reference

### Data Fields

- int **type**
- int **n**
- \_intX3D\_SFString \* **p**

#### 4.24.1 Detailed Description

Definition at line 84 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.25 `_intX3D_MFTime` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFTime * p`

### 4.25.1 Detailed Description

Definition at line 75 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.26 `_intX3D_MFVec2d` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFVec2d * p`

### 4.26.1 Detailed Description

Definition at line 78 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.27 `_intX3D_MFVec2f` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFVec2f * p`

### 4.27.1 Detailed Description

Definition at line 80 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.28 `_intX3D_MFVec3d` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFVec3d * p`

#### 4.28.1 Detailed Description

Definition at line 77 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.29 `_intX3D_MFVec3f` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFVec3f * p`

#### 4.29.1 Detailed Description

Definition at line 79 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.30 `_intX3D_SFBool` Struct Reference

### Data Fields

- `int type`
- `int value`

#### 4.30.1 Detailed Description

Definition at line 57 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.31 `_intX3D_SFColor` Struct Reference

### Data Fields

- int **type**
- float **c** [3]

#### 4.31.1 Detailed Description

Definition at line 65 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.32 `_intX3D_SFColorRGBA` Struct Reference

### Data Fields

- int **type**
- float **r** [4]

#### 4.32.1 Detailed Description

Definition at line 68 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.33 `_intX3D_SFFloat` Struct Reference

### Data Fields

- int **type**
- float **value**

#### 4.33.1 Detailed Description

Definition at line 58 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h



## 4.34 \_intX3D\_SFImage Struct Reference

### Data Fields

- int **type**
- int **len**
- char \* **strptr**

#### 4.34.1 Detailed Description

Definition at line 70 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.35 \_intX3D\_SFInt32 Struct Reference

### Data Fields

- int **type**
- int **value**

#### 4.35.1 Detailed Description

Definition at line 60 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.36 \_intX3D\_SFNode Struct Reference

### Data Fields

- int **type**
- int **adr**

#### 4.36.1 Detailed Description

Definition at line 61 of file X3DNode.h.

The documentation for this struct was generated from the following file:

- src/libeai/X3DNode.h

## 4.37 `_intX3D_SFRotation` Struct Reference

### Data Fields

- `int type`
- `float r [4]`

#### 4.37.1 Detailed Description

Definition at line 62 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.38 `_intX3D_SFString` Struct Reference

### Data Fields

- `int type`
- `int len`
- `char * strptr`

#### 4.38.1 Detailed Description

Definition at line 69 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.39 `_intX3D_SFTIME` Struct Reference

### Data Fields

- `int type`
- `double value`

#### 4.39.1 Detailed Description

Definition at line 59 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.40 `_intX3D_SFVec2d` Struct Reference

### Data Fields

- `int type`
- `double c` [2]

#### 4.40.1 Detailed Description

Definition at line 64 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.41 `_intX3D_SFVec2f` Struct Reference

### Data Fields

- `int type`
- `float c` [2]

#### 4.41.1 Detailed Description

Definition at line 63 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.42 `_intX3D_SFVec3d` Struct Reference

### Data Fields

- `int type`
- `double c` [3]

#### 4.42.1 Detailed Description

Definition at line 67 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.43 `_intX3D_SFVec3f` Struct Reference

### Data Fields

- `int type`
- `float c [3]`

### 4.43.1 Detailed Description

Definition at line 66 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.44 `_intX3DEventIn` Struct Reference

### Data Fields

- `int nodeptr`
- `int offset`
- `int datatype`
- `int datasize`
- `int scripttype`
- `char * field`

### 4.44.1 Detailed Description

Definition at line 133 of file `X3DNode.h`.

The documentation for this struct was generated from the following file:

- `src/libeai/X3DNode.h`

## 4.45 `_NPByteRange` Struct Reference

### Data Fields

- `int32_t offset`
- `uint32_t length`
- `struct _NPByteRange * next`

### 4.45.1 Detailed Description

Definition at line 176 of file `npapi.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/npapi.h`

## 4.46 `_NPEmbedPrint` Struct Reference

### Data Fields

- `NPWindow window`
- `void * platformPrint`

### 4.46.1 Detailed Description

Definition at line 441 of file `npapi.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/npapi.h`

## 4.47 `_NPFullPrint` Struct Reference

### Data Fields

- `NPBool pluginPrinted`
- `NPBool printOne`
- `void * platformPrint`

### 4.47.1 Detailed Description

Definition at line 433 of file `npapi.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/npapi.h`

## 4.48 \_NPImageExpose Struct Reference

### Data Fields

- char \* **data**
- int32\_t **stride**
- int32\_t **depth**
- int32\_t **x**
- int32\_t **y**
- uint32\_t **width**
- uint32\_t **height**
- **NPSize dataSize**
- float **translateX**
- float **translateY**
- float **scaleX**
- float **scaleY**

### 4.48.1 Detailed Description

Definition at line 417 of file npapi.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npapi.h

## 4.49 \_NPNetscapeFuncs Struct Reference

### Data Fields

- uint16\_t **size**
- uint16\_t **version**
- NPN\_GetURLProcPtr **geturl**
- NPN\_PostURLProcPtr **posturl**
- NPN\_RequestReadProcPtr **requestread**
- NPN\_NewStreamProcPtr **newstream**
- NPN\_WriteProcPtr **write**
- NPN\_DestroyStreamProcPtr **destroystream**
- NPN\_StatusProcPtr **status**
- NPN\_UserAgentProcPtr **uagent**
- NPN\_MemAllocProcPtr **memalloc**
- NPN\_MemFreeProcPtr **memfree**
- NPN\_MemFlushProcPtr **memflush**
- NPN\_ReloadPluginsProcPtr **reloadplugins**
- NPN\_GetJavaEnvProcPtr **getJavaEnv**
- NPN\_GetJavaPeerProcPtr **getJavaPeer**
- NPN\_GetURLNotifyProcPtr **geturlnotify**
- NPN\_PostURLNotifyProcPtr **posturlnotify**
- NPN\_GetValueProcPtr **getvalue**
- NPN\_SetValueProcPtr **setvalue**
- NPN\_InvalidateRectProcPtr **invalidaterect**

- NPN\_InvalidateRegionProcPtr **invalidateregion**
- NPN\_ForceRedrawProcPtr **forcedredraw**
- NPN\_GetStringIdentifierProcPtr **getstringidentifier**
- NPN\_GetStringIdentifiersProcPtr **getstringidentifiers**
- NPN\_GetIntIdentifierProcPtr **getintidentifier**
- NPN\_IdentifierIsStringProcPtr **identifierisstring**
- NPN\_UTF8FromIdentifierProcPtr **utf8fromidentifier**
- NPN\_IntFromIdentifierProcPtr **intfromidentifier**
- NPN\_CreateObjectProcPtr **createobject**
- NPN\_RetainObjectProcPtr **retainobject**
- NPN\_ReleaseObjectProcPtr **releaseobject**
- NPN\_InvokeProcPtr **invoke**
- NPN\_InvokeDefaultProcPtr **invokeDefault**
- NPN\_EvaluateProcPtr **evaluate**
- NPN\_GetPropertyProcPtr **getproperty**
- NPN\_SetPropertyProcPtr **setproperty**
- NPN\_RemovePropertyProcPtr **removeproperty**
- NPN\_HasPropertyProcPtr **hasproperty**
- NPN\_HasMethodProcPtr **hasmethod**
- NPN\_ReleaseVariantValueProcPtr **releasevariantvalue**
- NPN\_SetExceptionProcPtr **setexception**
- NPN\_PushPopupsEnabledStateProcPtr **pushpopupsenabledstate**
- NPN\_PopPopupsEnabledStateProcPtr **poppopupsenabledstate**
- NPN\_EnumerateProcPtr **enumerate**
- NPN\_PluginThreadAsyncCallProcPtr **pluginthreadasynccall**
- NPN\_ConstructProcPtr **construct**
- NPN\_GetValueForURLPtr **getvalueforurl**
- NPN\_SetValueForURLPtr **setvalueforurl**
- NPN\_GetAuthenticationInfoPtr **getauthenticationinfo**

#### 4.49.1 Detailed Description

Definition at line 139 of file npfunctions.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npfunctions.h

## 4.50 **\_NPP Struct Reference**

### Data Fields

- void \* **pdata**
- void \* **ndata**

#### 4.50.1 Detailed Description

Definition at line 148 of file npapi.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npapi.h

## 4.51 **\_NPPPluginFuncs Struct Reference**

### Data Fields

- uint16\_t **size**
- uint16\_t **version**
- NPP\_NewProcPtr **newp**
- NPP\_DestroyProcPtr **destroy**
- NPP\_SetWindowProcPtr **setwindow**
- NPP\_NewStreamProcPtr **newstream**
- NPP\_DestroyStreamProcPtr **destroystream**
- NPP\_StreamAsFileProcPtr **asfile**
- NPP\_WriteReadyProcPtr **writeready**
- NPP\_WriteProcPtr **write**
- NPP\_PrintProcPtr **print**
- NPP\_HandleEventProcPtr **event**
- NPP\_URLNotifyProcPtr **urlnotify**
- void \* **javaClass**
- NPP\_GetValueProcPtr **getvalue**
- NPP\_SetValueProcPtr **setvalue**

### 4.51.1 Detailed Description

Definition at line 120 of file npfunctions.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npfunctions.h

## 4.52 **\_NPPrint Struct Reference**

### Data Fields

- uint16\_t **mode**
- - union {
  - NPFullPrint **fullPrint**
  - NPEmbedPrint **embedPrint**
  - } **print**

### 4.52.1 Detailed Description

Definition at line 447 of file npapi.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npapi.h



## 4.53 **\_NRect Struct Reference**

### Data Fields

- `uint16_t top`
- `uint16_t left`
- `uint16_t bottom`
- `uint16_t right`

#### 4.53.1 Detailed Description

Definition at line 189 of file `npapi.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/npapi.h`

## 4.54 **\_NPSavedData Struct Reference**

### Data Fields

- `int32_t len`
- `void * buf`

#### 4.54.1 Detailed Description

Definition at line 183 of file `npapi.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/npapi.h`

## 4.55 **\_NPSize Struct Reference**

### Data Fields

- `int32_t width`
- `int32_t height`

#### 4.55.1 Detailed Description

Definition at line 197 of file `npapi.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/npapi.h`

## 4.56 `_NPStream` Struct Reference

### Data Fields

- void \* **pdata**
- void \* **ndata**
- const char \* **url**
- uint32\_t **end**
- uint32\_t **lastmodified**
- void \* **notifyData**
- const char \* **headers**

### 4.56.1 Detailed Description

Definition at line 156 of file npapi.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npapi.h

## 4.57 `_NPString` Struct Reference

### Data Fields

- const NPUTF8 \* **UTF8Characters**
- uint32\_t **UTF8Length**

### 4.57.1 Detailed Description

Definition at line 117 of file npruntime.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npruntime.h

## 4.58 `_NPVariant` Struct Reference

### Data Fields

- NPVariantType **type**
- union {  
    bool **boolValue**  
    int32\_t **intValue**  
    double **doubleValue**  
    NPString **stringValue**  
    NPObject \* **objectValue**  
} **value**

### 4.58.1 Detailed Description

Definition at line 132 of file npruntime.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npruntime.h

## 4.59 \_NPWindow Struct Reference

### Data Fields

- void \* **window**
- int32\_t **x**
- int32\_t **y**
- uint32\_t **width**
- uint32\_t **height**
- **NPRect clipRect**
- NPWindowType **type**

### 4.59.1 Detailed Description

Definition at line 400 of file npapi.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npapi.h

## 4.60 \_s\_list\_t Struct Reference

### Data Fields

- void \* **elem**
- struct \_s\_list\_t \* **next**

### 4.60.1 Detailed Description

Definition at line 37 of file list.h.

The documentation for this struct was generated from the following file:

- src/lib/list.h

## 4.61 freeWRLSAI\_cpp::\_SAIParameter Class Reference

### Data Fields

- void \* **interactor**

### 4.61.1 Detailed Description

Definition at line 48 of file SAIGlobals.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIGlobals.h

## 4.62 \_SFColorNative Struct Reference

### Data Fields

- int **valueChanged**
- struct **SFColor** **v**

### 4.62.1 Detailed Description

Definition at line 83 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.63 \_SFColorRGBANative Struct Reference

### Data Fields

- int **valueChanged**
- struct **SFColorRGBA** **v**

### 4.63.1 Detailed Description

Definition at line 88 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.64 \_SfImageNative Struct Reference

### Data Fields

- int **valueChanged**

#### 4.64.1 Detailed Description

Definition at line 79 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.65 \_SfNodeNative Struct Reference

### Data Fields

- int **valueChanged**
- struct **X3D\_Node** \* **handle**
- char \* **X3DString**
- int **fieldsExpanded**

#### 4.65.1 Detailed Description

Definition at line 52 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.66 \_SfRotationNative Struct Reference

### Data Fields

- int **valueChanged**
- struct **SfRotation** v

#### 4.66.1 Detailed Description

Definition at line 59 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.67 **\_SFVec2fNative Struct Reference**

### Data Fields

- int **valueChanged**
- struct **SFVec2f v**

### 4.67.1 Detailed Description

Definition at line 64 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.68 **\_SFVec3dNative Struct Reference**

### Data Fields

- int **valueChanged**
- struct **SFVec3d v**

### 4.68.1 Detailed Description

Definition at line 74 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.69 **\_SFVec3fNative Struct Reference**

### Data Fields

- int **valueChanged**
- struct **SFColor v**

### 4.69.1 Detailed Description

Definition at line 69 of file jsNative.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/jsNative.h

## 4.70 `_SFVec4dNative` Struct Reference

### Data Fields

- int **valueChanged**
- struct **SFVec4d** **v**

#### 4.70.1 Detailed Description

Definition at line 98 of file `jsNative.h`.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/jsNative.h`

## 4.71 `_SFVec4fNative` Struct Reference

### Data Fields

- int **valueChanged**
- struct **SFVec4f** **v**

#### 4.71.1 Detailed Description

Definition at line 93 of file `jsNative.h`.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/jsNative.h`

## 4.72 `_urlRequest` Struct Reference

### Data Fields

- char **url** [FILENAME\_MAX]
- void \* **instance**
- unsigned int **notifyCode**

#### 4.72.1 Detailed Description

Definition at line 57 of file `pluginUtils.h`.

The documentation for this struct was generated from the following files:

- `src/lib/plugin/pluginUtils.h`
- `src/plugin/plugin_utils.h`

## 4.73 \_X3DNode Union Reference

### Data Fields

- int **type**
- \_intX3D\_MFBool X3D\_MFBool
- \_intX3D\_SFBool X3D\_SFBool
- \_intX3D\_SFFloat X3D\_SFFloat
- \_intX3D\_SFTime X3D\_SFTime
- \_intX3D\_SFInt32 X3D\_SFInt32
- \_intX3D\_MFColor X3D\_MFColor
- \_intX3D\_MFColorRGBA X3D\_MFColorRGBA
- \_intX3D\_SFString X3D\_SFString
- \_intX3D\_SFNode X3D\_SFNode
- \_intX3D\_SFRotation X3D\_SFRotation
- \_intX3D\_SFVec2f X3D\_SFVec2f
- \_intX3D\_SFVec2d X3D\_SFVec2d
- \_intX3D\_SFColor X3D\_SFColor
- \_intX3D\_SFColor X3D\_SFVec3f
- \_intX3D\_SFVec3d X3D\_SFVec3d
- \_intX3D\_SFColorRGBA X3D\_SFColorRGBA
- \_intX3D\_MFFloat X3D\_MFFloat
- \_intX3D\_MFTime X3D\_MFTime
- \_intX3D\_MFInt32 X3D\_MFInt32
- \_intX3D\_MFString X3D\_MFString
- \_intX3D\_MFNode X3D\_MFNode
- \_intX3D\_MFRotation X3D\_MFRotation
- \_intX3D\_MFVec2f X3D\_MFVec2f
- \_intX3D\_MFVec3f X3D\_MFVec3f
- \_intX3D\_MFImage X3D\_MFImage
- \_intX3D\_MFVec3d X3D\_MFVec3d

### 4.73.1 Detailed Description

Definition at line 87 of file X3DNode.h.

The documentation for this union was generated from the following file:

- src/libeai/X3DNode.h

## 4.74 AcknowledgePdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** mySimulationManagementFamilyPdu
- unsigned short **acknowledgeFlag**  
*type of message being acknowledged*
- unsigned short **responseFlag**  
*Whether or not the receiving entity was able to comply with the request.*
- unsigned int **requestID**  
*Request ID that is unique.*



### 4.74.1 Detailed Description

Definition at line 1044 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.75 AcknowledgeReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliability**  
**FamilyPdu**
- unsigned short **acknowledgeFlag**  
*ack flags*
- unsigned short **responseFlag**  
*response flags*
- unsigned int **requestID**  
*Request ID.*

### 4.75.1 Detailed Description

Definition at line 1502 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.76 AcousticBeamData Struct Reference

### Data Fields

- unsigned short **beamDataLength**  
*beam data length*
- unsigned char **beamIDNumber**  
*beamIDNumber*
- unsigned short **pad2**  
*padding*
- struct **AcousticBeamFundamentalParameter** **fundamentalDataParameters**  
*fundamental data parameters*

### 4.76.1 Detailed Description

Definition at line 885 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.77 AcousticBeamFundamentalParameter Struct Reference

### Data Fields

- unsigned short **activeEmissionParameterIndex**  
*parameter index*
- unsigned short **scanPattern**  
*scan pattern*
- float **beamCenterAzimuth**  
*beam center azimuth*
- float **azimuthalBeamwidth**  
*azimuthal beamwidth*
- float **beamCenterDE**  
*beam center*
- float **deBeamwidth**  
*DE beamwidth (vertical beamwidth)*

### 4.77.1 Detailed Description

Definition at line 462 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.78 AcousticEmitter Struct Reference

### Data Fields

- unsigned short **acousticName**  
*the system for a particular UA emitter, and an enumeration*
- unsigned char **function**  
*The function of the acoustic system.*
- unsigned char **acousticIdNumber**  
*The UA emitter identification number relative to a specific system.*

### 4.78.1 Detailed Description

Definition at line 543 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.79 AcousticEmitterSystem Struct Reference

### Data Fields

- unsigned short **acousticName**  
*This field shall specify the system for a particular UA emitter.*
- unsigned char **acousticFunction**  
*This field shall describe the function of the acoustic system.*
- unsigned char **acousticID**  
*This field shall specify the UA emitter identification number relative to a specific system.*

### 4.79.1 Detailed Description

Definition at line 193 of file DIS.h.

### 4.79.2 Field Documentation

#### 4.79.2.1 acousticFunction

```
unsigned char AcousticEmitterSystem::acousticFunction
```

This field shall describe the function of the acoustic system.

Definition at line 197 of file DIS.h.

#### 4.79.2.2 acousticID

```
unsigned char AcousticEmitterSystem::acousticID
```

This field shall specify the UA emitter identification number relative to a specific system.

This field shall be represented by an 8-bit unsigned integer. This field allows the differentiation of multiple systems on an entity, even if in some instances two or more of the systems may be identical UA emitter types. Numbering of systems shall begin with the value 1.

Definition at line 199 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.80 AcousticEmitterSystemData Struct Reference

### Data Fields

- unsigned char **emitterSystemDataLength**  
*Length of emitter system data.*
- unsigned char **numberOfBeams**  
*Number of beams.*
- unsigned short **pad2**  
*padding*
- struct **AcousticEmitterSystem** **acousticEmitterSystem**  
*This field shall specify the system for a particular UA emitter.*
- struct **Vector3Float** **emitterLocation**  
*Represents the location wrt the entity.*
- void \* **beamRecords**  
*For each beam in numberOfBeams, an emitter system.*

#### 4.80.1 Detailed Description

Definition at line 767 of file DIS.h.

#### 4.80.2 Field Documentation

#### 4.80.2.1 beamRecords

```
void* AcousticEmitterSystemData::beamRecords
```

For each beam in numberOfBeams, an emitter system.

This is not right—the beam records need to be at the end of the PDU, rather than attached to each system.

Definition at line 779 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.81 ActionRequestPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** mySimulationManagementFamilyPdu
- unsigned int **requestID**  
*Request ID that is unique.*
- unsigned int **actionID**  
*identifies the action being requested*
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

#### 4.81.1 Detailed Description

Definition at line 1019 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.82 ActionRequestReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliabilityFamilyPdu**
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **requestID**  
*request ID*
- unsigned int **actionID**  
*request ID*
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*

### 4.82.1 Detailed Description

Definition at line 1086 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.83 ActionResponsePdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** **mySimulationManagementFamilyPdu**
- unsigned int **requestID**  
*Request ID that is unique.*
- unsigned int **requestStatus**  
*Status of response.*
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

### 4.83.1 Detailed Description

Definition at line 1819 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.84 ActionResponseReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** mySimulationManagementWithReliability↔  
**FamilyPdu**
- unsigned int **requestID**  
*request ID*
- unsigned int **responseStatus**  
*status of response*
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*

### 4.84.1 Detailed Description

Definition at line 2074 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.85 ActiveRegion Struct Reference

### Data Fields

- GLUhalfEdge \* **eUp**
- DictNode \* **nodeUp**
- int **windingNumber**
- GLboolean **inside**
- GLboolean **sentinel**
- GLboolean **dirty**
- GLboolean **fixUpperEdge**

### 4.85.1 Detailed Description

Definition at line 59 of file sweep.h.

The documentation for this struct was generated from the following file:

- src/libtess/sweep.h

## 4.86 AggregateID Struct Reference

### Data Fields

- unsigned short **site**  
*The site ID.*
- unsigned short **application**  
*The application ID.*
- unsigned short **aggregateID**  
*the aggregate ID*

### 4.86.1 Detailed Description

Definition at line 296 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.87 AggregateMarking Struct Reference

### Data Fields

- unsigned char **characterSet**  
*The character set.*
- char **characters** [31]  
*The characters.*

### 4.87.1 Detailed Description

Definition at line 563 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h



## 4.88 AggregateStatePdu Struct Reference

### Data Fields

- struct **EntityManagementFamilyPdu** **myEntityManagementFamilyPdu**
- struct **EntityID** **aggregateID**  
*ID of aggregated entities.*
- unsigned char **forceID**  
*force ID*
- unsigned char **aggregateState**  
*state of aggregate*
- struct **EntityType** **aggregateType**  
*entity type of the aggregated entities*
- unsigned int **formation**  
*formation of aggregated entities*
- struct **AggregateMarking** **aggregateMarking**  
*marking for aggregate; first char is charset type, rest is char data*
- struct **Vector3Float** **dimensions**  
*dimensions of bounding box for the aggregated entities, origin at the center of mass*
- struct **Orientation** **orientation**  
*orientation of the bounding box*
- struct **Vector3Double** **centerOfMass**  
*center of mass of the aggregation*
- struct **Vector3Float** **velocity**  
*velocity of aggregation*
- unsigned short **numberOfDisAggregates**  
*number of aggregates*
- unsigned short **numberOfDisEntities**  
*number of entities*
- unsigned short **numberOfSilentAggregateTypes**  
*number of silent aggregate types*
- unsigned short **numberOfSilentEntityTypes**  
*number of silent entity types*
- void \* **aggregateIDList**  
*aggregates list*
- void \* **entityIDList**  
*entity ID list*
- unsigned char **pad2**  
*^^^padding to put the start of the next list on a 32 bit boundary.*
- void \* **silentAggregateSystemList**  
*silent entity types*
- void \* **silentEntitySystemList**  
*silent entity types*
- unsigned int **numberOfVariableDatumRecords**  
*number of variable datum records*
- void \* **variableDatumList**  
*variableDatums*

### 4.88.1 Detailed Description

Definition at line 1593 of file DIS.h.

## 4.88.2 Field Documentation

### 4.88.2.1 pad2

```
unsigned char AggregateStatePdu::pad2
```

^^^padding to put the start of the next list on a 32 bit boundary.

This needs to be fixed

Definition at line 1628 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.89 AggregateType Struct Reference

### Data Fields

- unsigned char **aggregateKind**  
*Kind of entity.*
- unsigned char **domain**  
*Domain of entity (air, surface, subsurface, space, etc)*
- unsigned short **country**  
*country to which the design of the entity is attributed*
- unsigned char **category**  
*category of entity*
- unsigned char **subcategory**  
*subcategory of entity*
- unsigned char **specific**  
*specific info based on subcategory field*
- unsigned char **extra**

### 4.89.1 Detailed Description

Definition at line 382 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.90 AngularVelocityVector Struct Reference

### Data Fields

- float **x**  
*velocity about the x axis*
- float **y**  
*velocity about the y axis*
- float **z**  
*velocity about the z axis*

### 4.90.1 Detailed Description

Definition at line 553 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.91 AntennaLocation Struct Reference

### Data Fields

- struct **Vector3Double** **antennaLocation**  
*Location of the radiating portion of the antenna in world coordinates.*
- struct **Vector3Float** **relativeAntennaLocation**  
*Location of the radiating portion of the antenna in entity coordinates.*

### 4.91.1 Detailed Description

Definition at line 807 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.92 anyVrml Union Reference

### Data Fields

- int **nothing**

### 4.92.1 Detailed Description

Definition at line 55 of file CParseGeneral.h.

The documentation for this union was generated from the following files:

- src/lib/vrml\_parser/CParseGeneral.h
- src/lib/world\_script/JScript\_stub.c

## 4.93 ApaData Struct Reference

### Data Fields

- unsigned short **parameterIndex**  
*Index of APA parameter.*
- short **parameterValue**  
*Index of APA parameter.*

### 4.93.1 Detailed Description

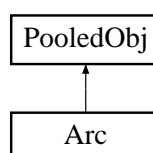
Definition at line 519 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.94 Arc Class Reference

Inheritance diagram for Arc:



## Public Member Functions

- **Arc** ( **Arc** \*, **PwlArc** \*)
- **Arc** (arc\_side, long)
- Arc\_ptr **append** (Arc\_ptr)
- int **check** (void)
- int **isMonotone** (void)
- int **isDisconnected** (void)
- int **numpts** (void)
- void **markverts** (void)
- void **getextrema** (Arc\_ptr[4])
- void **print** (void)
- void **show** (void)
- void **makeSide** ( **PwlArc** \*, arc\_side)
- int **isTessellated** ()
- long **isbezier** ()
- void **setbezier** ()
- void **clearbezier** ()
- long **npts** ()
- **TrimVertex** \* **pts** ()
- REAL \* **tail** ()
- REAL \* **head** ()
- REAL \* **rhead** ()
- long **ismarked** ()
- void **setmark** ()
- void **clearmark** ()
- void **clearside** ()
- void **setside** (arc\_side s)
- arc\_side **getside** ()
- int **getitail** ()
- void **setitail** ()
- void **clearitail** ()

## Data Fields

- Arc\_ptr **prev**
- Arc\_ptr **next**
- Arc\_ptr **link**
- **BezierArc** \* **bezierArc**
- **PwlArc** \* **pwlArc**
- long **type**
- long **nuid**

## Static Public Attributes

- static const int **bezier\_tag** = (1<<13)
- static const int **arc\_tag** = (1<<3)
- static const int **tail\_tag** = (1<<6)

### 4.94.1 Detailed Description

Definition at line 55 of file arc.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/arc.h
- src/libnurbs/internals/arc.cc

## 4.95 ArcSdirSorter Class Reference

Inheritance diagram for ArcSdirSorter:



### Public Member Functions

- ArcSdirSorter ( Subdivider &)

### Additional Inherited Members

### 4.95.1 Detailed Description

Definition at line 58 of file arcsorter.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/arcsorter.h
- src/libnurbs/internals/arcsorter.cc

## 4.96 ArcSorter Class Reference

Inheritance diagram for ArcSorter:



## Public Member Functions

- **ArcSorter** ( **Subdivider** &)
- void **qsort** ( **Arc** \*\*a, int n)

## Protected Member Functions

- virtual int **qscmp** (char \*, char \*)

## Protected Attributes

- **Subdivider** & **subdivider**

### 4.96.1 Detailed Description

Definition at line 45 of file arcsorter.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/arcsorter.h
- src/libnurbs/internals/arcsorter.cc

## 4.97 ArcTdirSorter Class Reference

Inheritance diagram for ArcTdirSorter:



## Public Member Functions

- **ArcTdirSorter** ( **Subdivider** &)

## Additional Inherited Members

### 4.97.1 Detailed Description

Definition at line 66 of file arcsorter.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/arcsorter.h
- src/libnurbs/internals/arcsorter.cc

## 4.98 ArcTessellator Class Reference

### Public Member Functions

- **ArcTessellator** ( **TrimVertexPool** &, **Pool** &)
- void **bezier** (Arc\_ptr, REAL, REAL, REAL, REAL)
- void **pwl** (Arc\_ptr, REAL, REAL, REAL, REAL, REAL)
- void **pwl\_left** (Arc\_ptr, REAL, REAL, REAL, REAL)
- void **pwl\_right** (Arc\_ptr, REAL, REAL, REAL, REAL)
- void **pwl\_top** (Arc\_ptr, REAL, REAL, REAL, REAL)
- void **pwl\_bottom** (Arc\_ptr, REAL, REAL, REAL, REAL)
- void **tessellateLinear** (Arc\_ptr, REAL, REAL, int)
- void **tessellateNonlinear** (Arc\_ptr, REAL, REAL, int)

### 4.98.1 Detailed Description

Definition at line 47 of file arctess.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/arctess.h
- src/libnurbs/internals/arctess.cc

## 4.99 ArealObjectStatePdu Struct Reference

### Data Fields

- struct **SyntheticEnvironmentFamilyPdu** **mySyntheticEnvironmentFamilyPdu**
- struct **EntityID** **objectID**  
*Object in synthetic environment.*
- struct **EntityID** **referencedObjectID**  
*Object with which this point object is associated.*
- unsigned short **updateNumber**  
*unique update number of each state transition of an object*
- unsigned char **forceID**  
*force ID*
- unsigned char **modifications**  
*modifications enumeration*
- struct **EntityType** **objectType**  
*Object type.*
- struct **SixByteChunk** **objectAppearance**  
*Object appearance.*
- unsigned short **numberOfPoints**  
*Number of points.*
- struct **SimulationAddress** **requesterID**  
*requesterID*
- struct **SimulationAddress** **receivingID**  
*receiver ID*
- void \* **objectLocation**  
*location of object*



### 4.99.1 Detailed Description

Definition at line 1543 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.100 ArgListType Struct Reference

### Data Fields

- char **nfixedArg**
- char **iVarArgStartsAt**
- char **fillMissingFixedWithZero**
- char \* **argtypes**

### 4.100.1 Detailed Description

Definition at line 40 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.101 ArticulationParameter Struct Reference

### Data Fields

- unsigned char **parameterTypeDesignator**
- unsigned char **changeIndicator**
- unsigned short **partAttachedTo**
- int **parameterType**
- double **parameterValue**

### 4.101.1 Detailed Description

Definition at line 625 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.102 AtlasEntrySet Struct Reference

### Data Fields

- char \* **name**
- int **type**
- int **EMpixels**
- int **maxadvancepx**
- int **rowheight**
- int **lastascii**
- char \* **atlasName**
- **Atlas** \* **atlas**
- AtlasFont \* **font**
- **AtlasEntry** \* **ascii** [128]
- struct **Vector** \* **entries**

### 4.102.1 Detailed Description

Definition at line 2227 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.103 Backend Class Reference

### Public Member Functions

- **Backend** ( **BasicCurveEvaluator** &c, **BasicSurfaceEvaluator** &e)
- void **bgnsurf** (int, int, long)
- void **patch** (REAL, REAL, REAL, REAL)
- void **surfpnts** (long, REAL \*, long, long, int, int, REAL, REAL, REAL, REAL)
- void **surfbbox** (long, REAL \*, REAL \*)
- void **surfgrid** (REAL, REAL, long, REAL, REAL, long)
- void **surfmesh** (long, long, long, long)
- void **bgntmesh** (const char \*)
- void **endtmesh** (void)
- void **swaptmesh** (void)
- void **tmeshvert** ( **GridTrimVertex** \*)
- void **tmeshvert** ( **TrimVertex** \*)
- void **tmeshvert** ( **GridVertex** \*)
- void **tmeshvert** (REAL u, REAL v)
- void **linevert** ( **TrimVertex** \*)
- void **linevert** ( **GridVertex** \*)
- void **bgnoutline** (void)
- void **endoutline** (void)
- void **endsurf** (void)
- void **triangle** ( **TrimVertex** \*, **TrimVertex** \*, **TrimVertex** \*)
- void **bgntfan** ()
- void **endtfan** ()

- void **bgnqstrip** ()
- void **endqstrip** ()
- void **evalUStrip** (int n\_upper, REAL v\_upper, REAL \*upper\_val, int n\_lower, REAL v\_lower, REAL \*lower\_val)
- void **evalVStrip** (int n\_left, REAL u\_left, REAL \*left\_val, int n\_right, REAL v\_right, REAL \*right\_val)
- void **tmeshvertNOGE** ( TrimVertex \*t)
- void **tmeshvertNOGE\_BU** ( TrimVertex \*t)
- void **tmeshvertNOGE\_BV** ( TrimVertex \*t)
- void **preEvaluateBU** (REAL u)
- void **preEvaluateBV** (REAL v)
- void **bgncurv** (void)
- void **segment** (REAL, REAL)
- void **curvpts** (long, REAL \*, long, int, REAL, REAL)
- void **curvgrid** (REAL, REAL, long)
- void **curvmesh** (long, long)
- void **curvpt** (REAL)
- void **bgnline** (void)
- void **endline** (void)
- void **endcurv** (void)

### 4.103.1 Detailed Description

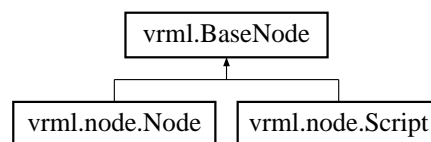
Definition at line 46 of file backend.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/backend.h
- src/libnurbs/internals/backend.cc

## 4.104 vrml.BaseNode Class Reference

Inheritance diagram for vrml.BaseNode:



### Public Member Functions

- **BaseNode** (String id)
- void **\_set\_nodeid** (String id)
- String **\_get\_nodeid** ()
- String **getType** ()
- **Browser** **getBrowser** ()

### 4.104.1 Detailed Description

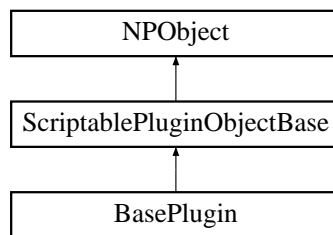
Definition at line 5 of file BaseNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/BaseNode.java

## 4.105 BasePlugin Class Reference

Inheritance diagram for BasePlugin:



### Public Member Functions

- **BasePlugin** ( **NPP** npp)
- virtual bool **HasMethod** (NPIdentifier name)
- virtual bool **HasProperty** (NPIdentifier name)  
*Returns true if the NPIdentifier passed is managed as a scriptable property.*
- virtual bool **GetProperty** (NPIdentifier name, **NPVariant** \*result)  
*Returns true if the scriptable property is managed and fills the NPVariant pointer with the value.*
- virtual bool **Invoke** (NPIdentifier name, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)  
*returns true if the invoked method is managed and executes the appropriate code filling the NPVariant pointer with data if needed*
- virtual bool **InvokeDefault** (const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)  
*Manages the invocation of the default '()' method.*

### Additional Inherited Members

#### 4.105.1 Detailed Description

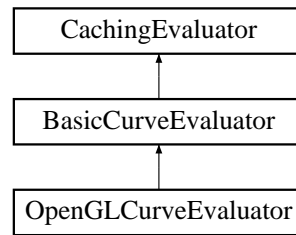
Definition at line 62 of file BasePlugin.h.

The documentation for this class was generated from the following files:

- src/plugin\_win32/BasePlugin.h
- src/plugin\_win32/BasePlugin.cpp

## 4.106 BasicCurveEvaluator Class Reference

Inheritance diagram for BasicCurveEvaluator:



### Public Member Functions

- virtual void **domain1f** (REAL, REAL)
- virtual void **range1f** (long, REAL \*, REAL \*)
- virtual void **enable** (long)
- virtual void **disable** (long)
- virtual void **bgnmap1f** (long)
- virtual void **map1f** (long, REAL, REAL, long, long, REAL \*)
- virtual void **mapgrid1f** (long, REAL, REAL)
- virtual void **mapmesh1f** (long, long, long)
- virtual void **evalcoord1f** (long, REAL)
- virtual void **endmap1f** (void)
- virtual void **bgnline** (void)
- virtual void **endline** (void)

### Additional Inherited Members

#### 4.106.1 Detailed Description

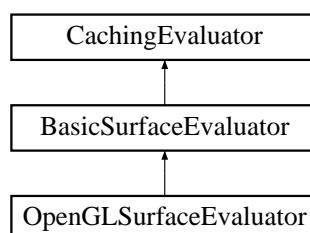
Definition at line 43 of file basiccrveval.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/basiccrveval.h
- src/libnurbs/internals/basiccrveval.cc

## 4.107 BasicSurfaceEvaluator Class Reference

Inheritance diagram for BasicSurfaceEvaluator:



## Public Member Functions

- virtual void **range2f** (long, REAL \*, REAL \*)
- virtual void **domain2f** (REAL, REAL, REAL, REAL)
- virtual void **enable** (long)
- virtual void **disable** (long)
- virtual void **bgnmap2f** (long)
- virtual void **map2f** (long, REAL, REAL, long, long, REAL, REAL, long, long, REAL \*)
- virtual void **mapgrid2f** (long, REAL, REAL, long, REAL, REAL)
- virtual void **mapmesh2f** (long, long, long, long, long)
- virtual void **evalcoord2f** (long, REAL, REAL)
- virtual void **evalpoint2i** (long, long)
- virtual void **endmap2f** (void)
- virtual void **polymode** (long)
- virtual void **bgnline** (void)
- virtual void **endline** (void)
- virtual void **bgnclosedline** (void)
- virtual void **endclosedline** (void)
- virtual void **bgntmesh** (void)
- virtual void **swaptmesh** (void)
- virtual void **endtmesh** (void)
- virtual void **bgnqstrip** (void)
- virtual void **endqstrip** (void)
- virtual void **bgntfan** (void)
- virtual void **endtfan** (void)
- virtual void **evalUStrip** (int n\_upper, REAL v\_upper, REAL \*upper\_val, int n\_lower, REAL v\_lower, REAL \*lower\_val)=0
- virtual void **evalVStrip** (int n\_left, REAL u\_left, REAL \*left\_val, int n\_right, REAL u\_right, REAL \*right\_val)=0
- virtual void **inDoEvalCoord2NOGE** (REAL u, REAL v, REAL \*ret\_point, REAL \*ret\_normal)=0
- virtual void **inDoEvalCoord2NOGE\_BU** (REAL u, REAL v, REAL \*ret\_point, REAL \*ret\_normal)=0
- virtual void **inDoEvalCoord2NOGE\_BV** (REAL u, REAL v, REAL \*ret\_point, REAL \*ret\_normal)=0
- virtual void **inPreEvaluateBV\_intfac** (REAL v)=0
- virtual void **inPreEvaluateBU\_intfac** (REAL u)=0

## Additional Inherited Members

### 4.107.1 Detailed Description

Definition at line 43 of file basicsurfeval.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/basicsurfeval.h
- src/libnurbs/internals/basicsurfeval.cc

## 4.108 BeamAntennaPattern Struct Reference

### Data Fields

- struct **Orientation** **beamDirection**

*The rotation that transformst he reference coordinate sytem into the beam coordinate system.*

- float **azimuthBeamwidth**
- float **referenceSystem**
- short **padding1**
- char **padding2**
- float **ez**

*Magnigute of the z-component in beam coordinates at some arbitrary single point in the mainbeam and in the far field of the antenna.*

- float **ex**

*Magnigute of the x-component in beam coordinates at some arbitrary single point in the mainbeam and in the far field of the antenna.*

- float **phase**

*The phase angle between Ez and Ex in radians.*

### 4.108.1 Detailed Description

Definition at line 746 of file DIS.h.

### 4.108.2 Field Documentation

#### 4.108.2.1 beamDirection

```
struct Orientation BeamAntennaPattern::beamDirection
```

The rotation that transformst he reference coordinate sytem into the beam coordinate system.

Either world coordinates or entity coordinates may be used as the reference coordinate system, as specified by teh reference system field of the antenna pattern record.

Definition at line 748 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.109 BeamData Struct Reference

### Data Fields

- float **beamAzimuthCenter**  
*Specifies the beam azimuth an elevation centers and corresponding half-angles to describe the scan volume.*
- float **beamAzimuthSweep**  
*Specifies the beam azimuth sweep to determine scan volume.*
- float **beamElevationCenter**  
*Specifies the beam elevation center to determine scan volume.*
- float **beamElevationSweep**  
*Specifies the beam elevation sweep to determine scan volume.*
- float **beamSweepSync**  
*allows receiver to synchronize its regenerated scan pattern to that of the emitter.*

### 4.109.1 Detailed Description

Definition at line 399 of file DIS.h.

### 4.109.2 Field Documentation

#### 4.109.2.1 beamSweepSync

```
float BeamData::beamSweepSync
```

allows receiver to synchronize its regenerated scan pattern to that of the emitter.

Specifies the percentage of time a scan is through its pattern from its origion.

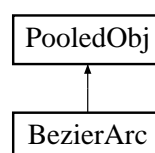
Definition at line 409 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.110 BezierArc Struct Reference

Inheritance diagram for BezierArc:





## Data Fields

- REAL \* **cpts**
- int **order**
- int **stride**
- long **type**
- Mapdesc \* **mapdesc**

## Additional Inherited Members

### 4.110.1 Detailed Description

Definition at line 43 of file bezierarc.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/bezierarc.h

## 4.111 bezierPatch Struct Reference

## Data Fields

- float **umin**
- float **vmin**
- float **umax**
- float **vmax**
- int **uorder**
- int **vorder**
- int **dimension**
- float \* **ctlpoints**
- struct **bezierPatch** \* **next**

### 4.111.1 Detailed Description

Definition at line 36 of file bezierPatch.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/interface/bezierPatch.h

## 4.112 bezierPatchMesh Struct Reference

### Data Fields

- **bezierPatch** \* **bpatch**
- **bezierPatch** \* **bpatch\_normal**
- **bezierPatch** \* **bpatch\_texcoord**
- **bezierPatch** \* **bpatch\_color**
- float \* **UVarray**
- int \* **length\_array**
- GLenum \* **type\_array**
- int **size\_UVarray**
- int **index\_UVarray**
- int **size\_length\_array**
- int **index\_length\_array**
- int **counter**
- GLenum **type**
- float \* **vertex\_array**
- float \* **normal\_array**
- float \* **color\_array**
- float \* **texcoord\_array**
- struct **bezierPatchMesh** \* **next**

### 4.112.1 Detailed Description

Definition at line 38 of file bezierPatchMesh.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/interface/bezierPatchMesh.h

## 4.113 Bin Class Reference

### Public Member Functions

- Arc\_ptr **firstarc** (void)
- Arc\_ptr **nextarc** (void)
- Arc\_ptr **removearc** (void)
- int **isnonempty** (void)
- void **addarc** (Arc\_ptr)
- void **remove\_this\_arc** (Arc\_ptr)
- int **numarcs** (void)
- void **adopt** (void)
- void **markall** (void)
- void **show** (char \*)
- void **listBezier** (void)

### 4.113.1 Detailed Description

Definition at line 43 of file bin.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/bin.h
- src/libnurbs/internals/bin.cc

## 4.114 bindablestack Struct Reference

### Data Fields

- void \* **background**
- void \* **viewpoint**
- void \* **fog**
- void \* **navigation**
- int **layerId**
- double **screenorientationmatrix** [16]
- double **viewtransformmatrix** [16]
- double **viewmatrix** [16]
- double **posorimatrix** [16]
- double **stereooffsetmatrix** [2][16]
- double **backgroundmatrix** [16]
- int **isStereo**
- int **iside**
- int **nodetype**
- void \* **viewer**
- double **pickraymatrix** [2][16]

### 4.114.1 Detailed Description

Definition at line 64 of file Bindable.h.

The documentation for this struct was generated from the following file:

- src/lib/x3d\_parser/Bindable.h

## 4.115 block Struct Reference

### Data Fields

- short int **dct\_recon** [8][8]
- short int **dct\_dc\_y\_past**
- short int **dct\_dc\_cr\_past**
- short int **dct\_dc\_cb\_past**

#### 4.115.1 Detailed Description

Definition at line 182 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

### 4.116 Breakpt Struct Reference

#### Data Fields

- Knot **value**
- int **multi**
- int **def**

#### 4.116.1 Detailed Description

Definition at line 48 of file tobezier.cc.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/tobezier.cc

### 4.117 brotoDefpair Struct Reference

#### Data Fields

- struct **X3D\_Node** \* **node**
- char \* **name**

#### 4.117.1 Detailed Description

Definition at line 236 of file CParseParser.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.h

## 4.118 brotoIS Struct Reference

### Data Fields

- struct **X3D\_Proto** \* **proto**
- char \* **protofieldname**
- int **pmode**
- int **iprotofield**
- int **pBuiltin**
- int **type**
- struct **X3D\_Node** \* **node**
- char \* **nodefieldname**
- int **mode**
- int **ifield**
- int **builtin**
- int **source**

### 4.118.1 Detailed Description

Definition at line 4699 of file CParseParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.c

## 4.119 brotoRoute Struct Reference

### Data Fields

- struct **brouteEnd from**
- struct **brouteEnd to**
- int **lastCommand**
- int **ft**

### 4.119.1 Detailed Description

Definition at line 74 of file CRoutes.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.h

## 4.120 brouteEnd Struct Reference

### Data Fields

- int **weak**
- char \* **cnode**
- char \* **cfield**
- struct **X3D\_Node** \* **node**
- int **ifield**
- int **builtin**
- int **ftype**

### 4.120.1 Detailed Description

Definition at line 62 of file CRoutes.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.h

## 4.121 org.web3d.x3d.sai.Browser Interface Reference

Inheritance diagram for org.web3d.x3d.sai.Browser:



### Public Member Functions

- **X3DScene importDocument** (Node element) throws InvalidBrowserException, InvalidDocumentException, NotSupportedException, ConnectionException
- String **getName** () throws InvalidBrowserException, ConnectionException
- String **getVersion** () throws InvalidBrowserException, ConnectionException
- **ProfileInfo getProfile** (String name) throws InvalidBrowserException, NotSupportedException, ConnectionException
- **ProfileInfo[] getSupportedProfiles** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo[] getSupportedComponents** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo getComponent** (String name, int level) throws InvalidBrowserException, NotSupportedException, ConnectionException
- **X3DExecutionContext getExecutionContext** () throws InvalidBrowserException, ConnectionException
- **X3DScene createScene** ( **ProfileInfo** profile, **ComponentInfo[]** components) throws InvalidBrowserException, ConnectionException
- float **getCurrentSpeed** () throws InvalidBrowserException, ConnectionException
- float **getCurrentFrameRate** () throws InvalidBrowserException, ConnectionException

- void **replaceWorld** ( **X3DScene** scene) throws InvalidBrowserException, ConnectionException
- void **loadURL** (String[] url, Map parameters) throws InvalidBrowserException, InvalidURLException, ConnectionException
- String **getDescription** () throws InvalidBrowserException, ConnectionException
- void **setDescription** (String desc) throws InvalidBrowserException, ConnectionException
- **X3DScene createX3DFromString** (String scene) throws InvalidBrowserException, InvalidX3DException, NotSupportedException, ConnectionException
- **X3DScene createX3DFromStream** (java.io.InputStream is) throws InvalidBrowserException, InvalidX3DException, NotSupportedException, java.io.IOException, ConnectionException
- **X3DScene createX3DFromURL** (String[] url) throws InvalidBrowserException, InvalidX3DException, ConnectionException, java.io.IOException
- java.util.Map **getRenderingProperties** () throws InvalidBrowserException, ConnectionException
- java.util.Map **getBrowserProperties** () throws InvalidBrowserException, ConnectionException
- void **nextViewpoint** () throws InvalidBrowserException, ConnectionException
- void **previousViewpoint** () throws InvalidBrowserException, ConnectionException
- void **firstViewpoint** () throws InvalidBrowserException, ConnectionException
- void **lastViewpoint** () throws InvalidBrowserException, ConnectionException
- void **print** (Object obj) throws InvalidBrowserException, ConnectionException
- void **println** (Object obj) throws InvalidBrowserException, ConnectionException
- void **dispose** ()

#### 4.121.1 Detailed Description

Definition at line 5 of file Browser.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/Browser.java

## 4.122 vrml.Browser Class Reference

### Public Member Functions

- String **toString** ()
- String **getName** ()
- String **getVersion** ()
- float **getCurrentSpeed** ()
- float **getCurrentFrameRate** ()
- **BaseNode[] createX3DFromString** (String x3dSyntax) throws InvalidX3DSyntaxException
- **BaseNode[] createVrmlFromString** (String vrmlSyntax) throws InvalidVRMLSyntaxException

#### 4.122.1 Detailed Description

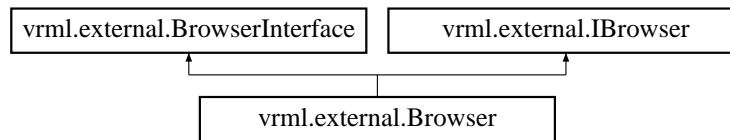
Definition at line 4 of file Browser.java.

The documentation for this class was generated from the following file:

- src/java/vrml/Browser.java

## 4.123 vrml.external.Browser Class Reference

Inheritance diagram for vrml.external.Browser:



### Public Member Functions

- int **get\_Browser\_EVtype** (int event)
- **EventOutObserver** **get\_Browser\_EVObserver** (int eventno)
- void **Browser\_RL\_Async\_send** (String EVentreply, int eventno)
- **Browser** (Applet pApplet, int portnum)
- **Browser** (Applet pApplet)
- **Browser** (Applet pApplet, String frameName, int index)
- String **getName** ()
- String **getVersion** ()
- int **getEncoding** ()
- float **getCurrentSpeed** ()
- float **getCurrentFrameRate** ()
- String **getWorldURL** ()
- String **getRenderingProperties** ()
- void **replaceWorld** ( **Node**[] nodes) throws IllegalArgumentException
- void **loadURL** (String[] url, String[] parameter)
- void **firstViewpoint** ()
- void **lastViewpoint** ()
- void **nextViewpoint** ()
- void **previousViewpoint** ()
- void **setDescription** (String description)
- String **getDescription** ()
- **Node**[] **createX3DFromString** (String vrmlSyntax) throws InvalidVrmlException
- **Node**[] **createVrmlFromString** (String vrmlSyntax) throws InvalidVrmlException
- String **createNode** (String name)
- String **createProto** (String name)
- String **updateNamedNode** (String name, **Node** node)
- String **removeNamedNode** (String name)
- String **getProtoDeclaration** (String name)
- String **updateProtoDeclaration** (String name, String newProtoDecl)
- String **removeProtoDeclaration** (String name)
- String **getNodeFieldDefs** ( **Node** myn)
- String **getNodeDEFName** ( **Node** myn)
- String **getRoutes** ()
- String **getNodeType** ( **Node** myn)
- void **createVrmlFromURL** (String[] url, **Node** node, String event)
- void **addRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws IllegalArgument←
- void **deleteRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws IllegalArgument←
- void **beginUpdate** ()
- void **endUpdate** ()
- void **initialize** ()
- void **shutdown** ()
- **Node** **getNode** (String getName) throws InvalidNodeException
- void **close** ()



## Static Public Member Functions

- static **Browser** **getBrowser** (Applet pApplet)
- static **Browser** **getBrowser** (Applet pApplet, int portnum)
- static **Browser** **getBrowser** (Applet pApplet, String frameName, int index)
- static void **SendChildEvent** (int parent, int offset, String FieldName, int Child)
- static void **newSendEvent** ( **EventIn** node, String Value)
- static String **SendEventOut** (int nodeptr, int offset, int datasize, String datatype, String **command**)
- static void **RegisterListener** ( **EventOutObserver** f, Object userData, int nodeptr, int offset, String datatype, int datasize, int EventType)
- static void **unRegisterListener** ( **EventOutObserver** f, int nodeptr, int offset, String datatype, int datasize, int EventType)

## Static Protected Member Functions

- static String **SendNodeEAType** (int nodeptr)
- static String **SendEventType** (int nodeptr, String FieldName, String direction)
- static synchronized String **getVRMLreply** (int queryno)

### 4.123.1 Detailed Description

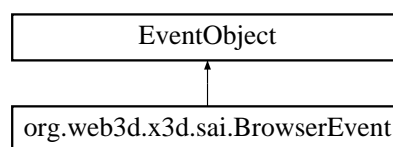
Definition at line 27 of file Browser.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/Browser.java

## 4.124 org.web3d.x3d.sai.BrowserEvent Class Reference

Inheritance diagram for org.web3d.x3d.sai.BrowserEvent:



## Public Member Functions

- **BrowserEvent** (Object b, int a)
- int **getID** ()

## Static Public Attributes

- static final int **INITIALIZED** = 0
- static final int **SHUTDOWN** = 1
- static final int **URL\_ERROR** = 2
- static final int **CONNECTION\_ERROR** = 10
- static final int **LAST\_IDENTIFIER** = 100

### 4.124.1 Detailed Description

Definition at line 5 of file BrowserEvent.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/BrowserEvent.java

## 4.125 sai.BrowserFactory Class Reference

### Static Public Member Functions

- static void **setBrowserFactoryImpl** ( **BrowserFactoryImpl** fac) throws IllegalArgumentException, X3DException, SecurityException
- static **X3DComponent createX3DComponent** (Map params) throws NotSupportedException
- static **ExternalBrowser getBrowser** (Applet applet) throws NotSupportedException, NoSuchBrowserException
- static **ExternalBrowser getBrowser** (Applet applet, String frameName, int index) throws NotSupportedException, NoSuchBrowserException
- static **ExternalBrowser getBrowser** (InetAddress address, int port) throws NotSupportedException, NoSuchBrowserException, UnknownHostException, ConnectionException

### 4.125.1 Detailed Description

Definition at line 8 of file BrowserFactory.java.

The documentation for this class was generated from the following file:

- src/java/sai/BrowserFactory.java

## 4.126 org.web3d.x3d.sai.BrowserFactoryImpl Interface Reference

Inherited by sai.FreeWRLFactory.

### Public Member Functions

- **ExternalBrowser getBrowser** (Applet applet) throws NotSupportedException, NoSuchBrowserException, ConnectionException
- **ExternalBrowser getBrowser** (Applet applet, String frameName, int index) throws NotSupportedException, NoSuchBrowserException, ConnectionException
- **ExternalBrowser getBrowser** (InetAddress add, int port) throws NotSupportedException, NoSuchBrowserException, UnknownHostException, ConnectionException
- **X3DComponent createX3DComponent** (Map args) throws NotSupportedException

### 4.126.1 Detailed Description

Definition at line 8 of file BrowserFactoryImpl.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/BrowserFactoryImpl.java

## 4.127 vrml.external.BrowserGlobals Class Reference

### Static Public Attributes

- static double **TickTime** = 0.0
- static int **EVno** = 0
- static int **EVarray** [] = new int[256]
- static int **EVtype** [] = new int[256]
- static Object **EVObject** [] = new Object[256]
- static **EventOutObserver** **EObserver** [] = new **EventOutObserver**[256]
- static **EAIAsyncThread** **RL\_Async**
- static int **queryno** = 1

### 4.127.1 Detailed Description

Definition at line 4 of file BrowserGlobals.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/BrowserGlobals.java

## 4.128 sai.BrowserGlobals Class Reference

### Static Public Attributes

- static double **TickTime** = 0.0
- static int **EVno** = 0
- static int **EVarray** [] = new int[256]
- static int **EVtype** [] = new int[256]
- static Object **EVObject** [] = new Object[256]
- static **X3DFieldEventListener** **EObserver** [] = new **X3DFieldEventListener**[256]
- static **EAIAsyncThread** **RL\_Async**
- static int **queryno** = 1

### 4.128.1 Detailed Description

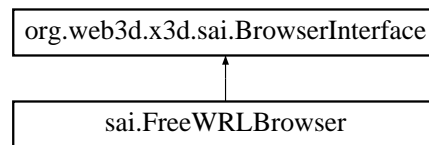
Definition at line 7 of file BrowserGlobals.java.

The documentation for this class was generated from the following file:

- src/java/sai/BrowserGlobals.java

## 4.129 org.web3d.x3d.sai.BrowserInterface Interface Reference

Inheritance diagram for org.web3d.x3d.sai.BrowserInterface:



### Public Member Functions

- `int get_Browser_EVtype` (int event)
- `X3DFieldEventListener get_Browser_EVObserver` (int eventno)
- `void Browser_RL_Async_send` (String EVentreply, int eventno)

### 4.129.1 Detailed Description

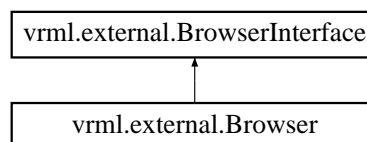
Definition at line 6 of file `BrowserInterface.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/BrowserInterface.java`

## 4.130 vrml.external.BrowserInterface Interface Reference

Inheritance diagram for vrml.external.BrowserInterface:



### Public Member Functions

- `int get_Browser_EVtype` (int event)
- `EventOutObserver get_Browser_EVObserver` (int eventno)
- `void Browser_RL_Async_send` (String EVentreply, int eventno)

### 4.130.1 Detailed Description

Definition at line 8 of file `BrowserInterface.java`.

The documentation for this interface was generated from the following file:

- `src/java/vrml/external/BrowserInterface.java`

## 4.131 org.web3d.x3d.sai.BrowserListener Interface Reference

Inheritance diagram for org.web3d.x3d.sai.BrowserListener:



### Public Member Functions

- void **browserChanged** ( **BrowserEvent** evt)

#### 4.131.1 Detailed Description

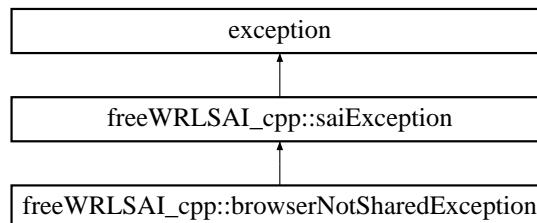
Definition at line 6 of file BrowserListener.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/BrowserListener.java

## 4.132 freeWRLSAI\_cpp::browserNotSharedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::browserNotSharedException:



### Public Member Functions

- virtual const char \* **what** ()

### Additional Inherited Members

#### 4.132.1 Detailed Description

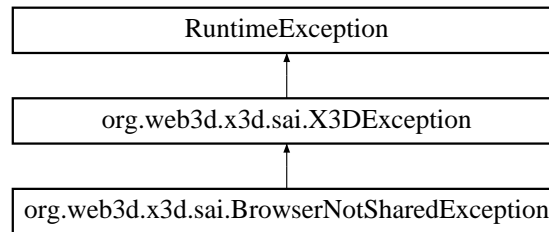
Definition at line 218 of file SAexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAexception.h

## 4.133 org.web3d.x3d.sai.BrowserNotSharedException Class Reference

Inheritance diagram for org.web3d.x3d.sai.BrowserNotSharedException:



### Public Member Functions

- **BrowserNotSharedException** (String msg)

### 4.133.1 Detailed Description

Definition at line 3 of file BrowserNotSharedException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/BrowserNotSharedException.java

## 4.134 Buffer Class Reference

### Friends

- class **Pool**

### 4.134.1 Detailed Description

Definition at line 45 of file bufpool.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/bufpool.h

## 4.135 BurstDescriptor Struct Reference

### Data Fields

- struct **EntityType** **munition**  
*What munition was used in the burst.*
- unsigned short **warhead**  
*type of warhead*
- unsigned short **fuse**  
*type of fuse used*
- unsigned short **quantity**  
*how many of the munition were fired*
- unsigned short **rate**  
*rate at which the munition was fired*

### 4.135.1 Detailed Description

Definition at line 832 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.136 CachedVertex Struct Reference

### Data Fields

- GLdouble **coords** [3]
- void \* **data**

### 4.136.1 Detailed Description

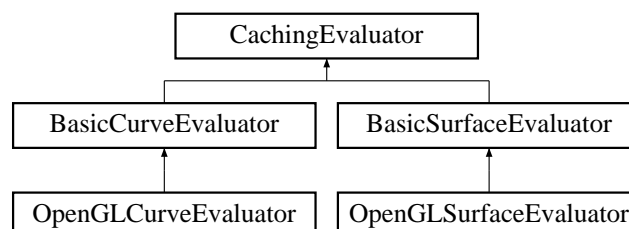
Definition at line 54 of file tess.h.

The documentation for this struct was generated from the following file:

- src/libtess/tess.h

## 4.137 CachingEvaluator Class Reference

Inheritance diagram for CachingEvaluator:



## Public Types

- enum **ServiceMode** { **play**, **record**, **playAndRecord** }

## Public Member Functions

- virtual int **canRecord** (void)
- virtual int **canPlayAndRecord** (void)
- virtual int **createHandle** (int handle)
- virtual void **beginOutput** (ServiceMode, int handle)
- virtual void **endOutput** (void)
- virtual void **discardRecording** (int handle)
- virtual void **playRecording** (int handle)

### 4.137.1 Detailed Description

Definition at line 39 of file cachingeval.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/cachingeval.h
- src/libnurbs/internals/cachingeval.cc

## 4.138 cbDataExactName Struct Reference

### Data Fields

- char \* **fname**
- union **anyVrml** \* **fieldValue**
- int **mode**
- int **type**
- int **jfield**
- int **source**
- BOOL **publicfield**

### 4.138.1 Detailed Description

Definition at line 5828 of file CParseParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.c



## 4.139 cbDataRootNameAndRouteDir Struct Reference

### Data Fields

- char \* **fname**
- int **PKW\_eventType**
- union **anyVrml** \* **fieldValue**
- int **mode**
- int **type**
- int **jfield**
- int **builtin**
- int **source**
- BOOL **publicfield**

### 4.139.1 Detailed Description

Definition at line 5870 of file CParseParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.c

## 4.140 CdlIFreeWRL Class Reference

### Public Types

- enum **KeyAction** { **KEYDOWN** =2, **KEYUP** =3, **KEYPRESS** =1 }
- enum **MouseButton** { **MOUSEMOVE** =6, **MOUSEDOWN** =4, **MOUSEUP** =5 }
- enum **MouseButton** { **LEFT** =1, **MIDDLE** =2, **RIGHT** =3, **NONE** =0 }
- enum **resource\_status** {  
**ress\_none**, **ress\_starts\_good**, **ress\_invalid**, **ress\_downloaded**,  
**ress\_failed**, **ress\_loaded**, **ress\_not\_loaded**, **ress\_parsed**,  
**ress\_not\_parsed** }
- enum **resource\_media\_type** {  
**resm\_unknown**, **resm\_vrml**, **resm\_x3d**, **resm\_image**,  
**resm\_movie**, **resm\_script**, **resm\_pshader**, **resm\_fshader**,  
**resm\_audio**, **resm\_x3z**, **resm\_external** }

### Public Member Functions

- **CdlIFreeWRL** (int width, int height, void \*windowhandle=0, bool bEai=false)
- **CdlIFreeWRL** (char \*scene\_url, int width, int height, void \*windowhandle=0, bool bEai=false)
- void **setDensityFactor** (float density\_factor)
- void **onInit** (int width, int height, void \*windowhandle=0, bool bEai=false, bool frontend\_handles\_display\_thread=false)
- void **onInitArgv** (int argc, char \*\*argv, bool frontend\_handles\_display\_thread)
- void **onLoad** (char \*scene\_url)
- void **onResize** (int width, int height)
- int **onMouse** (int mouseAction, int mouseButton, int x, int y)

- int **onTouch** (int touchAction, unsigned int ID, int x, int y)
- void **onGyro** (float rx, float ry, float rz)
- void **onAccelerometer** (float ax, float ay, float az)
- void **onMagnetic** (float azimuth, float pitch, float roll)
- void **onKey** (int keyAction, int keyValue)
- void **onDraw** ()
- void **onClose** ()
- void **print** (char \*str)
- void **setTempFolder** (char \*tmpFolder)
- void **setFontFolder** (char \*fontFolder)
- int **getUpdatedCursorStyle** ()
- void \* **frontenditem\_dequeue** ()
- char \* **resitem\_getURL** (void \*res)
- int **resitem\_getStatus** (void \*res)
- void **resitem\_setStatus** (void \*res, int status)
- int **resitem\_getType** (void \*res)
- int **resitem\_getMediaType** (void \*res)
- void **resitem\_enqueueNextMulti** (void \*res)
- void **resitem\_setLocalPath** (void \*res, char \*path)
- void **resitem\_enqueue** (void \*res)
- void **resitem\_load** (void \*res)
- void **commandline** (char \*cmdline)

#### 4.140.1 Detailed Description

Definition at line 18 of file dllFreeWRL.h.

The documentation for this class was generated from the following files:

- src/dllFreeWRL/dllFreeWRL.h
- src/dllFreeWRL/dllFreeWRL.cpp

### 4.141 chardata Struct Reference

#### Data Fields

- unsigned int **iglyph**
- double **advance**
- double **x**
- double **y**
- double **sx**
- double **sy**

#### 4.141.1 Detailed Description

Definition at line 203 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.142 chaser\_ptr Struct Reference

### Data Fields

- void \* **value\_changed**
- void \* **initialDestination**
- void \* **initialValue**
- void \* **set\_destination**
- void \* **set\_value**
- void \* **\_buffer**
- void \* **\_previousValue**
- void \* **\_destination**

### 4.142.1 Detailed Description

Definition at line 164 of file Component\_Followers.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Followers.c

## 4.143 cline Struct Reference

### Data Fields

- int **n**
- GLfloat **p** [6]

### 4.143.1 Detailed Description

Definition at line 235 of file CursorDraw.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/CursorDraw.c

## 4.144 ClockTime Struct Reference

### Data Fields

- int **hour**  
*Hours in UTC.*
- unsigned int **timePastHour**  
*Time past the hour.*

#### 4.144.1 Detailed Description

Definition at line 312 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

### 4.145 coded\_block\_pattern\_entry Struct Reference

#### Data Fields

- unsigned int **cbp**
- int **num\_bits**

#### 4.145.1 Detailed Description

Definition at line 768 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

### 4.146 CollisionElasticPdu Struct Reference

#### Data Fields

- struct **EntityInformationFamilyPdu** **myEntityInformationFamilyPdu**
- struct **EntityID** **issuingEntityID**  
*ID of the entity that issued the collision PDU.*
- struct **EntityID** **collidingEntityID**  
*ID of entity that has collided with the issuing entity ID.*
- struct **EventID** **collisionEventID**  
*ID of event.*
- short **pad**  
*some padding*
- struct **Vector3Float** **contactVelocity**  
*velocity at collision*
- float **mass**  
*mass of issuing entity*
- struct **Vector3Float** **location**  
*Location with respect to entity the issuing entity collided with.*
- float **collisionResultXX**  
*tensor values*
- float **collisionResultXY**  
*tensor values*

- float **collisionResultXZ**  
*tensor values*
- float **collisionResultYY**  
*tensor values*
- float **collisionResultYZ**  
*tensor values*
- float **collisionResultZZ**  
*tensor values*
- struct **Vector3Float unitSurfaceNormal**  
*This record shall represent the normal vector to the surface at the point of collision detection.*
- float **coefficientOfRestitution**  
*This field shall represent the degree to which energy is conserved in a collision.*

### 4.146.1 Detailed Description

Definition at line 2039 of file DIS.h.

### 4.146.2 Field Documentation

#### 4.146.2.1 unitSurfaceNormal

```
struct Vector3Float CollisionElasticPdu::unitSurfaceNormal
```

This record shall represent the normal vector to the surface at the point of collision detection.

The surface normal shall be represented in world coordinates.

Definition at line 2068 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.147 CollisionPdu Struct Reference

### Data Fields

- struct **EntityInformationFamilyPdu myEntityInformationFamilyPdu**
- struct **EntityID issuingEntityID**  
*ID of the entity that issued the collision PDU.*
- struct **EntityID collidingEntityID**  
*ID of entity that has collided with the issuing entity ID.*
- struct **EventID eventID**  
*ID of event.*
- unsigned char **collisionType**  
*ID of event.*
- char **pad**  
*some padding*
- struct **Vector3Float velocity**  
*velocity at collision*
- float **mass**  
*mass of issuing entity*
- struct **Vector3Float location**  
*Location with respect to entity the issuing entity collided with.*

#### 4.147.1 Detailed Description

Definition at line 1798 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

### 4.148 colorScheme Struct Reference

#### Data Fields

- char \* **name**
- char \* **panel**
- char \* **menulcon**
- char \* **statusText**
- char \* **messageText**

#### 4.148.1 Detailed Description

Definition at line 407 of file common.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/common.c

### 4.149 command Struct Reference

#### Data Fields

- char \* **key**
- int(\* **cmdfunc** )()
- int(\* **valfunc** )(char \*val)
- char \* **helpstring**

#### 4.149.1 Detailed Description

Definition at line 764 of file common.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/common.c

## 4.150 CommentPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** **mySimulationManagementFamilyPdu**
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

### 4.150.1 Detailed Description

Definition at line 1710 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.151 CommentReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliability**[!\[\]\(029651ce9ee64da8525b17c64e266edc\_img.jpg\)](#)  
**FamilyPdu**
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*

### 4.151.1 Detailed Description

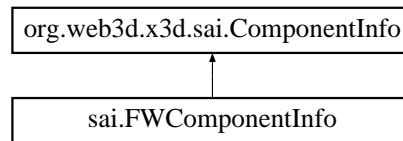
Definition at line 1723 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.152 org.web3d.x3d.sai.ComponentInfo Interface Reference

Inheritance diagram for org.web3d.x3d.sai.ComponentInfo:



### Public Member Functions

- String **getName** ()
- int **getLevel** ()
- String **getTitle** ()
- String **getProviderURL** ()
- String **toX3DString** ()

#### 4.152.1 Detailed Description

Definition at line 3 of file ComponentInfo.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/ComponentInfo.java

## 4.153 connection\_info\_struct Struct Reference

### Data Fields

- int **connectiontype**
- char \* **answerstring**
- int **len**
- struct MHD\_PostProcessor \* **postprocessor**

#### 4.153.1 Detailed Description

Definition at line 811 of file SSRServer.c.

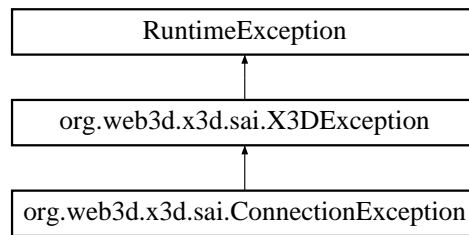
The documentation for this struct was generated from the following file:

- src/SSR/SSRServer.c



## 4.154 org.web3d.x3d.sai.ConnectionException Class Reference

Inheritance diagram for org.web3d.x3d.sai.ConnectionException:



### Public Member Functions

- **ConnectionException** (String msg)

#### 4.154.1 Detailed Description

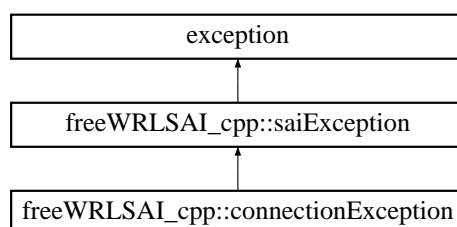
Definition at line 3 of file ConnectionException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/ConnectionException.java

## 4.155 freeWRLSAI\_cpp::connectionException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::connectionException:



### Public Member Functions

- virtual const char \* **what** ()

### Additional Inherited Members

#### 4.155.1 Detailed Description

Definition at line 85 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.156 consoleLine Struct Reference

### Data Fields

- char \* **line**
- int **len**
- int **endline**

### 4.156.1 Detailed Description

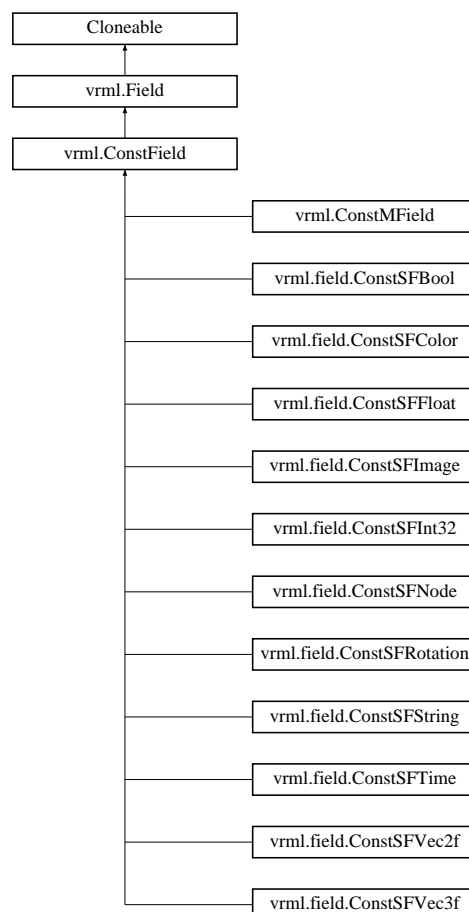
Definition at line 808 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.157 vrml.ConstField Class Reference

Inheritance diagram for vrml.ConstField:



## Additional Inherited Members

### 4.157.1 Detailed Description

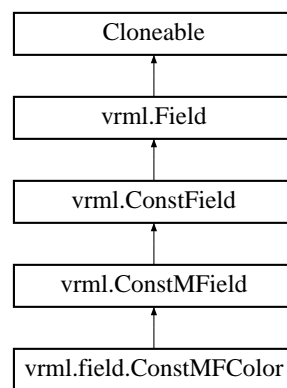
Definition at line 3 of file ConstField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/ConstField.java

## 4.158 vrml.field.ConstMFCOLOR Class Reference

Inheritance diagram for vrml.field.ConstMFCOLOR:



## Public Member Functions

- **ConstMFCOLOR** (float[] colors)
- **ConstMFCOLOR** (int size, float[] colors)
- **ConstMFCOLOR** (float[][] colors)
- void **getValue** (float[] colors)
- void **getValue** (float[][] colors)
- void **get1Value** (int index, float[] colors)
- void **get1Value** (int index, **SFCOLOR** sfColor)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.158.1 Detailed Description

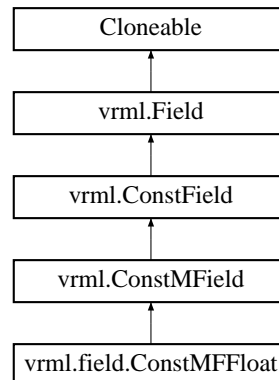
Definition at line 10 of file ConstMFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFCOLOR.java

## 4.159 vrml.field.ConstMFFloat Class Reference

Inheritance diagram for vrml.field.ConstMFFloat:



### Public Member Functions

- **ConstMFFloat** (float[] f)
- **ConstMFFloat** (int size, float[] f)
- void **getValue** (float[] f)
- float **get1Value** (int index)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.159.1 Detailed Description

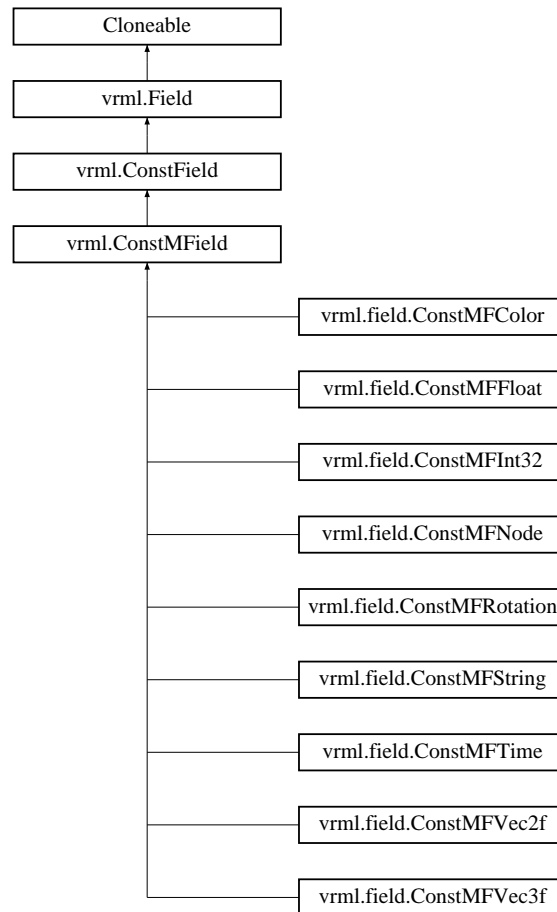
Definition at line 10 of file ConstMFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFFloat.java

## 4.160 vrml.ConstMField Class Reference

Inheritance diagram for vrml.ConstMField:



## Public Member Functions

- int **getSize** ()

## Data Fields

- **Vector** **\_\_vect** = new **Vector**()

## Protected Member Functions

- final void **\_\_update1Read** (int index)

### 4.160.1 Detailed Description

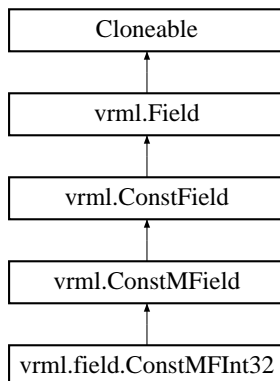
Definition at line 4 of file ConstMField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/ConstMField.java

## 4.161 vrml.field.ConstMField32 Class Reference

Inheritance diagram for vrml.field.ConstMField32:



### Public Member Functions

- **ConstMField32** (int[] value)
- **ConstMField32** (int size, int[] value)
- void **getValue** (int[] value)
- int **get1Value** (int index)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.161.1 Detailed Description

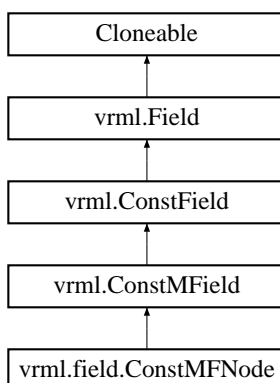
Definition at line 10 of file ConstMField32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMField32.java

## 4.162 vrml.field.ConstMFNode Class Reference

Inheritance diagram for vrml.field.ConstMFNode:



## Public Member Functions

- **ConstMFNode** ( **BaseNode**[] node)
- **ConstMFNode** (int size, **BaseNode**[] node)
- void **getValue** ( **BaseNode**[] node)
- **BaseNode** **get1Value** (int index)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.162.1 Detailed Description

Definition at line 10 of file ConstMFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFNode.java

## 4.163 vrml.field.ConstMFRotation Class Reference

Inheritance diagram for vrml.field.ConstMFRotation:



## Public Member Functions

- **ConstMFRotation** (float[] rotations)
- **ConstMFRotation** (int size, float[] rotations)
- **ConstMFRotation** (float[][] rotations)
- void **getValue** (float[] rotations)
- void **getValue** (float[][] rotations)
- void **get1Value** (int index, float[] rotations)
- void **get1Value** (int index, **SFRotation** sfRotation)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.163.1 Detailed Description

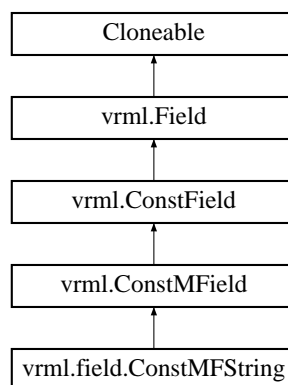
Definition at line 10 of file ConstMFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFRotation.java

## 4.164 vrml.field.ConstMFString Class Reference

Inheritance diagram for vrml.field.ConstMFString:



## Public Member Functions

- **ConstMFString** (String[] s)
- **ConstMFString** (int size, String[] s)
- void **getValue** (String[] s)
- String **get1Value** (int index)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.164.1 Detailed Description

Definition at line 10 of file ConstMFString.java.

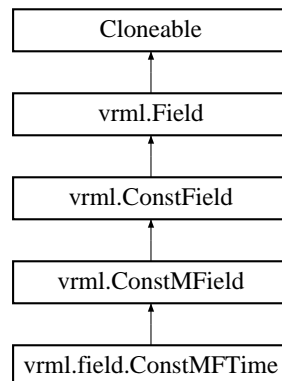
The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFString.java



## 4.165 vrml.field.ConstMFTIME Class Reference

Inheritance diagram for vrml.field.ConstMFTIME:



### Public Member Functions

- **ConstMFTIME** (double[] value)
- **ConstMFTIME** (int size, double[] value)
- void **getValue** (double[] value)
- double **get1Value** (int index)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.165.1 Detailed Description

Definition at line 10 of file ConstMFTIME.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFTIME.java

## 4.166 vrml.field.ConstMFVec2f Class Reference

Inheritance diagram for vrml.field.ConstMFVec2f:



## Public Member Functions

- **ConstMFVec2f** (float[] vec2fs)
- **ConstMFVec2f** (int size, float[] vec2fs)
- **ConstMFVec2f** (float[][] vec2fs)
- void **getValue** (float[] vec2fs)
- void **getValue** (float[][] vec2fs)
- void **get1Value** (int index, float[] vec2fs)
- void **get1Value** (int index, **SFVec2f** sfVec2f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.166.1 Detailed Description

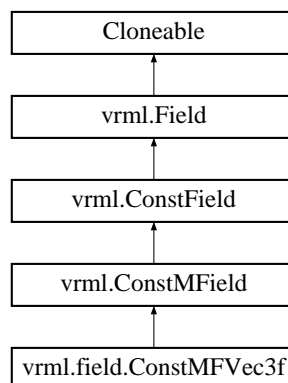
Definition at line 10 of file ConstMFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFVec2f.java

## 4.167 vrml.field.ConstMFVec3f Class Reference

Inheritance diagram for vrml.field.ConstMFVec3f:



## Public Member Functions

- **ConstMFVec3f** (float[] vec3fs)
- **ConstMFVec3f** (int size, float[] vec3fs)
- **ConstMFVec3f** (float[][] vec3fs)
- void **getValue** (float[] vec3fs)
- void **getValue** (float[][] vec3fs)
- void **get1Value** (int index, float[] vec3fs)
- void **get1Value** (int index, **SFVec3f** sfVec3f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.167.1 Detailed Description

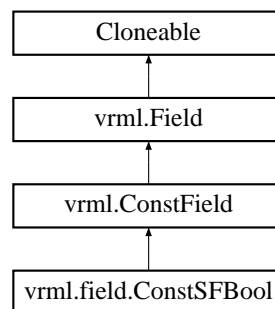
Definition at line 10 of file ConstMFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstMFVec3f.java

## 4.168 vrml.field.ConstSFBBool Class Reference

Inheritance diagram for vrml.field.ConstSFBBool:



## Public Member Functions

- **ConstSFBBool** (boolean value)
- boolean **getValue** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.168.1 Detailed Description

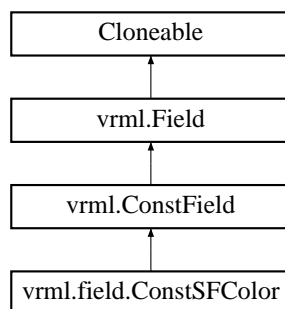
Definition at line 10 of file ConstSFBBool.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFBBool.java

## 4.169 vrml.field.ConstSFCOLOR Class Reference

Inheritance diagram for vrml.field.ConstSFCOLOR:



### Public Member Functions

- **ConstSFCOLOR** (float red, float green, float blue)
- void **getValue** (float[] values)
- float **getRed** ()
- float **getGreen** ()
- float **getBlue** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.169.1 Detailed Description

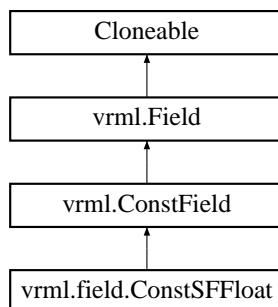
Definition at line 10 of file ConstSFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFCOLOR.java

## 4.170 vrml.field.ConstSFFloat Class Reference

Inheritance diagram for vrml.field.ConstSFFloat:



## Public Member Functions

- **ConstSFFloat** (float f)
- float **getValue** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.170.1 Detailed Description

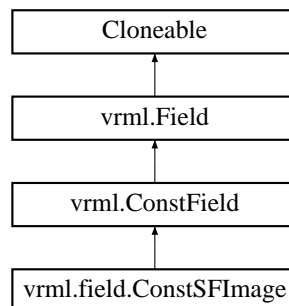
Definition at line 10 of file ConstSFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFFloat.java

## 4.171 vrml.field.ConstSfImage Class Reference

Inheritance diagram for vrml.field.ConstSfImage:



## Public Member Functions

- **ConstSfImage** (int width, int height, int components, byte[] pixels)
- int **getWidth** ()
- int **getHeight** ()
- int **getComponents** ()
- byte[] **getPixels** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.171.1 Detailed Description

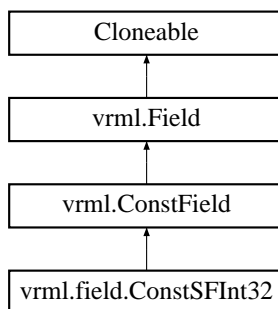
Definition at line 10 of file ConstSFImage.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFImage.java

## 4.172 vrml.field.ConstSFInt32 Class Reference

Inheritance diagram for vrml.field.ConstSFInt32:



## Public Member Functions

- **ConstSFInt32** (int value)
- int **getValue** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.172.1 Detailed Description

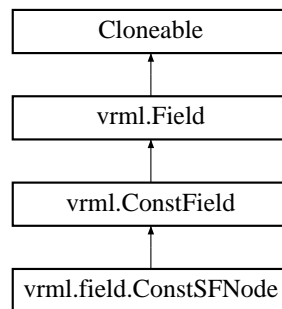
Definition at line 10 of file ConstSFInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFInt32.java

## 4.173 vrml.field.ConstSFNode Class Reference

Inheritance diagram for vrml.field.ConstSFNode:



### Public Member Functions

- **ConstSFNode** ( **BaseNode** node)
- **BaseNode** **getValue** ()
- **String** **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.173.1 Detailed Description

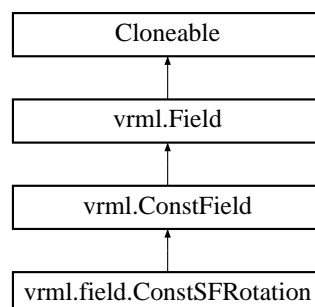
Definition at line 10 of file ConstSFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFNode.java

## 4.174 vrml.field.ConstSFRotation Class Reference

Inheritance diagram for vrml.field.ConstSFRotation:



## Public Member Functions

- **ConstSFRotation** (float axisX, float axisY, float axisZ, float angle)
- void **getValue** (float[] values)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.174.1 Detailed Description

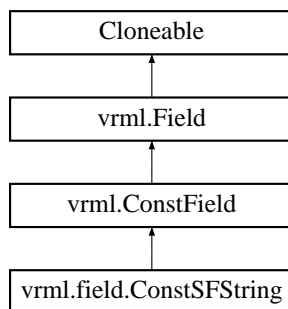
Definition at line 10 of file ConstSFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFRotation.java

## 4.175 vrml.field.ConstSFString Class Reference

Inheritance diagram for vrml.field.ConstSFString:



## Public Member Functions

- **ConstSFString** (String s)
- String **getValue** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.175.1 Detailed Description

Definition at line 10 of file ConstSFString.java.

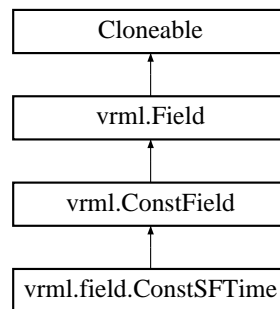
The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFString.java



## 4.176 vrml.field.ConstSFTTime Class Reference

Inheritance diagram for vrml.field.ConstSFTTime:



### Public Member Functions

- **ConstSFTTime** (double value)
- double **getValue** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.176.1 Detailed Description

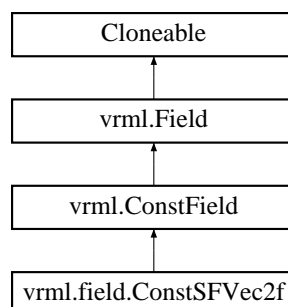
Definition at line 10 of file ConstSFTTime.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFTTime.java

## 4.177 vrml.field.ConstSFVec2f Class Reference

Inheritance diagram for vrml.field.ConstSFVec2f:



## Public Member Functions

- **ConstSFVec2f** (float x, float y)
- void **getValue** (float[] values)
- float **getX** ()
- float **getY** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.177.1 Detailed Description

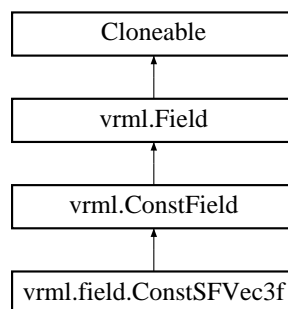
Definition at line 10 of file ConstSFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFVec2f.java

## 4.178 vrml.field.ConstSFVec3f Class Reference

Inheritance diagram for vrml.field.ConstSFVec3f:



## Public Member Functions

- **ConstSFVec3f** (float x, float y, float z)
- void **getValue** (float[] values)
- float **getX** ()
- float **getY** ()
- float **getZ** ()
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.178.1 Detailed Description

Definition at line 10 of file ConstSFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/ConstSFVec3f.java

## 4.179 contenttype\_captiontext Struct Reference

### Data Fields

- **tcontenttype t1**
- char \* **caption**
- int **len**
- int \* **utf32**
- int **len32**
- int **nalloc**
- AtlasFont \* **font**
- char \* **fontname**
- int **fontSize**
- **AtlasEntrySet** \* **set**
- float **percentSize**
- int **EMpixels**
- int **maxadvancepx**
- float **angle**
- **vec4** **color**

### 4.179.1 Detailed Description

Definition at line 731 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.180 contenttype\_e3dmouse Struct Reference

### Data Fields

- **tcontenttype t1**
- int **sphericalmode**
- int **navigationMode**
- int **dragMode**
- int **waste**

#### 4.180.1 Detailed Description

Definition at line 1411 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

### 4.181 contenttype\_layer Struct Reference

#### Data Fields

- **tcontenttype t1**

#### 4.181.1 Detailed Description

Definition at line 1276 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

### 4.182 contenttype\_multitouch Struct Reference

#### Data Fields

- **tcontenttype t1**
- struct **Touch touchlist** [20]
- int **ntouch**
- int **IDD**
- int **lastbut**

#### 4.182.1 Detailed Description

Definition at line 1336 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.183 contenttype\_orientation Struct Reference

### Data Fields

- **tcontenttype t1**
- int **nx**
- int **ny**
- int **nelements**
- int **nvert**
- GLushort \* **index**
- GLfloat \* **vert**
- GLfloat \* **vert2**
- GLfloat \* **tex**
- GLfloat \* **norm**
- GLfloat **dx**
- GLfloat **tx**
- GLuint **textureID**

### 4.183.1 Detailed Description

Definition at line 2706 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.184 contenttype\_quadrant Struct Reference

### Data Fields

- **tcontenttype t1**
- float **offset\_fraction** [2]

### 4.184.1 Detailed Description

Definition at line 1519 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.185 contenttype\_scene Struct Reference

### Data Fields

- **tcontenttype t1**

### 4.185.1 Detailed Description

Definition at line 504 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.186 contenttype\_splitter Struct Reference

### Data Fields

- **tcontenttype t1**
- float **offset\_fraction**
- int **offset\_pixels**
- int **orientation**

### 4.186.1 Detailed Description

Definition at line 2112 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.187 contenttype\_statusbar Struct Reference

### Data Fields

- **tcontenttype t1**
- int **clipplane**

### 4.187.1 Detailed Description

Definition at line 549 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.188 contenttype\_stereo\_anaglyph Struct Reference

### Data Fields

- **tcontenttype t1**

### 4.188.1 Detailed Description

Definition at line 1801 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.189 contenttype\_stereo\_shutter Struct Reference

### Data Fields

- tcontenttype t1

### 4.189.1 Detailed Description

Definition at line 2002 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.190 contenttype\_stereo\_sidebyside Struct Reference

### Data Fields

- tcontenttype t1

### 4.190.1 Detailed Description

Definition at line 1649 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.191 contenttype\_stereo\_updown Struct Reference

### Data Fields

- tcontenttype t1

### 4.191.1 Detailed Description

Definition at line 1894 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.192 contenttype\_switch Struct Reference

### Data Fields

- **tcontenttype t1**
- int **whichCase**
- int \* **whichPtr**

### 4.192.1 Detailed Description

Definition at line 647 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.193 contenttype\_textpanel Struct Reference

### Data Fields

- **tcontenttype t1**
- **AtlasEntrySet \* set**
- **AtlasFont \* font**
- char \* **fontname**
- int **fontSize**
- int **maxadvancepx**
- **vec4 color**
- int **maxlines**
- int **maxlen**
- int **wrap**
- unsigned char \* **Ablob**
- int **blobsize**
- unsigned char \* **S**
- unsigned char \* **E**
- unsigned char \* **Z**
- unsigned char \* **z**
- **BUTitem \* Blist**
- **BUTitem \* bhead**
- int **added**
- int **rowSize**
- unsigned char \* **row**
- int **initialized**



### 4.193.1 Detailed Description

Definition at line 821 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.194 contenttype\_texturegrid Struct Reference

### Data Fields

- **tcontenttype t1**
- int **nx**
- int **ny**
- int **nelements**
- int **nvert**
- GLushort \* **index**
- GLfloat \* **vert**
- GLfloat \* **vert2**
- GLfloat \* **tex**
- GLfloat \* **norm**
- GLfloat **dx**
- GLfloat **tx**
- float **k1**
- float **xc**
- int **usingDistortions**
- GLuint **textureID**

### 4.194.1 Detailed Description

Definition at line 2333 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.195 CoveAndTiler Class Reference

Inheritance diagram for CoveAndTiler:



## Public Member Functions

- **CoveAndTiler** ( **Backend** &)
- void **coveAndTile** (void)

## Additional Inherited Members

### 4.195.1 Detailed Description

Definition at line 46 of file coveandtiler.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/coveandtiler.h
- src/libnurbs/internals/coveandtiler.cc

## 4.196 CPlugin Class Reference

### Public Member Functions

- **CPlugin** ( **NPP** pNPInstance)  
*CPlugin* (p. 158) *class.constructor.*
- NPBool **init** ( **NPWindow** \*pNPWindow)
- void **shut** ()
- NPBool **isInitialized** ()
- int16\_t **handleEvent** (void \*event)
- void **showVersion** ()
- void **clear** ()
- void **getVersion** (char \*\*aVersion)
- void **setSceneUrl** (char \*sceneUrl)
- void **setEAIFlag** ()
- **NObject** \* **GetScriptableObject** ()

### Data Fields

- char **m\_String** [128]
- UINT\_PTR **m\_pTimerID**

### 4.196.1 Detailed Description

Definition at line 46 of file plugin.h.

### 4.196.2 Constructor & Destructor Documentation

#### 4.196.2.1 CPlugin()

```
CPlugin::CPlugin (
    NPP pNPInstance )
```

**CPlugin** (p. 158) class.constructor.

Base initialization goes here.

Definition at line 73 of file plugin.cpp.

The documentation for this class was generated from the following files:

- src/plugin\_win32/plugin.h
- src/plugin\_win32/plugin.cpp

## 4.197 CR\_RegStruct Struct Reference

### Data Fields

- int **adrem**
- struct **X3D\_Node** \* **from**
- int **fromoffset**
- struct **X3D\_Node** \* **to**
- int **toOfs**
- int **fieldType**
- void \* **intptr**
- int **sccdir**
- void \* **extra**

#### 4.197.1 Detailed Description

Definition at line 177 of file CRoutes.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.c

## 4.198 CreateEntityPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** **mySimulationManagementFamilyPdu**
- unsigned int **requestID**  
*Identifier for the request.*

### 4.198.1 Detailed Description

Definition at line 869 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.199 CreateEntityReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** mySimulationManagementWithReliability↔  
**FamilyPdu**
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **requestID**  
*Request ID.*

### 4.199.1 Detailed Description

Definition at line 1977 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.200 CRjsnameStruct Struct Reference

### Data Fields

- int **type**
- int **kind**
- char **name** [MAXJSVARIABLELENGTH]
- void \* **eventInFunction**

### 4.200.1 Detailed Description

Definition at line 186 of file CScripts.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.h

## 4.201 CRscriptStruct Struct Reference

### Data Fields

- int **thisScriptType**
- int **\_initialized**
- void \* **cx**
- void \* **glob**
- void \* **eventsProcessed**
- char \* **scriptText**
- struct **ScriptParamList** \* **paramList**
- int **scriptOK**
- struct **Shader\_Script** \* **script**
- int **scr\_act**

### 4.201.1 Detailed Description

Definition at line 154 of file CScripts.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.h

## 4.202 CRStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **routeFromNode**
- int **fnptr**
- int **tonode\_count**
- **CRnodeStruct** \* **tonodes**
- int **isActive**
- int **len**
- void(\* **interpPtr**)(void \*)
- int **direction\_flag**
- void \* **extra**
- int **intTimeStamp**

### 4.202.1 Detailed Description

Definition at line 44 of file CRoutes.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.h

## 4.203 cson\_array Struct Reference

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- **cson\_value\_list** list

### 4.203.1 Detailed Description

**cson\_array** (p. 162) is an opaque handle to an Array value.

They are used like:

```
cson_array * obj = cson_value_get_array(myValue);
...
```

They can be created like:

```
cson_value * arV = cson_value_new_array();
cson_array * ar = cson_value_get_array(arV);
// ar is owned by arV and arV must eventually be freed
// using cson_value_free() or added to a container
// object/array (which transfers ownership to that container).
```

See also

```
cson_value_new_array()
cson_value_get_array()
cson_value_free()
```

Definition at line 2142 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.204 cson\_buffer Struct Reference

A generic buffer class.

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- **cson\_size\_t** **capacity**  
*The number of bytes allocated for this object.*
- **cson\_size\_t** **used**  
*The number of bytes "used" by this object.*
- **cson\_size\_t** **timesExpanded**  
*This is a debugging/metric-counting value intended to help certain malloc()-conscious clients tweak their memory reservation sizes.*
- **unsigned char \*** **mem**  
*The memory allocated for and owned by this buffer.*

### 4.204.1 Detailed Description

A generic buffer class.

They can be used like this:

```
cson_buffer b = cson_buffer_empty;
int rc = cson_buffer_reserve( &buf, 100 );
if( 0 != rc ) { ... allocation error ... }
... use buf.mem ...
... then free it up ...
cson_buffer_reserve( &buf, 0 );
```

To take over ownership of a buffer's memory:

```
void * mem = b.mem;
// mem is b.capacity bytes long, but only b.used
// bytes of it has been "used" by the API.
b = cson_buffer_empty;
```

The memory now belongs to the caller and must eventually be free()d.

Definition at line 1826 of file cson\_amalgamation\_core.h.

### 4.204.2 Field Documentation

#### 4.204.2.1 capacity

```
cson_size_t cson_buffer::capacity
```

The number of bytes allocated for this object.

Use cson\_buffer\_reserve() to change its value.

Definition at line 1832 of file cson\_amalgamation\_core.h.

#### 4.204.2.2 mem

```
unsigned char* cson_buffer::mem
```

The memory allocated for and owned by this buffer.

Use cson\_buffer\_reserve() to change its size or free it. To take over ownership, do:

```
void * myptr = buf.mem;
buf = cson_buffer_empty;
```

(You might also need to store buf.used and buf.capacity, depending on what you want to do with the memory.)

When doing so, the memory must eventually be passed to free() to deallocate it.

Definition at line 1868 of file cson\_amalgamation\_core.h.

#### 4.204.2.3 timesExpanded

```
cson_size_t cson_buffer::timesExpanded
```

This is a debugging/metric-counting value intended to help certain malloc()-conscious clients tweak their memory reservation sizes.

Each time `cson_buffer_reserve()` expands the buffer, it increments this value by 1.

Definition at line 1850 of file `cson_amalgamation_core.h`.

#### 4.204.2.4 used

```
cson_size_t cson_buffer::used
```

The number of bytes "used" by this object.

It is not needed for all use cases, and management of this value (if needed) is up to the client. The **`cson_buffer`** (p. 162) public API does not use this member. The intention is that this can be used to track the length of strings which are allocated via **`cson_buffer`** (p. 162), since they need an explicit length and/or null terminator.

Definition at line 1841 of file `cson_amalgamation_core.h`.

The documentation for this struct was generated from the following file:

- `src/SSR/cson/cson_amalgamation_core.h`

## 4.205 cson\_data\_source\_StringSource\_ Struct Reference

Internal type to hold state for a JSON input string.

### Data Fields

- `const char * str`  
*Start of input string.*
- `const char * pos`  
*Current iteration position.*
- `const char * end`  
*Logical EOF, one-past-the-end of str.*

#### 4.205.1 Detailed Description

Internal type to hold state for a JSON input string.

Definition at line 4325 of file `cson_amalgamation_core.c`.



## 4.205.2 Field Documentation

### 4.205.2.1 pos

```
const char* cson_data_source_StringSource_::pos
```

Current iteration position.

Must initially be == str.

Definition at line 4330 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.206 cson\_kvp Struct Reference

A key/value pair collection.

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- **cson\_value \* key**
- **cson\_value \* value**

### 4.206.1 Detailed Description

A key/value pair collection.

Each of these objects owns its key/value pointers, and they are cleaned up by cson\_kvp\_clean().

This class represents a key/value pair and is used for storing object properties. It is opaque to client code, and the public API only uses this type for purposes of iterating over **cson\_object** (p. 166) properties using the **cson\_↔object\_iterator** (p. 167) interfaces.

Definition at line 2022 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.207 cson\_kvp\_list Struct Reference

### Data Fields

- **cson\_kvp** \*\* list
- unsigned int **count**
- unsigned int **allocated**

### 4.207.1 Detailed Description

Definition at line 2114 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.208 cson\_object Struct Reference

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- **cson\_kvp\_list** kvp

### 4.208.1 Detailed Description

**cson\_object** (p. 166) is an opaque handle to an Object value.

They are used like:

```
cson_object * obj = cson_value_get_object(myValue);  
...
```

They can be created like:

```
cson_value * objV = cson_value_new_object();  
cson_object * obj = cson_value_get_object(objV);  
// obj is owned by objV and objV must eventually be freed  
// using cson_value_free() or added to a container  
// object/array (which transfers ownership to that container).
```

See also

```
cson_value_new_object()  
cson_value_get_object()  
cson_value_free()
```

Definition at line 2124 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.209 cson\_object\_iterator Struct Reference

An iterator type for traversing object properties.

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- const **cson\_object** \* **obj**
- unsigned int **pos**

### 4.209.1 Detailed Description

An iterator type for traversing object properties.

Its values must be considered private, not to be touched by client code.

See also

```
cson_object_iter_init()  
cson_object_iter_next()
```

Definition at line 1699 of file cson\_amalgamation\_core.h.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.h

## 4.210 cson\_output\_opt Struct Reference

Client-configurable options for the cson\_output() family of functions.

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- unsigned char **indentation**  
*Specifies how to indent (or not) output.*
- unsigned short **maxDepth**  
*Maximum object/array depth to traverse.*
- char **addNewline**  
*If true, a newline will be added to generated output, else not.*
- char **addSpaceAfterColon**  
*If true, a space will be added after the colon operator in objects' key/value pairs.*
- char **indentSingleMemberValues**  
*If set to 1 then objects/arrays containing only a single value will not indent an extra level for that value (but will indent on subsequent levels if that value contains multiple values).*
- char **escapeForwardSlashes**  
*The JSON format allows, but does not require, JSON generators to backslash-escape forward slashes.*

### 4.210.1 Detailed Description

Client-configurable options for the `cson_output()` family of functions.

Definition at line 517 of file `cson_amalgamation_core.h`.

### 4.210.2 Field Documentation

#### 4.210.2.1 `escapeForwardSlashes`

```
char cson_output_opt::escapeForwardSlashes
```

The JSON format allows, but does not require, JSON generators to backslash-escape forward slashes.

This option enables/disables that feature. According to JSON's inventor, Douglas Crockford:

<quote> It is allowed, not required. It is allowed so that JSON can be safely embedded in HTML, which can freak out when seeing strings containing "</". JSON tolerates "<\\" for this reason. </quote>

(from an email on 2011-04-08)

The default value is 0 (because it's just damned ugly).

Definition at line 572 of file `cson_amalgamation_core.h`.

#### 4.210.2.2 `indentation`

```
unsigned char cson_output_opt::indentation
```

Specifies how to indent (or not) output.

The values are:

(0) == no extra indentation.

(1) == 1 TAB character for each level.

(>1) == that number of SPACES for each level.

Definition at line 529 of file `cson_amalgamation_core.h`.

### 4.210.2.3 maxDepth

```
unsigned short cson_output_opt::maxDepth
```

Maximum object/array depth to traverse.

Traversing deeply can be indicative of cycles in the object/array tree, and this value is used to figure out when to abort the traversal.

Definition at line 536 of file cson\_amalgamation\_core.h.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.h

## 4.211 cson\_parse\_info Struct Reference

A class for holding JSON parser information.

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- unsigned int **line**  
*1-based line number.*
- unsigned int **col**  
*0-based column number.*
- unsigned int **length**  
*Length, in bytes.*
- int **errorCode**  
*Error code of the parse run (0 for no error).*
- unsigned int **totalKeyCount**  
*The total number of object keys successfully processed by the parser.*
- unsigned int **totalValueCount**  
*The total number of object/array values successfully processed by the parser, including the root node.*

### 4.211.1 Detailed Description

A class for holding JSON parser information.

It is primarily intended for finding the position of a parse error.

Definition at line 458 of file cson\_amalgamation\_core.h.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.h

## 4.212 cson\_parse\_opt Struct Reference

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- unsigned short **maxDepth**  
*Maximum object/array depth to traverse.*
- char **allowComments**  
*Whether or not to allow C-style comments.*

### 4.212.1 Detailed Description

Client-configurable options for the cson\_parse() family of functions.

Definition at line 433 of file cson\_amalgamation\_core.h.

### 4.212.2 Field Documentation

#### 4.212.2.1 allowComments

```
char cson_parse_opt::allowComments
```

Whether or not to allow C-style comments.

Do not rely on this option being available. If the underlying parser is replaced, this option might no longer be supported.

Definition at line 444 of file cson\_amalgamation\_core.h.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.h

## 4.213 cson\_parser Struct Reference

### Data Fields

- **JSON\_parser** p
- **cson\_value** \* root
- **cson\_value** \* node
- **cson\_array** stack
- **cson\_string** \* ckey
- int **errNo**
- unsigned int **totalKeyCount**
- unsigned int **totalValueCount**

### 4.213.1 Detailed Description

Definition at line 2151 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.214 cson\_string Struct Reference

Strings are allocated as an instances of this class with N+1 trailing bytes, where N is the length of the string being allocated.

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- unsigned int **length**

### 4.214.1 Detailed Description

Strings are allocated as an instances of this class with N+1 trailing bytes, where N is the length of the string being allocated.

To convert a **cson\_string** (p. 171) to c-string we simply increment the **cson\_string** (p. 171) pointer. To do the opposite we use (cstr - sizeof(cson\_string)). Zero-length strings are a special case handled by a couple of the **cson\_string** (p. 171) functions.

cson-internal string type, opaque to client code. Strings in cson are immutable and allocated only by library internals, never directly by client code.

The actual string bytes are to be allocated together in the same memory chunk as the **cson\_string** (p. 171) object, which saves us 1 malloc() and 1 pointer member in this type (because we no longer have a direct pointer to the memory).

Potential TODOs:

See also

cson\_string\_cstr()

Definition at line 1578 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.215 cson\_value Struct Reference

```
#include <cson_amalgamation_core.h>
```

### Data Fields

- const **cson\_value\_api** \* **api**  
*The "vtbl" of type-specific operations.*
- void \* **value**  
*The raw value.*
- cson\_counter\_t **refcount**  
*We use this to allow us to store **cson\_value** (p. 172) instances in multiple containers or multiple times within a single container (provided no cycles are introduced).*

### 4.215.1 Detailed Description

The core value type of this API. It is opaque to clients, and only the cson public API should be used for setting or inspecting their values.

This class is opaque because stack-based usage can easily cause leaks if one does not intimately understand the underlying internal memory management (which sometimes changes).

It is (as of 20110323) legal to insert a given value instance into multiple containers (they will share ownership using reference counting) as long as those insertions do not cause cycles. However, be very aware that such value re-use uses a reference to the original copy, meaning that if its value is changed once, it is changed everywhere. Also beware that multi-threaded write operations on such references leads to undefined behaviour.

PLEASE read the ACHTUNGEN below...

ACHTUNG #1:

cson\_values MUST NOT form cycles (e.g. via object or array entries).

Not abiding th Holy Law Of No Cycles will lead to double-frees and the like (i.e. undefined behaviour, likely crashes due to infinite recursion or stepping on invalid (freed) pointers).

ACHTUNG #2:

ALL cson\_values returned as non-const **cson\_value** (p. 172) pointers from any public functions in the cson API are to be treated as if they are heap-allocated, and MUST be freed by client by doing ONE of:

- Passing it to cson\_value\_free().
- Adding it to an Object or Array, in which case the object/array takes over ownership. As of 20110323, a value may be inserted into a single container multiple times, or into multiple containers, in which case they all share ownership (via reference counting) of the original value (meaning any changes to it are visible in all references to it).

Each call to cson\_value\_new\_xxx() MUST eventually be followed up by one of those options.

Some cson\_value\_new\_XXX() implementations do not actually allocate memory, but this is an internal implementation detail. Client code MUST NOT rely on this behaviour and MUST treat each object returned by such a function as if it was a freshly-allocated copy (even if their pointer addresses are the same).

ACHTUNG #3:

Note that ACHTUNG #2 tells us that we must always free (or transfer ownership of) all pointers returned by cson\_value\_new\_xxx(), but that two calls to (e.g.) cson\_value\_new\_bool(1) will (or might) return the same address. The client must not rely on the "non-allocation" policy of such special cases, and must pass each returned value to cson\_value\_free(), even if two of them have the same address. Some special values (e.g. null, true, false, integer 0, double 0.0, and empty strings) use shared copies and in other places reference counting is used internally to figure out when it is safe to destroy an object.



## See also

```
cson_value_new_array()
cson_value_new_object()
cson_value_new_string()
cson_value_new_integer()
cson_value_new_double()
cson_value_new_bool()
cson_value_true()
cson_value_false()
cson_value_null()
cson_value_free()
cson_value_type_id()
```

Definition at line 1486 of file cson\_amalgamation\_core.c.

## 4.215.2 Field Documentation

### 4.215.2.1 api

```
const cson_value_api* cson_value::api
```

The "vtbl" of type-specific operations.

All instances of a given logical value type share a single api instance.

Results are undefined if this value is NULL.

Definition at line 1493 of file cson\_amalgamation\_core.c.

### 4.215.2.2 refcount

```
cson_counter_t cson_value::refcount
```

We use this to allow us to store **cson\_value** (p. 172) instances in multiple containers or multiple times within a single container (provided no cycles are introduced).

Notes about the rc implementation:

- The refcount is for the **cson\_value** (p. 172) instance itself, not its value pointer.
- Instances start out with a refcount of 0 (not 1). Adding them to a container will increase the refcount. Cleaning up the container will decrement the count.
- `cson_value_free()` decrements the refcount (if it is not already 0) and cleans/frees the value only when the refcount is 0.
- Some places in the internals add an "extra" reference to objects to avoid a premature deletion. Don't try this at home.

Definition at line 1526 of file cson\_amalgamation\_core.c.

### 4.215.2.3 value

```
void* cson_value::value
```

The raw value.

Its interpretation depends on the value of the `api` member. Some value types require dynamically-allocated memory, so one must always call `cson_value_free()` to destroy a value when it is no longer needed. For stack-allocated values (which client could **SHOULD NOT USE** unless they are intimately familiar with the memory management rules and don't mind an occasional leak or crash), use `cson_value_clean()` instead of `cson_value_free()`.

Definition at line 1504 of file `cson_amalgamation_core.c`.

The documentation for this struct was generated from the following file:

- `src/SSR/cson/cson_amalgamation_core.c`

## 4.216 cson\_value\_api Struct Reference

This type holds the "vtbl" for type-specific operations when working with **cson\_value** (p. 172) objects.

### Data Fields

- `const cson_type_id typeId`  
*The logical JavaScript/JSON type associated with this object.*
- `void(* cleanup)(cson_value *self)`  
*Must free any memory associated with self, but not free self.*

### 4.216.1 Detailed Description

This type holds the "vtbl" for type-specific operations when working with **cson\_value** (p. 172) objects.

All `cson_values` of a given logical type share a pointer to a single library-internal instance of this class.

Definition at line 1443 of file `cson_amalgamation_core.c`.

### 4.216.2 Field Documentation

#### 4.216.2.1 cleanup

```
void(* cson_value_api::cleanup) ( cson_value *self)
```

Must free any memory associated with self, but not free self.

If self is NULL then this function must do nothing.

Definition at line 1455 of file `cson_amalgamation_core.c`.

The documentation for this struct was generated from the following file:

- `src/SSR/cson/cson_amalgamation_core.c`

## 4.217 cson\_value\_list Struct Reference

### Data Fields

- **cson\_value \*\* list**
- unsigned int **count**
- unsigned int **allocated**

### 4.217.1 Detailed Description

Definition at line 2132 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.218 curfile64\_info Struct Reference

### Data Fields

- z\_stream **stream**
- int **stream\_initialised**
- uInt **pos\_in\_buffered\_data**
- ZPOS64\_T **pos\_local\_header**
- char \* **central\_header**
- uLong **size\_centralExtra**
- uLong **size\_centralheader**
- uLong **size\_centralExtraFree**
- uLong **flag**
- int **method**
- int **raw**
- Byte **buffered\_data** [Z\_BUFSIZE]
- uLong **dosDate**
- uLong **crc32**
- int **encrypt**
- int **zip64**
- ZPOS64\_T **pos\_zip64extrainfo**
- ZPOS64\_T **totalCompressedData**
- ZPOS64\_T **totalUncompressedData**
- unsigned long **keys** [3]
- const unsigned long \* **pcrc\_32\_tab**
- int **crypt\_header\_size**

### 4.218.1 Detailed Description

Definition at line 130 of file zip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/zip.c

## 4.219 currayhit Struct Reference

### Data Fields

- struct **X3D\_Node** \* **hitNode**
- GLDOUBLE **modelMatrix** [16]
- GLDOUBLE **projMatrix** [16]
- GLDOUBLE **justModel** [16]

### 4.219.1 Detailed Description

Definition at line 39 of file RenderFuncs.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/RenderFuncs.h

## 4.220 Curve Class Reference

### Public Member Functions

- **Curve** ( **Quilt** \*, REAL, REAL, **Curve** \*)
- **Curve** ( **Curve** &, REAL, **Curve** \*)

### Data Fields

- **Curve** \* **next**

### Friends

- class **Curvelist**

### 4.220.1 Detailed Description

Definition at line 46 of file curve.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/curve.h
- src/libnurbs/internals/curve.cc

## 4.221 curveEvalMachine Struct Reference

### Data Fields

- REAL **uprime**
- int **k**
- REAL **u1**
- REAL **u2**
- int **ustride**
- int **uorder**
- REAL **ctlpoints** [IN\_MAX\_BEZIER\_ORDER \* IN\_MAX\_DIMENSION]
- REAL **ucoeff** [IN\_MAX\_BEZIER\_ORDER]

### 4.221.1 Detailed Description

Definition at line 56 of file glcurveval.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/interface/glcurveval.h

## 4.222 Curvelist Class Reference

### Public Member Functions

- **Curvelist** ( **Quilt** \*, REAL, REAL)
- **Curvelist** ( **Curvelist** &, REAL)
- int **cullCheck** (void)
- void **getstepsize** (void)
- int **needsSamplingSubdivision** ()

### Friends

- class **Subdivider**

### 4.222.1 Detailed Description

Definition at line 46 of file curvelist.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/curvelist.h
- src/libnurbs/internals/curvelist.cc

## 4.223 damper\_ptr Struct Reference

### Data Fields

- void \* **value\_changed**
- void \* **initialDestination**
- void \* **initialValue**
- void \* **set\_destination**
- void \* **set\_value**
- void \* **\_values**
- void \* **\_input**

### 4.223.1 Detailed Description

Definition at line 176 of file Component\_Followers.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Followers.c

## 4.224 DataPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** mySimulationManagementFamilyPdu
- unsigned int **requestID**  
*ID of request.*
- unsigned int **padding1**  
*padding*
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

### 4.224.1 Detailed Description

Definition at line 1407 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.225 DataQueryPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** **mySimulationManagementFamilyPdu**
- unsigned int **requestID**  
*ID of request.*
- unsigned int **timeInterval**  
*time issues between issues of Data PDUs.*
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

### 4.225.1 Detailed Description

Definition at line 815 of file DIS.h.

### 4.225.2 Field Documentation

#### 4.225.2.1 timeInterval

```
unsigned int DataQueryPdu::timeInterval
```

time issues between issues of Data PDUs.

Zero means send once only.

Definition at line 820 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.226 DataQueryReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliability**↔  
**FamilyPdu**
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **requestID**  
*request ID*
- unsigned int **timeInterval**  
*time interval between issuing data query PDUs*
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*

### 4.226.1 Detailed Description

Definition at line 1570 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.227 DataReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliability**↔  
**FamilyPdu**
- unsigned int **requestID**  
*Request ID.*
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*



### 4.227.1 Detailed Description

Definition at line 1689 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.228 datChnk Struct Reference

### Data Fields

- char **chunkID** [4]
- int32\_t **chunkSize**

### 4.228.1 Detailed Description

Definition at line 65 of file soundheader.h.

The documentation for this struct was generated from the following file:

- src/sound/soundheader.h

## 4.229 dct\_dc\_size\_entry Struct Reference

### Data Fields

- unsigned int **value**
- int **num\_bits**

### 4.229.1 Detailed Description

Definition at line 795 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.230 DDS\_header Union Reference

### Data Fields

- ```

      struct {
          unsigned int dwMagic
          unsigned int dwSize
          unsigned int dwFlags
          unsigned int dwHeight
          unsigned int dwWidth
          unsigned int dwPitchOrLinearSize
          unsigned int dwDepth
          unsigned int dwMipMapCount
          unsigned int dwReserved1 [11]
          struct {
              unsigned int dwSize
              unsigned int dwFlags
              unsigned int dwFourCC
              unsigned int dwRGBBitCount
              unsigned int dwRBitMask
              unsigned int dwGBitMask
              unsigned int dwBBitMask
              unsigned int dwAlphaBitMask
          } sPixelFormat
          struct {
              unsigned int dwCaps1
              unsigned int dwCaps2
              unsigned int dwDDSX
              unsigned int dwReserved
          } sCaps
          unsigned int dwReserved2
      };
      
```
- char **data** [128]

### 4.230.1 Detailed Description

Definition at line 460 of file Component\_CubeMapTexturing.c.

The documentation for this union was generated from the following file:

- src/lib/scenegraph/Component\_CubeMapTexturing.c

## 4.231 DdsLoadInfo Struct Reference

### Data Fields

- bool **compressed**
- bool **swap**
- bool **palette**
- unsigned int **divSize**
- unsigned int **blockBytes**
- GLenum **internalFormat**
- GLenum **externalFormat**
- GLenum **type**

### 4.231.1 Detailed Description

Definition at line 499 of file Component\_CubeMapTexturing.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_CubeMapTexturing.c

## 4.232 DeadReckoningParameter Struct Reference

### Data Fields

- unsigned char **deadReckoningAlgorithm**  
*enumeration of what dead reckoning algorithm to use*
- char **otherParameters** [15]  
*other parameters to use in the dead reckoning algorithm*
- struct **Vector3Float** **entityLinearAcceleration**  
*Linear acceleration of the entity.*
- struct **Vector3Float** **entityAngularVelocity**  
*angular velocity of the entity*

### 4.232.1 Detailed Description

Definition at line 734 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.233 depth\_slice Struct Reference

### Data Fields

- double **znear**
- double **zfar**

### 4.233.1 Detailed Description

Definition at line 3148 of file OpenGL\_Uutils.c.

The documentation for this struct was generated from the following file:

- src/lib/opengl/OpenGL\_Uutils.c

## 4.234 DesignatorPdu Struct Reference

### Data Fields

- struct **DistributedEmissionsFamilyPdu** **myDistributedEmissionsFamilyPdu**
- struct **EntityID** **designatingEntityID**  
*ID of the entity designating.*
- unsigned short **codeName**  
*This field shall specify a unique emitter database number assigned to differentiate between otherwise similar or identical emitter beams within an emitter system.*
- struct **EntityID** **designatedEntityID**  
*ID of the entity being designated.*
- unsigned short **designatorCode**  
*This field shall identify the designator code being used by the designating entity*
- float **designatorPower**  
*This field shall identify the designator output power in watts.*
- float **designatorWavelength**  
*This field shall identify the designator wavelength in units of microns.*
- struct **Vector3Float** **designatorSpotWrtDesignated**  
*designator spot wrt the designated entity*
- struct **Vector3Double** **designatorSpotLocation**  
*designator spot wrt the designated entity*
- char **deadReckoningAlgorithm**  
*Dead reckoning algorithm.*
- unsigned short **padding1**  
*padding*
- char **padding2**  
*padding*
- struct **Vector3Float** **entityLinearAcceleration**  
*linear accelleration of entity*

### 4.234.1 Detailed Description

Definition at line 1109 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.235 DetonationPdu Struct Reference

### Data Fields

- struct **WarfareFamilyPdu** **myWarfareFamilyPdu**
- struct **EntityID** **munitionID**  
*ID of munition that was fired.*
- struct **EventID** **eventID**  
*ID firing event.*
- struct **Vector3Float** **velocity**  
*ID firing event.*
- struct **Vector3Double** **locationInWorldCoordinates**  
*where the detonation is, in world coordinates*
- struct **BurstDescriptor** **burstDescriptor**  
*Describes munition used.*
- struct **Vector3Float** **locationInEntityCoordinates**  
*location of the detonation or impact in the target entity's coordinate system.*
- unsigned char **detonationResult**  
*result of the explosion*
- unsigned char **numberOfArticulationParameters**  
*How many articulation parameters we have.*
- short **pad**  
*padding*
- void \* **articulationParameters**

### 4.235.1 Detailed Description

Definition at line 1736 of file DIS.h.

### 4.235.2 Field Documentation

#### 4.235.2.1 locationInEntityCoordinates

```
struct Vector3Float DetonationPdu::locationInEntityCoordinates
```

location of the detonation or impact in the target entity's coordinate system.

This information should be used for damage assessment.

Definition at line 1749 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.236 Dict Struct Reference

### Data Fields

- **DictNode head**
- void \* **frame**
- int(\* **leq** )(void \*frame, DictKey key1, DictKey key2)

### 4.236.1 Detailed Description

Definition at line 94 of file dict-list.h.

The documentation for this struct was generated from the following files:

- src/libtess/dict-list.h
- src/libtess/dict.h

## 4.237 DictNode Struct Reference

### Data Fields

- DictKey **key**
- **DictNode \* next**
- **DictNode \* prev**

### 4.237.1 Detailed Description

Definition at line 88 of file dict-list.h.

The documentation for this struct was generated from the following files:

- src/libtess/dict-list.h
- src/libtess/dict.h

## 4.238 directedLine Class Reference

### Public Member Functions

- **directedLine** (short dir, **sampledLine** \*sl)
- void **init** (short dir, **sampledLine** \*sl)
- **Real** \* **head** ()
- **Real** \* **tail** ()
- **Real** \* **getVertex** (Int i)
- Int **get\_npoints** ()
- **directedLine** \* **getPrev** ()
- **directedLine** \* **getNext** ()
- **directedLine** \* **getNextPolygon** ()
- **sampledLine** \* **getSampledLine** ()
- short **getDirection** ()
- void **putDirection** (short dir)
- void **putPrev** ( **directedLine** \*p)
- void **putNext** ( **directedLine** \*p)
- void **insert** ( **directedLine** \*nl)
- void **deletePolygonList** ()
- void **deleteSinglePolygon** ()
- void **deleteSinglePolygonWithSline** ()
- void **deletePolygonListWithSline** ()
- void **deleteSingleLine** ( **directedLine** \*dline)
- **directedLine** \* **deleteDegenerateLines** ()
- **directedLine** \* **deleteDegenerateLinesAllPolygons** ()
- **directedLine** \* **cutIntersectionAllPoly** (int &cutOccur)
- short **isPolygon** ()
- Int **complnY** ( **directedLine** \*nl)
- Int **complnX** ( **directedLine** \*nl)
- **directedLine** \*\* **sortAllPolygons** ()
- Int **numEdges** ()
- Int **numEdgesAllPolygons** ()
- Int **numPolygons** ()
- short **isConnected** ()
- **Real** **polyArea** ()
- void **printSingle** ()
- void **printList** ()
- void **printAllPolygons** ()
- void **writeAllPolygons** (char \*filename)
- **directedLine** \* **insertPolygon** ( **directedLine** \*newpolygon)
- **directedLine** \* **cutoffPolygon** ( **directedLine** \*p)
- Int **toArraySinglePolygon** ( **directedLine** \*\*array, Int index)
- **directedLine** \*\* **toArrayAllPolygons** (Int &total\_num\_edges)
- void **connectDiagonal** ( **directedLine** \*v1, **directedLine** \*v2, **directedLine** \*\*ret\_p1, **directedLine** \*\*ret\_p2, **sampledLine** \*\*generatedLine, **directedLine** \*list)
- void **connectDiagonal\_2slines** ( **directedLine** \*v1, **directedLine** \*v2, **directedLine** \*\*ret\_p1, **directedLine** \*\*ret\_p2, **directedLine** \*list)
- Int **samePolygon** ( **directedLine** \*v1, **directedLine** \*v2)
- void **setRootBit** ()
- void **resetRootBit** ()
- **directedLine** \* **findRoot** ()
- void **rootLinkSet** ( **directedLine** \*r)
- **directedLine** \* **rootLinkFindRoot** ()
- **directedLine** \* **deleteChain** ( **directedLine** \*begin, **directedLine** \*end)

### 4.238.1 Detailed Description

Definition at line 41 of file directedLine.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/directedLine.h
- src/libnurbs/nurbtess/directedLine.cc

## 4.239 dis\_class Struct Reference

### Data Fields

- struct **disfieldattr** \* **fields**
- unsigned char **pduType**
- unsigned char **protocolFamily**

### 4.239.1 Detailed Description

Definition at line 1421 of file DIS.c.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.c

## 4.240 dis\_socket Struct Reference

### Data Fields

- int **port**
- char \* **address**
- SOCKET **socket**
- struct sockaddr\_in **saddr**
- int **multicastRelayPort**
- char \* **multicastRelayHost**
- int **idir**
- struct **Vector** \* **registered**
- double **lasttime**

### 4.240.1 Detailed Description

Definition at line 101 of file socketutils.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/socketutils.c



## 4.241 disfieldattr Struct Reference

### Data Fields

- int **kind**
- int **type**
- char \* **name**
- char \* **comment**
- int **listLength**
- char \* **countfieldname**
- int **countfieldindex**
- int **dynamicListClassAttribute**
- double **defaultvalue**
- int **listkind**
- int **couldBeString**
- int **isBitField**
- int **size**
- int **offset**

### 4.241.1 Detailed Description

Definition at line 166 of file DIS.c.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.c

## 4.242 DisplayList Class Reference

### Public Member Functions

- **DisplayList** ( **NurbsTessellator** \*)
- void **play** (void)
- void **append** (PFVS work, void \*arg, PFVS cleanup)
- void **endList** (void)

### 4.242.1 Detailed Description

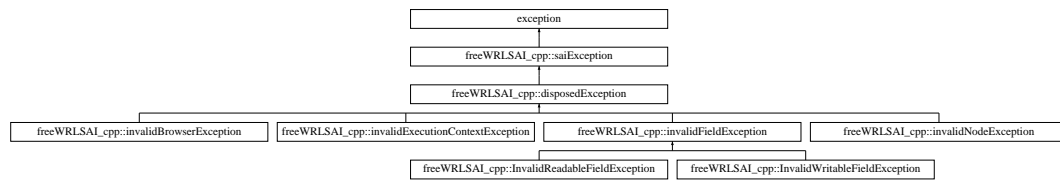
Definition at line 64 of file displaylist.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/displaylist.h
- src/libnurbs/internals/displaylist.cc

## 4.243 freeWRLSAI\_cpp::disposedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::disposedException:



### Public Member Functions

- virtual const char \* **what** ()

### Additional Inherited Members

#### 4.243.1 Detailed Description

Definition at line 96 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.244 DistributedEmissionsFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** myPdu

#### 4.244.1 Detailed Description

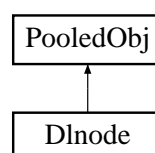
Definition at line 1055 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.245 Dlnode Struct Reference

Inheritance diagram for Dlnode:



## Public Member Functions

- **Dlnode** (PFVS, void \*, PFVS)

## Data Fields

- PFVS **work**
- void \* **arg**
- PFVS **cleanup**
- **Dlnode** \* **next**

### 4.245.1 Detailed Description

Definition at line 48 of file displaylist.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/displaylist.h

## 4.246 draw\_call\_params Struct Reference

### Data Fields

- int **calltype**
- ```
union {  
    struct arrays {  
        int arrays_mode  
        int arrays_count  
        int arrays_first  
    } arrays  
    struct elements {  
        int elements_mode  
        int elements_count  
        ushort * elements_indices  
    } elements  
};
```

### 4.246.1 Detailed Description

Definition at line 71 of file RenderFuncs.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/RenderFuncs.c

## 4.247 duk\_\_bigint Struct Reference

### Data Fields

- duk\_small\_int\_t **n**
- duk\_uint32\_t **v** [DUK\_\_BI\_MAX\_PARTS]

### 4.247.1 Detailed Description

Definition at line 79158 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.248 duk\_\_compile\_raw\_args Struct Reference

### Data Fields

- duk\_size\_t **src\_length**
- const duk\_uint8\_t \* **src\_buffer**
- duk\_uint\_t **flags**

### 4.248.1 Detailed Description

Definition at line 14477 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.249 duk\_\_compiler\_stkstate Struct Reference

### Data Fields

- duk\_small\_uint\_t **flags**
- duk\_compiler\_ctx **comp\_ctx\_alloc**
- duk\_lexer\_point **lex\_pt\_alloc**

### 4.249.1 Detailed Description

Definition at line 60564 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.250 duk\_\_decode\_context Struct Reference

### Data Fields

- duk\_codepoint\_t **codepoint**
- duk\_uint8\_t **upper**
- duk\_uint8\_t **lower**
- duk\_uint8\_t **needed**
- duk\_uint8\_t **bom\_handled**
- duk\_uint8\_t **fatal**
- duk\_uint8\_t **ignore\_bom**

### 4.250.1 Detailed Description

Definition at line 28998 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.251 duk\_\_encode\_context Struct Reference

### Data Fields

- duk\_uint8\_t \* **out**
- duk\_codepoint\_t **lead**

### 4.251.1 Detailed Description

Definition at line 28993 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.252 duk\_\_exp\_limits Struct Reference

### Data Fields

- duk\_int16\_t **upper**
- duk\_int16\_t **lower**

### 4.252.1 Detailed Description

Definition at line 79117 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.253 duk\_\_id\_lookup\_result Struct Reference

### Data Fields

- **duk\_hobject** \* holder
- **duk\_tval** \* value
- **duk\_int\_t** attrs
- **duk\_tval** \* this\_binding
- **duk\_hobject** \* env

### 4.253.1 Detailed Description

Definition at line 74922 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.254 duk\_\_numconv\_stringify\_ctx Struct Reference

### Data Fields

- **duk\_\_bigint** f
- **duk\_\_bigint** r
- **duk\_\_bigint** s
- **duk\_\_bigint** mp
- **duk\_\_bigint** mm
- **duk\_\_bigint** t1
- **duk\_\_bigint** t2
- **duk\_small\_int\_t** is\_s2n
- **duk\_small\_int\_t** is\_fixed
- **duk\_small\_int\_t** req\_digits
- **duk\_small\_int\_t** abs\_pos
- **duk\_small\_int\_t** e
- **duk\_small\_int\_t** b
- **duk\_small\_int\_t** B
- **duk\_small\_int\_t** k
- **duk\_small\_int\_t** low\_ok
- **duk\_small\_int\_t** high\_ok
- **duk\_small\_int\_t** unequal\_gaps
- **duk\_uint8\_t** digits [DUK\_\_MAX\_OUTPUT\_DIGITS]
- **duk\_small\_int\_t** count

### 4.254.1 Detailed Description

Definition at line 79713 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.255 duk\_\_objlit\_state Struct Reference

### Data Fields

- duk\_reg\_t **reg\_obj**
- duk\_reg\_t **temp\_start**
- duk\_small\_uint\_t **num\_pairs**

### 4.255.1 Detailed Description

Definition at line 63400 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.256 duk\_\_pcall\_prop\_args Struct Reference

### Data Fields

- duk\_idx\_t **obj\_idx**
- duk\_idx\_t **nargs**

### 4.256.1 Detailed Description

Definition at line 13370 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.257 duk\_\_re\_disjunction\_info Struct Reference

### Data Fields

- duk\_int32\_t **charlen**

### 4.257.1 Detailed Description

Definition at line 81390 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.258 duk\_\_transform\_context Struct Reference

### Data Fields

- **duk\_hthread** \* **thr**
- **duk\_hstring** \* **h\_str**
- **duk\_bufwriter\_ctx** **bw**
- const duk\_uint8\_t \* **p**
- const duk\_uint8\_t \* **p\_start**
- const duk\_uint8\_t \* **p\_end**

### 4.258.1 Detailed Description

Definition at line 30416 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.259 duk\_activation Struct Reference

### Data Fields

- **duk\_tval** **tv\_func**
- **duk\_hobject** \* **func**
- **duk\_hobject** \* **var\_env**
- **duk\_hobject** \* **lex\_env**
- duk\_instr\_t \* **curr\_pc**
- duk\_small\_uint\_t **flags**
- duk\_size\_t **idx\_bottom**
- duk\_size\_t **idx\_retval**

### 4.259.1 Detailed Description

Definition at line 6846 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c



## 4.260 duk\_bitdecoder\_ctx Struct Reference

### Data Fields

- `const duk_uint8_t * data`
- `duk_size_t offset`
- `duk_size_t length`
- `duk_uint32_t currval`
- `duk_small_int_t currbits`

### 4.260.1 Detailed Description

Definition at line 1856 of file duktape.c.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/duktape/duktape.c`

## 4.261 duk\_bitencoder\_ctx Struct Reference

### Data Fields

- `duk_uint8_t * data`
- `duk_size_t offset`
- `duk_size_t length`
- `duk_uint32_t currval`
- `duk_small_int_t currbits`
- `duk_small_int_t truncated`

### 4.261.1 Detailed Description

Definition at line 1870 of file duktape.c.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/duktape/duktape.c`

## 4.262 duk\_breakpoint Struct Reference

### Data Fields

- `duk_hstring * filename`
- `duk_uint32_t line`

### 4.262.1 Detailed Description

Definition at line 7670 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.263 duk\_bufwriter\_ctx Struct Reference

### Data Fields

- duk\_uint8\_t \* **p**
- duk\_uint8\_t \* **p\_base**
- duk\_uint8\_t \* **p\_limit**
- duk\_hbuffer\_dynamic \* **buf**

### 4.263.1 Detailed Description

Definition at line 1941 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.264 duk\_catcher Struct Reference

### Data Fields

- duk\_hstring \* **h\_varname**
- duk\_instr\_t \* **pc\_base**
- duk\_size\_t **callstack\_index**
- duk\_size\_t **idx\_base**
- duk\_uint32\_t **flags**

### 4.264.1 Detailed Description

Definition at line 6898 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.265 duk\_compiler\_ctx Struct Reference

### Data Fields

- **duk\_hthread** \* thr
- **duk\_hstring** \* h\_filename
- **duk\_lexer\_ctx** lex
- **duk\_token** prev\_token
- **duk\_token** curr\_token
- **duk\_idx\_t** tok11\_idx
- **duk\_idx\_t** tok12\_idx
- **duk\_idx\_t** tok21\_idx
- **duk\_idx\_t** tok22\_idx
- **duk\_int\_t** recursion\_depth
- **duk\_int\_t** recursion\_limit
- **duk\_int\_t** emit\_jumpslot\_pc
- **duk\_compiler\_func** curr\_func

### 4.265.1 Detailed Description

Definition at line 3635 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.266 duk\_compiler\_func Struct Reference

### Data Fields

- **duk\_bufwriter\_ctx** bw\_code
- **duk\_hstring** \* h\_name
- **duk\_hobject** \* h\_consts
- **duk\_hobject** \* h\_funcs
- **duk\_hobject** \* h\_decls
- **duk\_hobject** \* h\_labelnames
- **duk\_hbuffer\_dynamic** \* h\_labelinfos
- **duk\_hobject** \* h\_argnames
- **duk\_hobject** \* h\_varmap
- **duk\_idx\_t** consts\_idx
- **duk\_idx\_t** funcs\_idx
- **duk\_idx\_t** decls\_idx
- **duk\_idx\_t** labelnames\_idx
- **duk\_idx\_t** labelinfos\_idx
- **duk\_idx\_t** argnames\_idx
- **duk\_idx\_t** varmap\_idx
- **duk\_reg\_t** temp\_first
- **duk\_reg\_t** temp\_next
- **duk\_reg\_t** temp\_max
- **duk\_reg\_t** shuffle1

- `duk_reg_t shuffle2`
- `duk_reg_t shuffle3`
- `duk_int_t nud_count`
- `duk_int_t led_count`
- `duk_int_t paren_level`
- `duk_bool_t expr_lhs`
- `duk_bool_t allow_in`
- `duk_int_t stmt_next`
- `duk_int_t label_next`
- `duk_int_t catch_depth`
- `duk_int_t with_depth`
- `duk_int_t fnum_next`
- `duk_int_t num_formals`
- `duk_reg_t reg_stmt_value`
- `duk_uint8_t is_function`
- `duk_uint8_t is_eval`
- `duk_uint8_t is_global`
- `duk_uint8_t is_namebinding`
- `duk_uint8_t is_constructable`
- `duk_uint8_t is_setget`
- `duk_uint8_t is_strict`
- `duk_uint8_t is_notail`
- `duk_uint8_t in_directive_prologue`
- `duk_uint8_t in_scanning`
- `duk_uint8_t may_direct_eval`
- `duk_uint8_t id_access_arguments`
- `duk_uint8_t id_access_slow`
- `duk_uint8_t id_access_slow_own`
- `duk_uint8_t is_arguments_shadowed`
- `duk_uint8_t needs_shuffle`
- `duk_uint8_t reject_regexp_in_adv`

#### 4.266.1 Detailed Description

Definition at line 3552 of file duktape.c.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/duktape/duktape.c`

### 4.267 duk\_compiler\_instr Struct Reference

#### Data Fields

- `duk_instr_t ins`
- `duk_uint32_t line`

### 4.267.1 Detailed Description

Definition at line 3516 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.268 duk\_double\_union Union Reference

### Data Fields

- double **d**
- float **f** [2]
- duk\_uint32\_t **ui** [2]
- duk\_uint16\_t **us** [4]
- duk\_uint8\_t **uc** [8]
- void \* **vp** [2]

### 4.268.1 Detailed Description

Definition at line 1292 of file duktape.h.

The documentation for this union was generated from the following file:

- src/lib/world\_script/duktape/duktape.h

## 4.269 duk\_function\_list\_entry Struct Reference

### Data Fields

- const char \* **key**
- duk\_c\_function **value**
- duk\_idx\_t **nargs**

### 4.269.1 Detailed Description

Definition at line 224 of file duktape.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.h

## 4.270 duk\_harray Struct Reference

### Data Fields

- **duk\_hobject** obj
- **duk\_uint32\_t** length
- **duk\_bool\_t** length\_nonwritable

### 4.270.1 Detailed Description

Definition at line 7057 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.271 duk\_hbuffer Struct Reference

### Data Fields

- **duk\_heaphdr** hdr
- **duk\_size\_t** size

### 4.271.1 Detailed Description

Definition at line 7255 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.272 duk\_hbuffer\_dynamic Struct Reference

### Data Fields

- **duk\_heaphdr** hdr
- **duk\_size\_t** size
- void \* **curr\_alloc**

### 4.272.1 Detailed Description

Definition at line 7355 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.273 duk\_hbuffer\_external Struct Reference

### Data Fields

- **duk\_heaphdr** **hdr**
- **duk\_size\_t** **size**
- **void \*** **curr\_alloc**

### 4.273.1 Detailed Description

Definition at line 7384 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.274 duk\_hbuffer\_fixed Struct Reference

### Data Fields

- ```
union {  
    struct {  
        duk_heaphdr hdr  
        duk_size_t size  
    } s  
    duk_double_t dummy_for_align8  
} u
```

### 4.274.1 Detailed Description

Definition at line 7301 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.275 duk\_hbufobj Struct Reference

### Data Fields

- **duk\_hobject** **obj**
- **duk\_hbuffer \*** **buf**
- **duk\_hobject \*** **buf\_prop**
- **duk\_uint\_t** **offset**
- **duk\_uint\_t** **length**
- **duk\_uint8\_t** **shift**
- **duk\_uint8\_t** **elem\_type**
- **duk\_uint8\_t** **is\_typedarray**

### 4.275.1 Detailed Description

Definition at line 6593 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.276 duk\_hcompfunc Struct Reference

### Data Fields

- **duk\_hobject** obj
- **duk\_hbuffer** \* data
- **duk\_hobject** \*\* funcs
- **duk\_instr\_t** \* bytecode
- **duk\_hobject** \* lex\_env
- **duk\_hobject** \* var\_env
- **duk\_uint16\_t** nregs
- **duk\_uint16\_t** nargs

### 4.276.1 Detailed Description

Definition at line 6334 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.277 duk\_heap Struct Reference

### Data Fields

- **duk\_small\_uint\_t** flags
- **duk\_alloc\_function** alloc\_func
- **duk\_realloc\_function** realloc\_func
- **duk\_free\_function** free\_func
- void \* **heap\_udata**
- **duk\_fatal\_function** fatal\_func
- **duk\_heaphdr** \* heap\_allocated
- **duk\_heaphdr** \* refzero\_list
- **duk\_heaphdr** \* refzero\_list\_tail
- **duk\_int\_t** mark\_and\_sweep\_trigger\_counter
- **duk\_int\_t** mark\_and\_sweep\_recursion\_depth
- **duk\_small\_uint\_t** mark\_and\_sweep\_base\_flags
- **duk\_heaphdr** \* finalize\_list
- **duk\_ljstate** lj
- **duk\_bool\_t** handling\_error



- **duk\_hthread** \* heap\_thread
- **duk\_hthread** \* curr\_thread
- **duk\_hobject** \* heap\_object
- duk\_int\_t call\_recursion\_depth
- duk\_int\_t call\_recursion\_limit
- duk\_uint32\_t hash\_seed
- duk\_uint32\_t rnd\_state
- duk\_uint32\_t sym\_counter [2]
- **duk\_hstring** \*\* strtable
- duk\_uint32\_t st\_size
- duk\_uint32\_t st\_used
- **duk\_strcache** strcache [DUK\_HEAP\_STRCACHE\_SIZE]
- **duk\_hstring** \* strs [DUK\_HEAP\_NUM\_STRINGS]

#### 4.277.1 Detailed Description

Definition at line 7751 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.278 duk\_heaphdr Struct Reference

### Data Fields

- duk\_uint32\_t h\_flags
- duk\_size\_t h\_refcount
- **duk\_heaphdr** \* h\_next
- **duk\_heaphdr** \* h\_prev

#### 4.278.1 Detailed Description

Definition at line 3787 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.279 duk\_heaphdr\_string Struct Reference

### Data Fields

- duk\_uint32\_t h\_flags
- duk\_size\_t h\_refcount

### 4.279.1 Detailed Description

Definition at line 3826 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.280 duk\_hnatfunc Struct Reference

### Data Fields

- **duk\_hobject** **obj**
- **duk\_c\_function** **func**
- **duk\_int16\_t** **nargs**
- **duk\_int16\_t** **magic**

### 4.280.1 Detailed Description

Definition at line 6474 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.281 duk\_hobject Struct Reference

### Data Fields

- **duk\_heaphdr** **hdr**
- **duk\_uint8\_t** \* **props**
- **duk\_hobject** \* **prototype**
- **duk\_uint32\_t** **e\_size**
- **duk\_uint32\_t** **e\_next**
- **duk\_uint32\_t** **a\_size**
- **duk\_uint32\_t** **h\_size**

### 4.281.1 Detailed Description

Definition at line 5969 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.282 duk\_hstring Struct Reference

### Data Fields

- **duk\_heaphdr\_string** **hdr**
- duk\_uint32\_t **hash**
- duk\_uarridx\_t **arridx**
- duk\_uint32\_t **blen**
- duk\_uint32\_t **clen**

### 4.282.1 Detailed Description

Definition at line 5165 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.283 duk\_hstring\_external Struct Reference

### Data Fields

- **duk\_hstring** **str**
- const duk\_uint8\_t \* **extdata**

### 4.283.1 Detailed Description

Definition at line 5216 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.284 duk\_hthread Struct Reference

### Data Fields

- **duk\_hobject** obj
- **duk\_instr\_t** \*\* ptr\_curr\_pc
- **duk\_heap** \* heap
- **duk\_uint8\_t** strict
- **duk\_uint8\_t** state
- **duk\_uint8\_t** unused1
- **duk\_uint8\_t** unused2
- **duk\_size\_t** valstack\_max
- **duk\_size\_t** callstack\_max
- **duk\_size\_t** catchstack\_max
- **duk\_tval** \* valstack
- **duk\_tval** \* valstack\_end
- **duk\_tval** \* valstack\_bottom
- **duk\_tval** \* valstack\_top
- **duk\_size\_t** valstack\_size
- **duk\_activation** \* callstack
- **duk\_size\_t** callstack\_size
- **duk\_size\_t** callstack\_top
- **duk\_size\_t** callstack\_preventcount
- **duk\_catcher** \* catchstack
- **duk\_size\_t** catchstack\_size
- **duk\_size\_t** catchstack\_top
- **duk\_hthread** \* resumer
- **duk\_compiler\_ctx** \* compile\_ctx
- **duk\_hobject** \* builtins [DUK\_NUM\_BUILTINS]
- **duk\_hstring** \*\* strs

### 4.284.1 Detailed Description

Definition at line 6907 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.285 duk\_internal\_thread\_state Struct Reference

### Data Fields

- **duk\_ljstate** lj
- **duk\_bool\_t** handling\_error
- **duk\_hthread** \* curr\_thread
- **duk\_int\_t** call\_recursion\_depth

### 4.285.1 Detailed Description

Definition at line 14932 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.286 duk\_ispec Struct Reference

### Data Fields

- duk\_small\_uint\_t t
- duk\_regconst\_t regconst
- duk\_idx\_t valstack\_idx

### 4.286.1 Detailed Description

Definition at line 3489 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.287 duk\_ivalue Struct Reference

### Data Fields

- duk\_small\_uint\_t t
- duk\_small\_uint\_t op
- duk\_ispec x1
- duk\_ispec x2

### 4.287.1 Detailed Description

Definition at line 3495 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.288 duk\_jmpbuf Struct Reference

### Data Fields

- DUK\_JMPBUF\_TYPE jb

### 4.288.1 Detailed Description

Definition at line 229 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.289 duk\_json\_dec\_ctx Struct Reference

### Data Fields

- **duk\_hthread** \* **thr**
- const duk\_uint8\_t \* **p**
- const duk\_uint8\_t \* **p\_start**
- const duk\_uint8\_t \* **p\_end**
- duk\_idx\_t **idx\_reviver**
- duk\_small\_uint\_t **flags**
- duk\_small\_uint\_t **flag\_ext\_custom**
- duk\_small\_uint\_t **flag\_ext\_compatible**
- duk\_small\_uint\_t **flag\_ext\_custom\_or\_compatible**
- duk\_int\_t **recursion\_depth**
- duk\_int\_t **recursion\_limit**

### 4.289.1 Detailed Description

Definition at line 9158 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.290 duk\_json\_enc\_ctx Struct Reference

### Data Fields

- **duk\_hthread** \* **thr**
- **duk\_bufwriter\_ctx** **bw**
- **duk\_hobject** \* **h\_replacer**
- **duk\_hstring** \* **h\_gap**
- duk\_idx\_t **idx\_proplist**
- duk\_idx\_t **idx\_loop**
- duk\_small\_uint\_t **flags**
- duk\_small\_uint\_t **flag\_ascii\_only**
- duk\_small\_uint\_t **flag\_avoid\_key\_quotes**
- duk\_small\_uint\_t **flag\_ext\_custom**
- duk\_small\_uint\_t **flag\_ext\_compatible**
- duk\_small\_uint\_t **flag\_ext\_custom\_or\_compatible**
- duk\_int\_t **recursion\_depth**
- duk\_int\_t **recursion\_limit**
- duk\_uint\_t **mask\_for\_undefined**
- duk\_small\_uint\_t **stridx\_custom\_undefined**
- duk\_small\_uint\_t **stridx\_custom\_nan**
- duk\_small\_uint\_t **stridx\_custom\_neginf**
- duk\_small\_uint\_t **stridx\_custom\_posinf**
- duk\_small\_uint\_t **stridx\_custom\_function**
- **duk\_hobject** \* **visiting** [DUK\_JSON\_ENC\_LOOPARRAY]

### 4.290.1 Detailed Description

Definition at line 9130 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.291 duk\_labelinfo Struct Reference

### Data Fields

- duk\_small\_uint\_t **flags**
- duk\_int\_t **label\_id**
- duk\_hstring \* **h\_label**
- duk\_int\_t **catch\_depth**
- duk\_int\_t **pc\_label**

### 4.291.1 Detailed Description

Definition at line 3534 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.292 duk\_lexer\_codepoint Struct Reference

### Data Fields

- duk\_codepoint\_t **codepoint**
- duk\_size\_t **offset**
- duk\_int\_t **line**

### 4.292.1 Detailed Description

Definition at line 3390 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.293 duk\_lexer\_ctx Struct Reference

### Data Fields

- **duk\_lexer\_codepoint** \* **window**
- **duk\_lexer\_codepoint** **buffer** [DUK\_LEXER\_BUFFER\_SIZE]
- **duk\_hthread** \* **thr**
- const duk\_uint8\_t \* **input**
- duk\_size\_t **input\_length**
- duk\_size\_t **input\_offset**
- duk\_int\_t **input\_line**
- duk\_idx\_t **slot1\_idx**
- duk\_idx\_t **slot2\_idx**
- duk\_idx\_t **buf\_idx**
- **duk\_hbuffer\_dynamic** \* **buf**
- **duk\_bufwriter\_ctx** **bw**
- duk\_int\_t **token\_count**
- duk\_int\_t **token\_limit**

### 4.293.1 Detailed Description

Definition at line 3397 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.294 duk\_lexer\_point Struct Reference

### Data Fields

- duk\_size\_t **offset**
- duk\_int\_t **line**

### 4.294.1 Detailed Description

Definition at line 3384 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c



## 4.295 duk\_ljstate Struct Reference

### Data Fields

- **duk\_jmpbuf** \* **jmpbuf\_ptr**
- duk\_small\_uint\_t **type**
- duk\_bool\_t **iserror**
- **duk\_tval** **value1**
- **duk\_tval** **value2**

### 4.295.1 Detailed Description

Definition at line 7716 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.296 duk\_memory\_functions Struct Reference

### Data Fields

- duk\_alloc\_function **alloc\_func**
- duk\_realloc\_function **realloc\_func**
- duk\_free\_function **free\_func**
- void \* **udata**

### 4.296.1 Detailed Description

Definition at line 217 of file duktape.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.h

## 4.297 duk\_number\_list\_entry Struct Reference

### Data Fields

- const char \* **key**
- duk\_double\_t **value**

### 4.297.1 Detailed Description

Definition at line 230 of file duktape.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.h

## 4.298 duk\_propaccessor Struct Reference

### Data Fields

- **duk\_hobject \* get**
- **duk\_hobject \* set**

### 4.298.1 Detailed Description

Definition at line 5943 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.299 duk\_propdesc Struct Reference

### Data Fields

- **duk\_small\_int\_t flags**
- **duk\_hobject \* get**
- **duk\_hobject \* set**
- **duk\_int\_t e\_idx**
- **duk\_int\_t h\_idx**
- **duk\_int\_t a\_idx**

### 4.299.1 Detailed Description

Definition at line 5957 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.300 duk\_propvalue Union Reference

### Data Fields

- **duk\_tval** v
- **duk\_propaccessor** a

### 4.300.1 Detailed Description

Definition at line 5948 of file duktape.c.

The documentation for this union was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.301 duk\_re\_compiler\_ctx Struct Reference

### Data Fields

- **duk\_hthread** \* thr
- duk\_uint32\_t **re\_flags**
- **duk\_lexer\_ctx** lex
- **duk\_re\_token** curr\_token
- **duk\_bufwriter\_ctx** bw
- duk\_uint32\_t **captures**
- duk\_uint32\_t **highest\_backref**
- duk\_uint32\_t **recursion\_depth**
- duk\_uint32\_t **recursion\_limit**
- duk\_uint32\_t **nranges**

### 4.301.1 Detailed Description

Definition at line 3733 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.302 duk\_re\_matcher\_ctx Struct Reference

### Data Fields

- **duk\_hthread** \* thr
- duk\_uint32\_t **re\_flags**
- const duk\_uint8\_t \* **input**
- const duk\_uint8\_t \* **input\_end**
- const duk\_uint8\_t \* **bytecode**
- const duk\_uint8\_t \* **bytecode\_end**
- const duk\_uint8\_t \*\* **saved**
- duk\_uint32\_t **nsaved**
- duk\_uint32\_t **recursion\_depth**
- duk\_uint32\_t **recursion\_limit**
- duk\_uint32\_t **steps\_count**
- duk\_uint32\_t **steps\_limit**

### 4.302.1 Detailed Description

Definition at line 3717 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.303 duk\_re\_token Struct Reference

### Data Fields

- duk\_small\_int\_t **t**
- duk\_small\_int\_t **greedy**
- duk\_uint\_fast32\_t **num**
- duk\_uint\_fast32\_t **qmin**
- duk\_uint\_fast32\_t **qmax**

### 4.303.1 Detailed Description

Definition at line 3375 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.304 duk\_strcache Struct Reference

### Data Fields

- duk\_hstring \* **h**
- duk\_uint32\_t **bidx**
- duk\_uint32\_t **cidx**

### 4.304.1 Detailed Description

Definition at line 7705 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.305 duk\_strtab\_entry Struct Reference

### Data Fields

- duk\_size\_t **listlen**
- union {  
    duk\_hstring \*\* **strlist**  
    duk\_hstring \* **str**  
} **u**

### 4.305.1 Detailed Description

Definition at line 7728 of file duktape.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.c

## 4.306 duk\_thread\_state Struct Reference

### Data Fields

- char **data** [128]

### 4.306.1 Detailed Description

Definition at line 209 of file duktape.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/duktape/duktape.h

## 4.307 duk\_time\_components Struct Reference

### Data Fields

- duk\_double\_t **year**
- duk\_double\_t **month**
- duk\_double\_t **day**
- duk\_double\_t **hours**
- duk\_double\_t **minutes**
- duk\_double\_t **seconds**
- duk\_double\_t **milliseconds**
- duk\_double\_t **weekday**

### 4.307.1 Detailed Description

Definition at line 235 of file duktape.h.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/duktape/duktape.h`

## 4.308 duk\_token Struct Reference

### Data Fields

- `duk_small_int_t t`
- `duk_small_int_t t_nores`
- `duk_double_t num`
- `duk_hstring * str1`
- `duk_hstring * str2`
- `duk_size_t start_offset`
- `duk_int_t start_line`
- `duk_int_t num_escapes`
- `duk_bool_t lineterm`
- `duk_bool_t allow_auto_semi`

### 4.308.1 Detailed Description

Definition at line 3359 of file duktape.c.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/duktape/duktape.c`

## 4.309 duk\_tval\_unused Struct Reference

### Data Fields

- `duk_uint16_t a`
- `duk_uint16_t b`
- `duk_uint16_t c`
- `duk_uint16_t d`

### 4.309.1 Detailed Description

Definition at line 415 of file duktape.c.

The documentation for this struct was generated from the following file:

- `src/lib/world_script/duktape/duktape.c`

## 4.310 EAI\_Extra\_Data Struct Reference

### Data Fields

- int **field\_id**
- int **node\_id**
- int **field\_type**
- int **listener\_id**

### 4.310.1 Detailed Description

Definition at line 76 of file EAIHeaders.h.

The documentation for this struct was generated from the following file:

- src/lib/input/EAIHeaders.h

## 4.311 EAI\_ListenerStruct Struct Reference

### Data Fields

- int **FreeWRL\_RegisterNumber**
- int **type**
- int **datasize**
- void \* **dataArea**
- void \* **arg**
- void(\* **functionHandler** )( X3DNode \*, double, void \*arg)

### 4.311.1 Detailed Description

Definition at line 11 of file EAI\_C\_Advise.c.

The documentation for this struct was generated from the following file:

- src/libeai/EAI\_C\_Advise.c

## 4.312 vrml.external.FreeWRL\_EAI\_EAIAsyncMessage Class Reference

### Data Fields

- String **value**
- int **EventNumber**
- EAIAsyncMessage **prev**
- EAIAsyncMessage **next**

### 4.312.1 Detailed Description

Definition at line 20 of file `EAIAsyncMessage.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/FreeWRLEAI/EAIAsyncMessage.java`

## 4.313 `sai.eai.EAIAsyncMessage` Class Reference

### Data Fields

- String **value**
- int **EventNumber**
- **EAIAsyncMessage** **prev**
- **EAIAsyncMessage** **next**

### 4.313.1 Detailed Description

Definition at line 20 of file `EAIAsyncMessage.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/eai/EAIAsyncMessage.java`

## 4.314 `vrml.external.FreeWRLEAI.EAIAsyncQueue` Class Reference

### Public Member Functions

- synchronized void **enqueue** ( **EAIAsyncMessage** msg)
- synchronized **EAIAsyncMessage** **dequeue** ()
- boolean **isEmpty** ()

### 4.314.1 Detailed Description

Definition at line 20 of file `EAIAsyncQueue.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/FreeWRLEAI/EAIAsyncQueue.java`



## 4.315 sai.eai.EAIAsyncQueue Class Reference

### Public Member Functions

- synchronized void **enqueue** ( **EAIAsyncMessage** msg)
- synchronized **EAIAsyncMessage** **dequeue** ()
- boolean **isEmpty** ()

### 4.315.1 Detailed Description

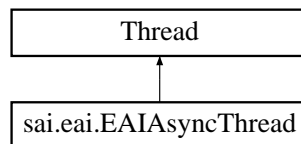
Definition at line 20 of file EAIAsyncQueue.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/EAIAsyncQueue.java

## 4.316 sai.eai.EAIAsyncThread Class Reference

Inheritance diagram for sai.eai.EAIAsyncThread:



### Public Member Functions

- void **run** ()
- synchronized void **send** (String eaistring, int indx)
- synchronized void **stopThread** ()

### 4.316.1 Detailed Description

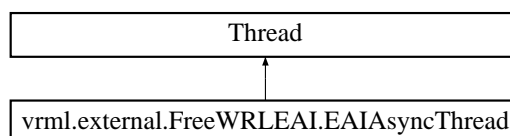
Definition at line 36 of file EAIAsyncThread.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/EAIAsyncThread.java

## 4.317 vrml.external.FreeWRLEAI.EAIAsyncThread Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.EAIAsyncThread:



## Public Member Functions

- void **run** ()
- synchronized void **send** (String eaistring, int indx)
- synchronized void **stopThread** ()

### 4.317.1 Detailed Description

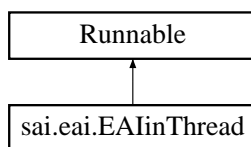
Definition at line 34 of file EAIAsyncThread.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/EAIAsyncThread.java

## 4.318 sai.eai.EAIinThread Class Reference

Inheritance diagram for sai.eai.EAIinThread:



## Public Member Functions

- **EAIinThread** (Socket s, Applet d, PrintWriter pwtoBrowserjava, **BrowserInterface** me)
- void **run** ()

### 4.318.1 Detailed Description

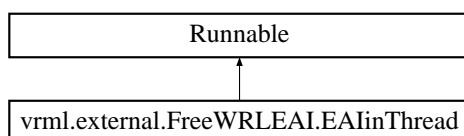
Definition at line 12 of file EAIinThread.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/EAIinThread.java

## 4.319 vrml.external.FreeWRLEAI.EAIinThread Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.EAIinThread:



## Public Member Functions

- **EAlinThread** (Socket s, Applet d, PrintWriter pwtoBrowserjava, **Browser** me)
- void **run** ()

### 4.319.1 Detailed Description

Definition at line 13 of file EAlinThread.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/EAlinThread.java

## 4.320 sai.eai.EAIMessage Class Reference

## Public Member Functions

- **EAIMessage** (String thismsg)

## Data Fields

- String **mmm**
- **EAIMessage** **prev**
- **EAIMessage** **next**

### 4.320.1 Detailed Description

Definition at line 20 of file EAIMessage.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/EAIMessage.java

## 4.321 vrml.external.FreeWRLEAI.EAIMessage Class Reference

## Public Member Functions

- **EAIMessage** (String thismsg)

## Data Fields

- String **mmm**
- **EAIMessage** **prev**
- **EAIMessage** **next**

### 4.321.1 Detailed Description

Definition at line 20 of file EAIMessage.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/EAIMessage.java

## 4.322 EAINodeIndexStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **actualNodePtr**
- int **nodeType**
- struct **Vector** \* **nodeParams**

### 4.322.1 Detailed Description

Definition at line 141 of file EAIHelpers.c.

The documentation for this struct was generated from the following file:

- src/lib/input/EAIHelpers.c

## 4.323 EAINodeParams Struct Reference

### Data Fields

- struct **X3D\_Node** \* **thisFieldNodePointer**
- int **fieldOffset**
- int **datalen**
- int **typeString**
- int **scripttype**
- char \* **invokedPROTOValue**

### 4.323.1 Detailed Description

Definition at line 132 of file EAIHelpers.c.

The documentation for this struct was generated from the following file:

- src/lib/input/EAIHelpers.c

## 4.324 sai.eai.EAloutQueue Class Reference

### Public Member Functions

- synchronized void **enqueue** ( **EAIMessage** msg)
- synchronized **EAIMessage dequeue** ()
- boolean **isEmpty** ()

#### 4.324.1 Detailed Description

Definition at line 21 of file EAloutQueue.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/EAloutQueue.java

## 4.325 vrml.external.FreeWRLEAI.EAloutQueue Class Reference

### Public Member Functions

- synchronized void **enqueue** ( **EAIMessage** msg)
- synchronized **EAIMessage dequeue** ()
- boolean **isEmpty** ()

#### 4.325.1 Detailed Description

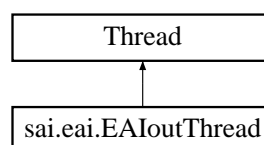
Definition at line 21 of file EAloutQueue.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/EAloutQueue.java

## 4.326 sai.eai.EAloutThread Class Reference

Inheritance diagram for sai.eai.EAloutThread:



## Public Member Functions

- **EAloutThread** (PrintWriter output)
- void **run** ()
- synchronized void **send** (String eaistring)
- synchronized void **stopThread** ()

### 4.326.1 Detailed Description

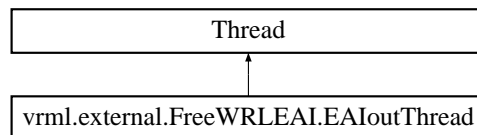
Definition at line 33 of file EAloutThread.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/EAloutThread.java

## 4.327 vrml.external.FreeWRLEAI.EAloutThread Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.EAloutThread:



## Public Member Functions

- **EAloutThread** (PrintWriter output)
- void **run** ()
- synchronized void **send** (String eaistring)
- synchronized void **stopThread** ()

### 4.327.1 Detailed Description

Definition at line 33 of file EAloutThread.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/EAloutThread.java

## 4.328 EdgePair Struct Reference

### Data Fields

- GLUhalfEdge **e**
- GLUhalfEdge **eSym**

### 4.328.1 Detailed Description

Definition at line 59 of file mesh.c.

The documentation for this struct was generated from the following files:

- src/libtess/mesh.c
- src/libtess/tess.c

## 4.329 EightByteChunk Struct Reference

### Data Fields

- char **otherParameters** [8]  
*Eight bytes of arbitrary data.*

### 4.329.1 Detailed Description

Definition at line 274 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.330 ElectronicEmissionBeamData Struct Reference

### Data Fields

- unsigned char **beamDataLength**  
*This field shall specify the length of this beams data in 32 bit words.*
- unsigned char **beamIDNumber**  
*This field shall specify a unique emitter database number assigned to differentiate between otherwise similar or identical emitter beams within an emitter system.*
- unsigned short **beamParameterIndex**  
*This field shall specify a Beam Parameter Index number that shall be used by receiving entities in conjunction with the Emitter Name field to provide a pointer to the stored database parameters required to regenerate the beam.*
- struct **FundamentalParameterData** **fundamentalParameterData**  
*Fundamental parameter data such as frequency range, beam sweep, etc.*
- unsigned char **beamFunction**  
*beam function of a particular beam*
- unsigned char **numberOfTrackJamTargets**  
*Number of track/jam targets.*
- unsigned char **highDensityTrackJam**  
*whether or not the receiving simulation apps can assume all the targets in the scan pattern are being tracked/jammed*
- unsigned char **pad4**  
*padding*
- unsigned int **jammingModeSequence**  
*identify jamming techniques used*
- void \* **trackJamTargets**  
*variable length list of track/jam targets*

### 4.330.1 Detailed Description

Definition at line 676 of file DIS.h.

### 4.330.2 Field Documentation

#### 4.330.2.1 beamParameterIndex

```
unsigned short ElectronicEmissionBeamData::beamParameterIndex
```

This field shall specify a Beam Parameter Index number that shall be used by receiving entities in conjunction with the Emitter Name field to provide a pointer to the stored database parameters required to regenerate the beam.

Definition at line 682 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.331 ElectronicEmissionsPdu Struct Reference

### Data Fields

- struct **DistributedEmissionsFamilyPdu** myDistributedEmissionsFamilyPdu
- struct **EntityID** emittingEntityID  
*ID of the entity emitting.*
- struct **EventID** eventID  
*ID of event.*
- unsigned char **stateUpdateIndicator**  
*This field shall be used to indicate if the data in the PDU represents a state update or just data that has changed since issuance of the last Electromagnetic Emission PDU [relative to the identified entity and emission system(s)].*
- unsigned char **numberOfSystems**  
*This field shall specify the number of emission systems being described in the current PDU.*
- unsigned short **paddingForEmissionsPdu**  
*padding*
- void \* **systems**  
*Electronic emissions systems.*

### 4.331.1 Detailed Description

Definition at line 1283 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h



## 4.332 ElectronicEmissionSystemData Struct Reference

### Data Fields

- unsigned char **systemDataLength**  
*This field shall specify the length of this emitter system's data (including beam data and its track/jam information) in 32-bit words.*
- unsigned char **numberOfBeams**  
*This field shall specify the number of beams being described in the current PDU for the system being described.*
- unsigned short **emissionsPadding2**  
*padding.*
- struct **EmitterSystem emitterSystem**  
*This field shall specify information about a particular emitter system.*
- struct **Vector3Float location**  
*Location with respect to the entity.*
- void \* **beamDataRecords**  
*variable length list of beam data records*

### 4.332.1 Detailed Description

Definition at line 1003 of file DIS.h.

### 4.332.2 Field Documentation

#### 4.332.2.1 numberOfBeams

```
unsigned char ElectronicEmissionSystemData::numberOfBeams
```

This field shall specify the number of beams being described in the current PDU for the system being described.

Definition at line 1007 of file DIS.h.

#### 4.332.2.2 systemDataLength

```
unsigned char ElectronicEmissionSystemData::systemDataLength
```

This field shall specify the length of this emitter system's data (including beam data and its track/jam information) in 32-bit words.

The length shall include the System Data Length field.

Definition at line 1005 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.333 ellipsoid Struct Reference

### Data Fields

- double **a**
- double **b**
- double **f**

### 4.333.1 Detailed Description

Definition at line 409 of file Component\_Geospatial.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geospatial.c

## 4.334 EmitterSystem Struct Reference

### Data Fields

- unsigned short **emitterName**  
*Name of the emitter, 16 bit enumeration.*
- unsigned char **function**  
*function of the emitter, 8 bit enumeration*
- unsigned char **emitterIdNumber**  
*emitter ID, 8 bit enumeration*

### 4.334.1 Detailed Description

Definition at line 658 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.335 EntityID Struct Reference

### Data Fields

- unsigned short **site**  
*The site ID.*
- unsigned short **application**  
*The application ID.*
- unsigned short **entity**  
*the entity ID*

### 4.335.1 Detailed Description

Definition at line 571 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.336 EntityInformationFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** myPdu

### 4.336.1 Detailed Description

Definition at line 1497 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.337 EntityManagementFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** myPdu

### 4.337.1 Detailed Description

Definition at line 1214 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.338 EntityStatePdu Struct Reference

### Data Fields

- struct **EntityInformationFamilyPdu** **myEntityInformationFamilyPdu**
- struct **EntityID** **entityID**  
*Unique ID for an entity that is tied to this state information.*
- unsigned char **forceld**  
*What force this entity is affiliated with, eg red, blue, neutral, etc.*
- char **numberOfArticulationParameters**  
*How many articulation parameters are in the variable length list.*
- struct **EntityType** **entityType**  
*Describes the type of entity in the world.*
- struct **EntityType** **alternativeEntityType**
- struct **Vector3Float** **entityLinearVelocity**  
*Describes the speed of the entity in the world.*
- struct **Vector3Double** **entityLocation**  
*describes the location of the entity in the world*
- struct **Orientation** **entityOrientation**  
*describes the orientation of the entity, in euler angles*
- int **entityAppearance**  
*a series of bit flags that are used to help draw the entity, such as smoking, on fire, etc.*
- struct **DeadReckoningParameter** **deadReckoningParameters**  
*parameters used for dead reckoning*
- struct **Marking** **marking**  
*characters that can be used for debugging, or to draw unique strings on the side of entities in the world*
- int **capabilities**  
*a series of bit flags*
- void \* **articulationParameters**  
*variable length list of articulation parameters*

### 4.338.1 Detailed Description

Definition at line 2133 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.339 EntityStateUpdatePdu Struct Reference

### Data Fields

- struct **EntityInformationFamilyPdu** **myEntityInformationFamilyPdu**
- struct **EntityID** **entityID**  
*This field shall identify the entity issuing the PDU.*
- char **padding1**  
*Padding.*
- unsigned char **numberOfArticulationParameters**  
*How many articulation parameters are in the variable length list.*
- struct **Vector3Float** **entityLinearVelocity**  
*Describes the speed of the entity in the world.*
- struct **Vector3Double** **entityLocation**  
*describes the location of the entity in the world*
- struct **Orientation** **entityOrientation**  
*describes the orientation of the entity, in euler angles*
- int **entityAppearance**  
*a series of bit flags that are used to help draw the entity, such as smoking, on fire, etc.*
- void \* **articulationParameters**

### 4.339.1 Detailed Description

Definition at line 1640 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.340 EntityType Struct Reference

### Data Fields

- unsigned char **entityKind**  
*Kind of entity.*
- unsigned char **domain**  
*Domain of entity (air, surface, subsurface, space, etc)*
- unsigned short **country**  
*country to which the design of the entity is attributed*
- unsigned char **category**  
*category of entity*
- unsigned char **subcategory**  
*subcategory of entity*
- unsigned char **specific**  
*specific info based on subcategory field*
- unsigned char **extra**

### 4.340.1 Detailed Description

Definition at line 478 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.341 Environment Struct Reference

### Data Fields

- unsigned int **environmentType**  
*Record type.*
- unsigned char **length**  
*length, in bits*
- unsigned char **index**  
*Identify the sequentially numbered record index.*
- unsigned char **padding1**  
*padding*
- unsigned char **geometry**  
*Geometry or state record.*
- unsigned char **padding2**  
*padding to bring the total size up to a 64 bit boundry*

### 4.341.1 Detailed Description

Definition at line 527 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.342 EnvironmentalProcessPdu Struct Reference

### Data Fields

- struct **SyntheticEnvironmentFamilyPdu** mySyntheticEnvironmentFamilyPdu
- struct **EntityID** environmentalProcessID  
*Environmental process ID.*
- struct **EntityType** environmentType  
***Environment** (p. 234) type.*
- unsigned char **modelType**  
*model type*
- unsigned char **environmentStatus**  
***Environment** (p. 234) status.*
- unsigned char **numberOfEnvironmentRecords**  
*number of environment records*
- unsigned short **sequenceNumber**  
*PDU sequence number for the environmentla process if pdu sequencing required.*
- void \* **environmentRecords**  
*environemt records*

### 4.342.1 Detailed Description

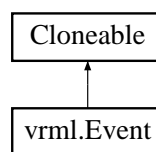
Definition at line 1388 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.343 vrml.Event Class Reference

Inheritance diagram for vrml.Event:



### Public Member Functions

- **Event** (String name2, double timestamp2, **ConstField** value2)
- String **getName** ()
- double **getTimeStamp** ()
- **ConstField** **getValue** ()
- Object **clone** ()
- String **toString** ()

### 4.343.1 Detailed Description

Definition at line 4 of file Event.java.

The documentation for this class was generated from the following file:

- src/java/vrml/Event.java

## 4.344 EventID Struct Reference

### Data Fields

- unsigned short **site**  
*The site ID.*
- unsigned short **application**  
*The application ID.*
- unsigned short **eventNumber**  
*the number of the event*

### 4.344.1 Detailed Description

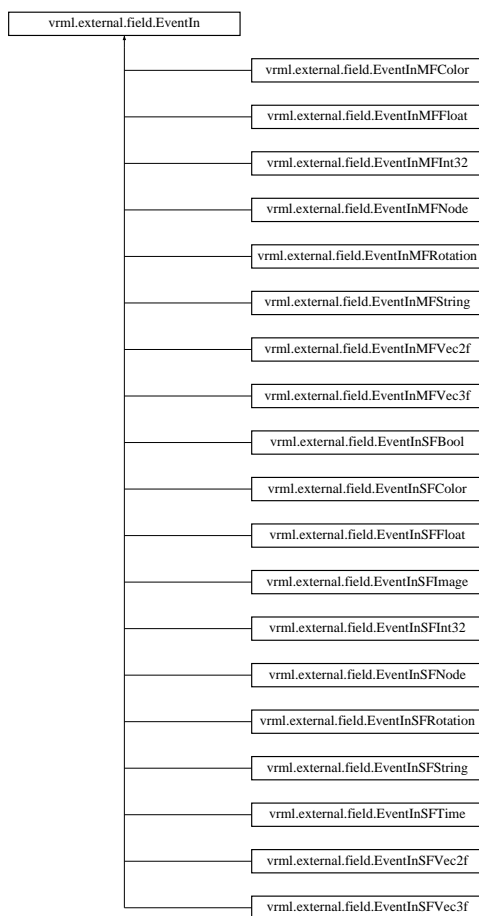
Definition at line 222 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.345 vrml.external.field.EventIn Class Reference

Inheritance diagram for vrml.external.field.EventIn:



### Public Member Functions

- int **getIntType** ()
- int **getType** ()

### Data Fields

- String **command**
- String **inNode**
- int **datasize** = 0
- int **nodeptr** = 0
- int **offset** = 0
- int **ScriptType** = 0
- String **datatype**



### 4.345.1 Detailed Description

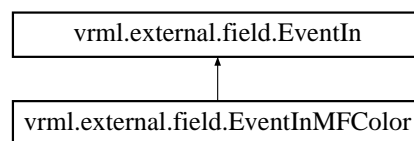
Definition at line 5 of file EventIn.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventIn.java

## 4.346 vrml.external.field.EventInMFCOLOR Class Reference

Inheritance diagram for vrml.external.field.EventInMFCOLOR:



### Public Member Functions

- void **setValue** (float[ ][ ] value) throws IllegalArgumentException
- void **set1Value** (int index, float[ ] value) throws IllegalArgumentException

### Additional Inherited Members

### 4.346.1 Detailed Description

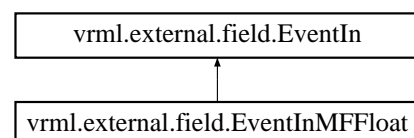
Definition at line 6 of file EventInMFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInMFCOLOR.java

## 4.347 vrml.external.field.EventInMFFLOAT Class Reference

Inheritance diagram for vrml.external.field.EventInMFFLOAT:



## Public Member Functions

- void **setValue** (float[] value) throws IllegalArgumentException
- void **set1Value** (int index, float value) throws IllegalArgumentException

## Additional Inherited Members

### 4.347.1 Detailed Description

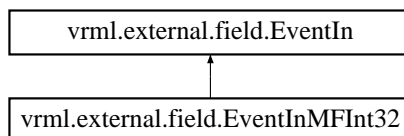
Definition at line 6 of file EventInMFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInMFFloat.java

## 4.348 vrml.external.field.EventInMFInt32 Class Reference

Inheritance diagram for vrml.external.field.EventInMFInt32:



## Public Member Functions

- void **setValue** (int value[]) throws IllegalArgumentException
- void **set1Value** (int index, int value) throws IllegalArgumentException

## Additional Inherited Members

### 4.348.1 Detailed Description

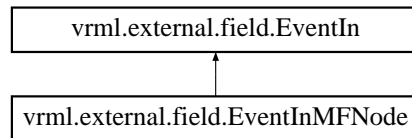
Definition at line 6 of file EventInMFInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInMFInt32.java

## 4.349 vrml.external.field.EventInMFNode Class Reference

Inheritance diagram for vrml.external.field.EventInMFNode:



### Public Member Functions

- void **setValue** ( **Node**[] node) throws `IllegalArgumentException`
- void **set1Value** (int index, **Node** node) throws `IllegalArgumentException`

### Additional Inherited Members

#### 4.349.1 Detailed Description

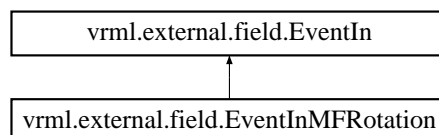
Definition at line 6 of file `EventInMFNode.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventInMFNode.java`

## 4.350 vrml.external.field.EventInMFRotation Class Reference

Inheritance diagram for vrml.external.field.EventInMFRotation:



### Public Member Functions

- void **setValue** (float[] [] value) throws `IllegalArgumentException`
- void **set1Value** (int index, float[] value) throws `IllegalArgumentException`

### Additional Inherited Members

#### 4.350.1 Detailed Description

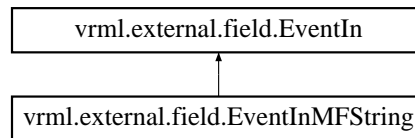
Definition at line 6 of file `EventInMFRotation.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventInMFRotation.java`

## 4.351 vrml.external.field.EventInMFString Class Reference

Inheritance diagram for vrml.external.field.EventInMFString:



### Public Member Functions

- void **setValue** (String[] value) throws IllegalArgumentException
- void **set1Value** (int index, String value) throws IllegalArgumentException

### Additional Inherited Members

#### 4.351.1 Detailed Description

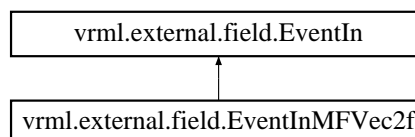
Definition at line 5 of file `EventInMFString.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventInMFString.java`

## 4.352 vrml.external.field.EventInMFVec2f Class Reference

Inheritance diagram for vrml.external.field.EventInMFVec2f:



### Public Member Functions

- void **setValue** (float[][] value) throws IllegalArgumentException
- void **set1Value** (int index, float value[]) throws IllegalArgumentException

### Additional Inherited Members

#### 4.352.1 Detailed Description

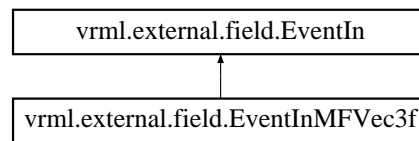
Definition at line 6 of file `EventInMFVec2f.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventInMFVec2f.java`

## 4.353 vrml.external.field.EventInMFVec3f Class Reference

Inheritance diagram for vrml.external.field.EventInMFVec3f:



### Public Member Functions

- void **setValue** (float[] value) throws IllegalArgumentException
- void **set1Value** (int index, float[] value) throws IllegalArgumentException

### Additional Inherited Members

#### 4.353.1 Detailed Description

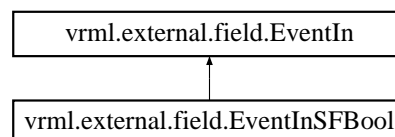
Definition at line 6 of file `EventInMFVec3f.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventInMFVec3f.java`

## 4.354 vrml.external.field.EventInSFBool Class Reference

Inheritance diagram for vrml.external.field.EventInSFBool:



### Public Member Functions

- void **setValue** (boolean value)

### Additional Inherited Members

#### 4.354.1 Detailed Description

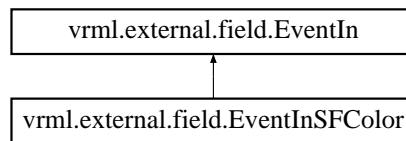
Definition at line 5 of file `EventInSFBool.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventInSFBool.java`

## 4.355 vrml.external.field.EventInSFCOLOR Class Reference

Inheritance diagram for vrml.external.field.EventInSFCOLOR:



### Public Member Functions

- void **setValue** (float[] value) throws IllegalArgumentException

### Additional Inherited Members

#### 4.355.1 Detailed Description

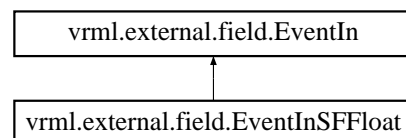
Definition at line 5 of file EventInSFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFCOLOR.java

## 4.356 vrml.external.field.EventInSFFloat Class Reference

Inheritance diagram for vrml.external.field.EventInSFFloat:



### Public Member Functions

- void **setValue** (float value)

### Additional Inherited Members

#### 4.356.1 Detailed Description

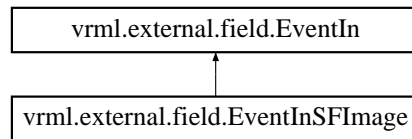
Definition at line 5 of file EventInSFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFFloat.java

## 4.357 vrml.external.field.EventInSFImage Class Reference

Inheritance diagram for vrml.external.field.EventInSFImage:



### Public Member Functions

- void **setValue** (int width, int height, int components, byte[] pixels) throws IllegalArgumentException

### Additional Inherited Members

#### 4.357.1 Detailed Description

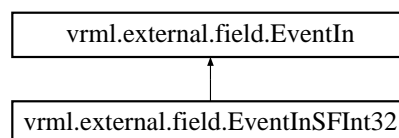
Definition at line 7 of file EventInSFImage.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFImage.java

## 4.358 vrml.external.field.EventInSFInt32 Class Reference

Inheritance diagram for vrml.external.field.EventInSFInt32:



### Public Member Functions

- void **setValue** (Integer value)
- void **setValue** (int value)

### Additional Inherited Members

#### 4.358.1 Detailed Description

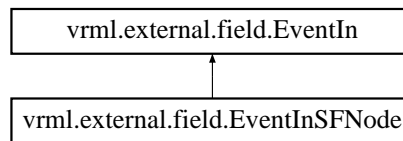
Definition at line 6 of file EventInSFInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFInt32.java

## 4.359 vrml.external.field.EventInSFNode Class Reference

Inheritance diagram for vrml.external.field.EventInSFNode:



### Public Member Functions

- void **setValue** ( **Node** node)

### Additional Inherited Members

#### 4.359.1 Detailed Description

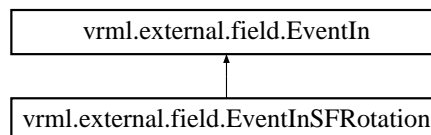
Definition at line 6 of file EventInSFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFNode.java

## 4.360 vrml.external.field.EventInSFRotation Class Reference

Inheritance diagram for vrml.external.field.EventInSFRotation:



### Public Member Functions

- void **setValue** (float[] value) throws IllegalArgumentException

### Additional Inherited Members

#### 4.360.1 Detailed Description

Definition at line 5 of file EventInSFRotation.java.

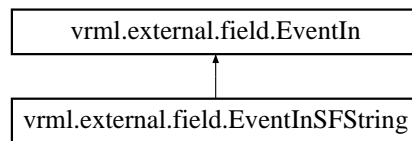
The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFRotation.java



## 4.361 vrml.external.field.EventInSFString Class Reference

Inheritance diagram for vrml.external.field.EventInSFString:



### Public Member Functions

- void **setValue** (String value)

### Additional Inherited Members

#### 4.361.1 Detailed Description

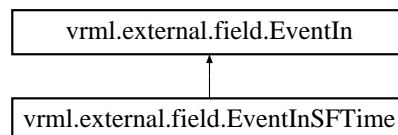
Definition at line 6 of file EventInSFString.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFString.java

## 4.362 vrml.external.field.EventInSFTIME Class Reference

Inheritance diagram for vrml.external.field.EventInSFTIME:



### Public Member Functions

- void **setValue** (double value)

### Additional Inherited Members

#### 4.362.1 Detailed Description

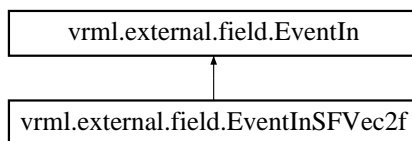
Definition at line 6 of file EventInSFTIME.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFTIME.java

## 4.363 vrml.external.field.EventInSFVec2f Class Reference

Inheritance diagram for vrml.external.field.EventInSFVec2f:



### Public Member Functions

- void **setValue** (float[] value) throws IllegalArgumentException

### Additional Inherited Members

#### 4.363.1 Detailed Description

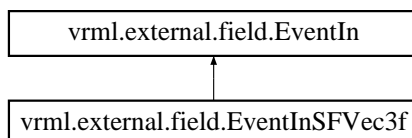
Definition at line 5 of file EventInSFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFVec2f.java

## 4.364 vrml.external.field.EventInSFVec3f Class Reference

Inheritance diagram for vrml.external.field.EventInSFVec3f:



### Public Member Functions

- void **setValue** (float[] value) throws IllegalArgumentException

### Additional Inherited Members

#### 4.364.1 Detailed Description

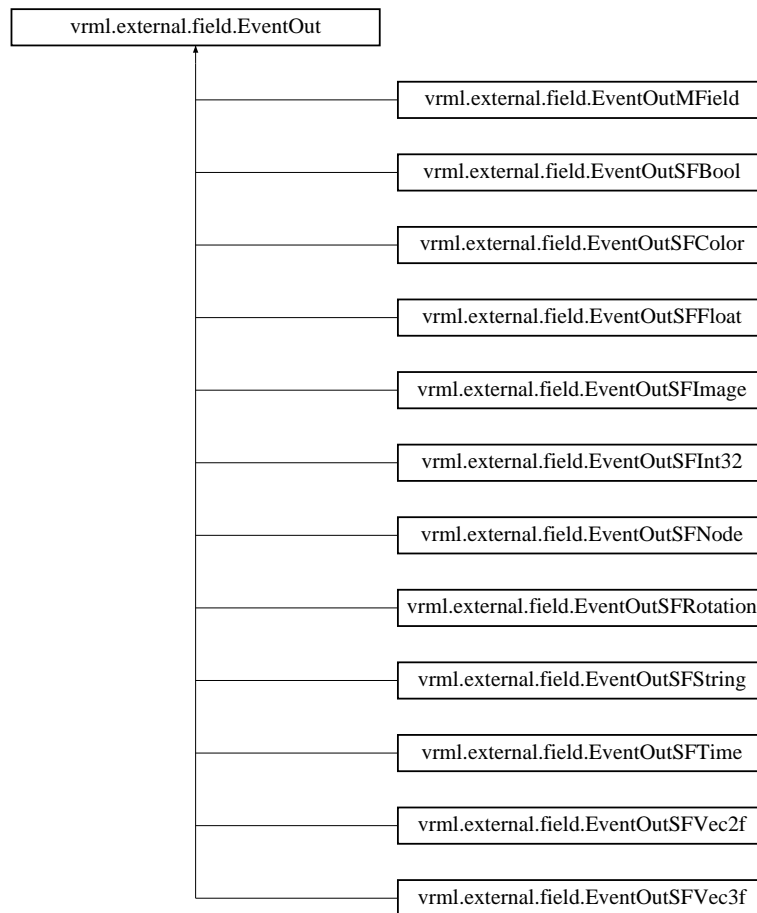
Definition at line 5 of file EventInSFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFVec3f.java

## 4.365 vrml.external.field.EventOut Class Reference

Inheritance diagram for vrml.external.field.EventOut:



### Public Member Functions

- int **getType** ()
- int **getIntType** ()
- void **advise** ( **EventOutObserver** f, Object userData)
- void **unadvise** ( **EventOutObserver** f)

### Data Fields

- int **EventType** = FieldTypes.UnknownType
- String **inNode**
- String **RLreturn**
- String **command**
- int **nodeptr** = 0
- int **offset** = 0
- int **datasize** = 0
- String **datatype**
- int **ScriptType** = 0

### 4.365.1 Detailed Description

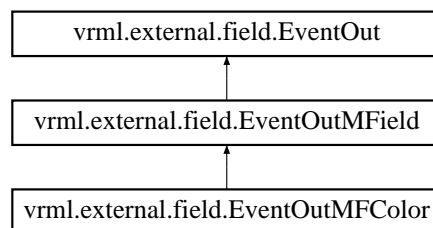
Definition at line 6 of file EventOut.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOut.java

## 4.366 vrml.external.field.EventOutMFCOLOR Class Reference

Inheritance diagram for vrml.external.field.EventOutMFCOLOR:



### Public Member Functions

- float[ ][ ] **getValue** ()
- float[ ] **get1Value** (int index)

### Additional Inherited Members

### 4.366.1 Detailed Description

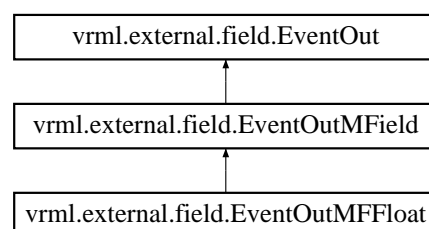
Definition at line 8 of file EventOutMFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFCOLOR.java

## 4.367 vrml.external.field.EventOutMFFloat Class Reference

Inheritance diagram for vrml.external.field.EventOutMFFloat:



## Public Member Functions

- float[] **getValue** ()
- float **get1Value** (int index)

## Additional Inherited Members

### 4.367.1 Detailed Description

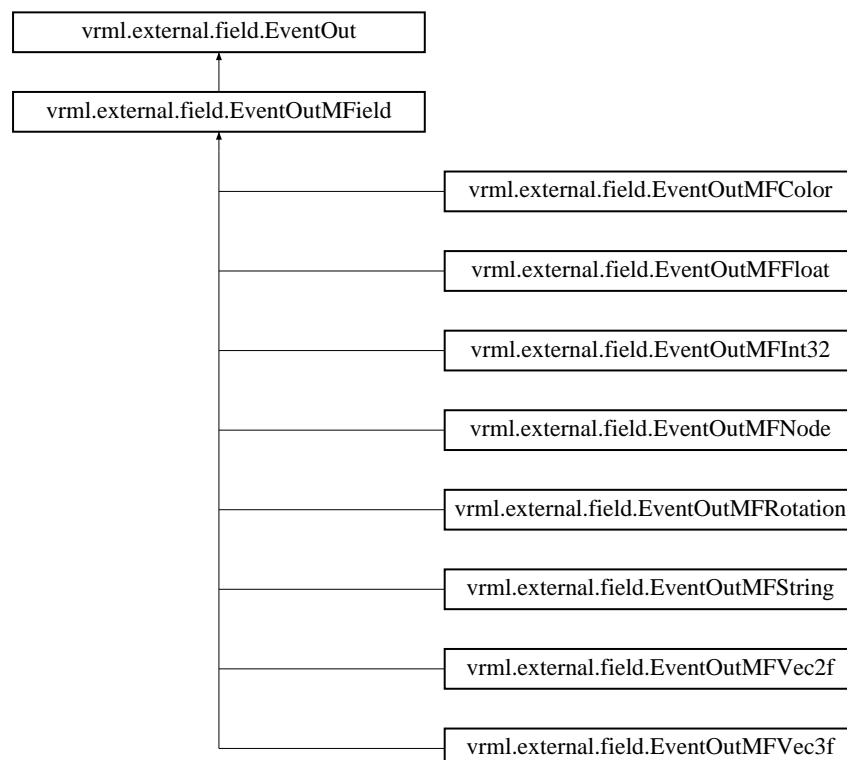
Definition at line 8 of file EventOutMFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFFloat.java

## 4.368 vrml.external.field.EventOutMField Class Reference

Inheritance diagram for vrml.external.field.EventOutMField:



## Public Member Functions

- int **getSize** ()

## Additional Inherited Members

### 4.368.1 Detailed Description

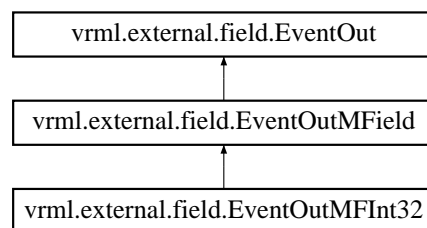
Definition at line 7 of file EventOutMField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMField.java

## 4.369 vrml.external.field.EventOutMField Class Reference

Inheritance diagram for vrml.external.field.EventOutMField:



## Public Member Functions

- int[] **getValue** ()
- int **get1Value** (int index)

## Additional Inherited Members

### 4.369.1 Detailed Description

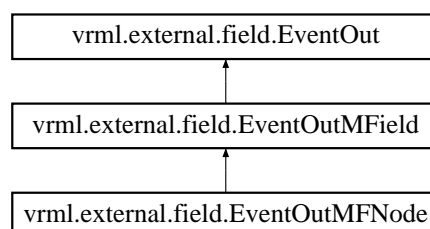
Definition at line 8 of file EventOutMFieldInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFieldInt32.java

## 4.370 vrml.external.field.EventOutMFNode Class Reference

Inheritance diagram for vrml.external.field.EventOutMFNode:



## Public Member Functions

- **Node[]** **getValue** ()
- **Node** **get1Value** (int index)

## Additional Inherited Members

### 4.370.1 Detailed Description

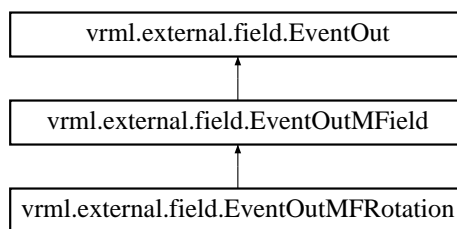
Definition at line 8 of file EventOutMFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFNode.java

## 4.371 vrml.external.field.EventOutMFRotation Class Reference

Inheritance diagram for vrml.external.field.EventOutMFRotation:



## Public Member Functions

- **float[] []** **getValue** ()
- **float[]** **get1Value** (int index)

## Additional Inherited Members

### 4.371.1 Detailed Description

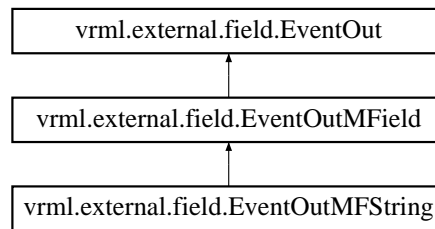
Definition at line 8 of file EventOutMFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFRotation.java

## 4.372 vrml.external.field.EventOutMFString Class Reference

Inheritance diagram for vrml.external.field.EventOutMFString:



### Public Member Functions

- `String[] getValue ()`
- `String get1Value (int index)`

### Additional Inherited Members

#### 4.372.1 Detailed Description

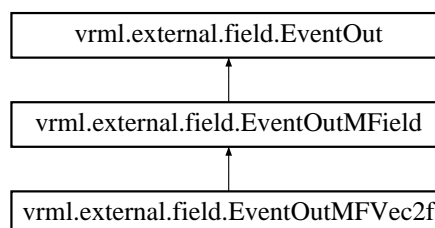
Definition at line 7 of file EventOutMFString.java.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/field/EventOutMFString.java`

## 4.373 vrml.external.field.EventOutMFVec2f Class Reference

Inheritance diagram for vrml.external.field.EventOutMFVec2f:



### Public Member Functions

- `float[][] getValue ()`
- `float[] get1Value (int index)`



## Additional Inherited Members

### 4.373.1 Detailed Description

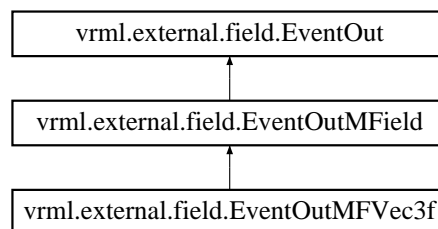
Definition at line 8 of file EventOutMFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFVec2f.java

## 4.374 vrml.external.field.EventOutMFVec3f Class Reference

Inheritance diagram for vrml.external.field.EventOutMFVec3f:



## Public Member Functions

- float[ ][ ] **getValue** ()
- float[ ] **get1Value** (int index)

## Additional Inherited Members

### 4.374.1 Detailed Description

Definition at line 8 of file EventOutMFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutMFVec3f.java

## 4.375 vrml.external.field.EventOutObserver Interface Reference

## Public Member Functions

- void **callback** ( **EventOut** value, double timeStamp, Object userData)

### 4.375.1 Detailed Description

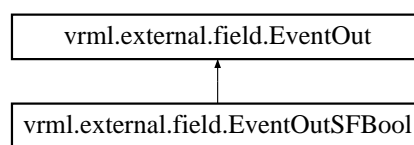
Definition at line 8 of file EventOutObserver.java.

The documentation for this interface was generated from the following file:

- src/java/vrml/external/field/EventOutObserver.java

## 4.376 vrml.external.field.EventOutSFBool Class Reference

Inheritance diagram for vrml.external.field.EventOutSFBool:



### Public Member Functions

- boolean **getValue** ()

### Additional Inherited Members

### 4.376.1 Detailed Description

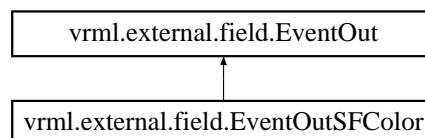
Definition at line 7 of file EventOutSFBool.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFBool.java

## 4.377 vrml.external.field.EventOutSFColor Class Reference

Inheritance diagram for vrml.external.field.EventOutSFColor:



### Public Member Functions

- float[] **getValue** ()

## Additional Inherited Members

### 4.377.1 Detailed Description

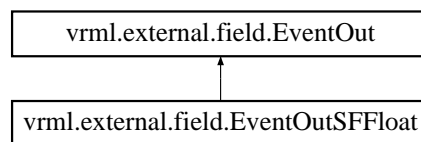
Definition at line 7 of file EventOutSFColor.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFColor.java

## 4.378 vrml.external.field.EventOutSFFloat Class Reference

Inheritance diagram for vrml.external.field.EventOutSFFloat:



## Public Member Functions

- float **getValue** ()

## Additional Inherited Members

### 4.378.1 Detailed Description

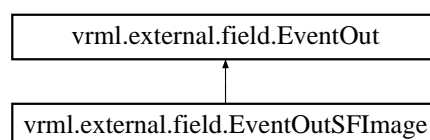
Definition at line 7 of file EventOutSFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFFloat.java

## 4.379 vrml.external.field.EventOutSFImage Class Reference

Inheritance diagram for vrml.external.field.EventOutSFImage:



## Public Member Functions

- int **getWidth** ()
- int **getHeight** ()
- int **getNumComponents** ()
- byte[] **getPixels** ()

## Additional Inherited Members

### 4.379.1 Detailed Description

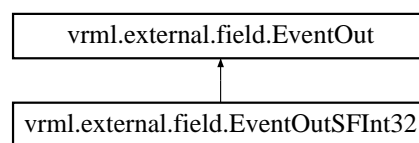
Definition at line 7 of file EventOutSFImage.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFImage.java

## 4.380 vrml.external.field.EventOutSFInt32 Class Reference

Inheritance diagram for vrml.external.field.EventOutSFInt32:



## Public Member Functions

- int **getValue** ()

## Additional Inherited Members

### 4.380.1 Detailed Description

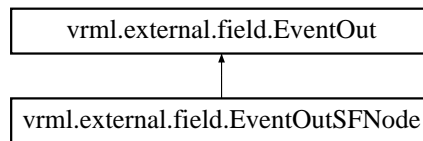
Definition at line 7 of file EventOutSFInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFInt32.java

## 4.381 vrml.external.field.EventOutSFNode Class Reference

Inheritance diagram for vrml.external.field.EventOutSFNode:



### Public Member Functions

- Node `getValue ()`

### Additional Inherited Members

#### 4.381.1 Detailed Description

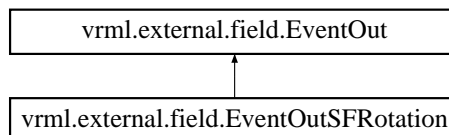
Definition at line 8 of file EventOutSFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFNode.java

## 4.382 vrml.external.field.EventOutSFRotation Class Reference

Inheritance diagram for vrml.external.field.EventOutSFRotation:



### Public Member Functions

- float[] `getValue ()`

### Additional Inherited Members

#### 4.382.1 Detailed Description

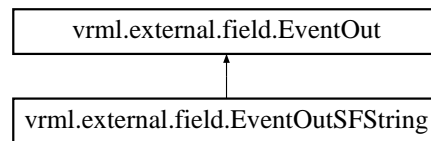
Definition at line 6 of file EventOutSFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFRotation.java

## 4.383 vrml.external.field.EventOutSFString Class Reference

Inheritance diagram for vrml.external.field.EventOutSFString:



### Public Member Functions

- String **getValue** ()

### Additional Inherited Members

#### 4.383.1 Detailed Description

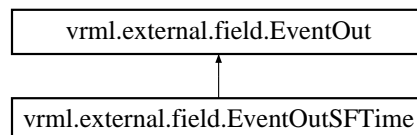
Definition at line 7 of file EventOutSFString.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFString.java

## 4.384 vrml.external.field.EventOutSFTIME Class Reference

Inheritance diagram for vrml.external.field.EventOutSFTIME:



### Public Member Functions

- double **getValue** ()

### Additional Inherited Members

#### 4.384.1 Detailed Description

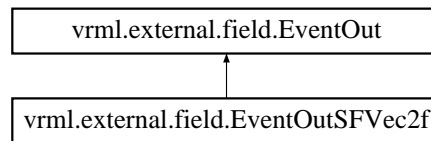
Definition at line 7 of file EventOutSFTIME.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFTIME.java

## 4.385 vrml.external.field.EventOutSFVec2f Class Reference

Inheritance diagram for vrml.external.field.EventOutSFVec2f:



### Public Member Functions

- float[ ] `getValue ()`

### Additional Inherited Members

#### 4.385.1 Detailed Description

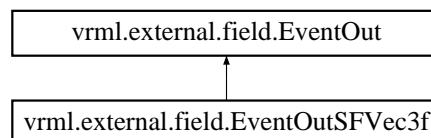
Definition at line 6 of file EventOutSFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFVec2f.java

## 4.386 vrml.external.field.EventOutSFVec3f Class Reference

Inheritance diagram for vrml.external.field.EventOutSFVec3f:



### Public Member Functions

- float[ ] `getValue ()`

### Additional Inherited Members

#### 4.386.1 Detailed Description

Definition at line 6 of file EventOutSFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventOutSFVec3f.java

## 4.387 EventReportPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** mySimulationManagementFamilyPdu
- unsigned int **eventType**  
*Type of event.*
- unsigned int **padding1**  
*padding*
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

### 4.387.1 Detailed Description

Definition at line 1342 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.388 EventReportReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** mySimulationManagementWithReliability↔  
**FamilyPdu**
- unsigned short **eventType**  
*Event type.*
- unsigned int **pad1**  
*padding*
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*



### 4.388.1 Detailed Description

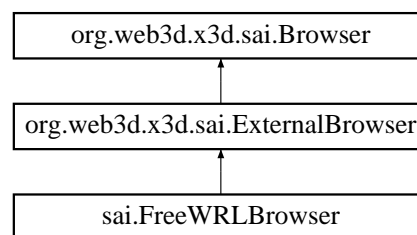
Definition at line 2007 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.389 org.web3d.x3d.sai.ExternalBrowser Interface Reference

Inheritance diagram for org.web3d.x3d.sai.ExternalBrowser:



### Public Member Functions

- void **addBrowserListener** ( **BrowserListener** listener) throws InvalidBrowserException
- void **removeBrowserListener** ( **BrowserListener** l) throws InvalidBrowserException
- void **beginUpdate** () throws InvalidBrowserException
- void **endUpdate** () throws InvalidBrowserException
- void **dispose** () throws InvalidOperationTimingException

### 4.389.1 Detailed Description

Definition at line 4 of file ExternalBrowser.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/ExternalBrowser.java

## 4.390 extrusion Struct Reference

### Data Fields

- **polygon** poly
- double **below**
- double **above**

### 4.390.1 Detailed Description

Definition at line 771 of file SSRServer.c.

The documentation for this struct was generated from the following file:

- src/SSR/SSRServer.c

## 4.391 FaceCount Struct Reference

### Data Fields

- long **size**
- **GLUhalfEdge** \* **eStart**
- void(\* **render** )( **GLUtesselator** \*, **GLUhalfEdge** \*, long)

### 4.391.1 Detailed Description

Definition at line 49 of file render.c.

The documentation for this struct was generated from the following file:

- src/libtess/render.c

## 4.392 FastEntityStatePdu Struct Reference

### Data Fields

- struct **EntityInformationFamilyPdu** **myEntityInformationFamilyPdu**
- unsigned short **site**  
*The site ID.*
- unsigned short **application**  
*The application ID.*
- unsigned short **entity**  
*the entity ID*
- unsigned char **forceld**  
*what force this entity is affiliated with, eg red, blue, neutral, etc*
- char **numberOfArticulationParameters**  
*How many articulation parameters are in the variable length list.*
- unsigned char **entityKind**  
*Kind of entity.*
- unsigned char **domain**  
*Domain of entity (air, surface, subsurface, space, etc)*
- unsigned short **country**  
*country to which the design of the entity is attributed*
- unsigned char **category**

- category of entity*
- unsigned char **subcategory**
  - subcategory of entity*
- unsigned char **specific**
  - specific info based on subcategory field*
- unsigned char **extra**
- unsigned char **altEntityKind**
  - Kind of entity.*
- unsigned char **altDomain**
  - Domain of entity (air, surface, subsurface, space, etc)*
- unsigned short **altCountry**
  - country to which the design of the entity is attributed*
- unsigned char **altCategory**
  - category of entity*
- unsigned char **altSubcategory**
  - subcategory of entity*
- unsigned char **altSpecific**
  - specific info based on subcategory field*
- unsigned char **altExtra**
- float **xVelocity**
  - X velo.*
- float **yVelocity**
  - y Value*
- float **zVelocity**
  - Z value.*
- double **xLocation**
  - X value.*
- double **yLocation**
  - y Value*
- double **zLocation**
  - Z value.*
- float **psi**
- float **theta**
- float **phi**
- int **entityAppearance**
  - a series of bit flags that are used to help draw the entity, such as smoking, on fire, etc.*
- unsigned char **deadReckoningAlgorithm**
  - enumeration of what dead reckoning algorithm to use*
- char **otherParameters** [15]
  - other parameters to use in the dead reckoning algorithm*
- float **xAcceleration**
  - X value.*
- float **yAcceleration**
  - y Value*
- float **zAcceleration**
  - Z value.*
- float **xAngularVelocity**
  - X value.*
- float **yAngularVelocity**
  - y Value*
- float **zAngularVelocity**

- Z value.*
- char **marking** [12]  
*characters that can be used for debugging, or to draw unique strings on the side of entities in the world*
- int **capabilities**  
*a series of bit flags*
- void \* **articulationParameters**  
*variable length list of articulation parameters*

### 4.392.1 Detailed Description

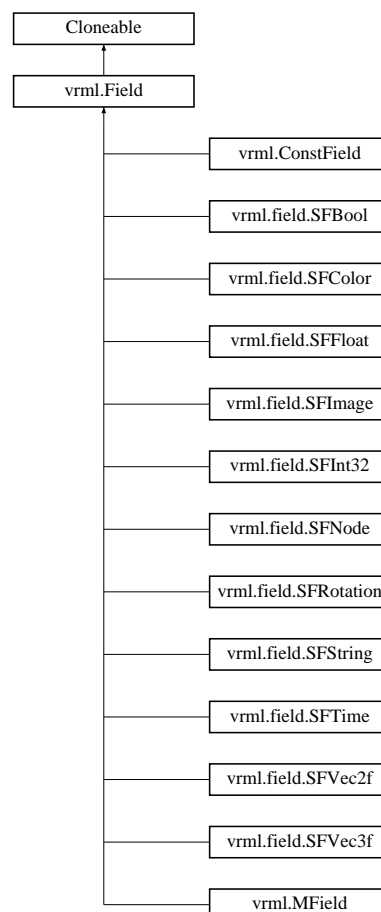
Definition at line 2163 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.393 vrml.Field Class Reference

Inheritance diagram for vrml.Field:



## Public Member Functions

- Object **clone** ()
- void **bind\_to** ( FWJavaScriptBinding b)
- final void **\_\_updateRead** ()
- abstract void **\_\_fromPerl** (BufferedReader in) throws IOException
- abstract void **\_\_toPerl** (PrintWriter out) throws IOException
- void **setOffset** (String offs)
- String **getOffset** ()

## Protected Member Functions

- final void **\_\_updateWrite** ()

### 4.393.1 Detailed Description

Definition at line 4 of file Field.java.

The documentation for this class was generated from the following file:

- src/java/vrml/Field.java

## 4.394 field\_info Struct Reference

### Data Fields

- int **nameIndex**
- int **offset**
- int **typeIndex**
- int **ioType**
- int **version**
- int **unca**

### 4.394.1 Detailed Description

Definition at line 70 of file headers.h.

The documentation for this struct was generated from the following file:

- src/lib/main/headers.h

## 4.395 FieldDecl Struct Reference

### Data Fields

- indexT **PKWmode**
- indexT **fieldType**
- indexT **lexerNameIndex**
- indexT **JSparamNameIndex**
- int **shaderVariableID**

### 4.395.1 Detailed Description

Definition at line 32 of file CFieldDecls.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CFieldDecls.h

## 4.396 vrml.external.field.FieldTypes Class Reference

### Static Public Attributes

- static final int **UnknownType** = 0
- static final int **SFBOOL** = 1
- static final int **SFIMAGE** = 2
- static final int **SFTIME** = 3
- static final int **SFCOLOR** = 4
- static final int **MFCOLOR** = 5
- static final int **SFFLOAT** = 6
- static final int **MFFLOAT** = 7
- static final int **SFINT32** = 8
- static final int **MFINT32** = 9
- static final int **SFNODE** = 10
- static final int **MFNODE** = 11
- static final int **SFROTATION** = 12
- static final int **MFROTATION** = 13
- static final int **SFSTRING** = 14
- static final int **MFSTRING** = 15
- static final int **SFVEC2F** = 16
- static final int **MFVEC2F** = 17
- static final int **SFVEC3F** = 18
- static final int **MFVEC3F** = 19

### 4.396.1 Detailed Description

Definition at line 5 of file FieldTypes.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/field/FieldTypes.java

## 4.397 file\_in\_zip64\_read\_info\_s Struct Reference

### Data Fields

- char \* **read\_buffer**
- z\_stream **stream**
- ZPOS64\_T **pos\_in\_zipfile**
- uLong **stream\_initialised**
- ZPOS64\_T **offset\_local\_extrafield**
- uInt **size\_local\_extrafield**
- ZPOS64\_T **pos\_local\_extrafield**
- ZPOS64\_T **total\_out\_64**
- uLong **crc32**
- uLong **crc32\_wait**
- ZPOS64\_T **rest\_read\_compressed**
- ZPOS64\_T **rest\_read\_uncompressed**
- **zlib\_filefunc64\_32\_def** z\_filefunc
- voidpf **filestream**
- uLong **compression\_method**
- ZPOS64\_T **byte\_before\_the\_zipfile**
- int **raw**

### 4.397.1 Detailed Description

Definition at line 134 of file unzip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.c

## 4.398 FirePdu Struct Reference

### Data Fields

- struct **WarfareFamilyPdu** myWarfareFamilyPdu
- struct **EntityID** munitionID  
*ID of the munition that is being shot.*
- struct **EventID** eventID  
*ID of event.*
- int **fireMissionIndex**
- struct **Vector3Double** locationInWorldCoordinates  
*location of the firing event*
- struct **BurstDescriptor** burstDescriptor  
*Describes munitions used in the firing event.*
- struct **Vector3Float** velocity  
*Velocity of the ammunition.*
- float **range**  
*range to the target*

### 4.398.1 Detailed Description

Definition at line 1836 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.399 FirstStruct Struct Reference

### Data Fields

- void \* **tonode**
- void(\* **interp\_ptr** )(void \*)

### 4.399.1 Detailed Description

- we count times through the scenegraph; helps to break routing loops */\* Routing table \*/ Structure table \*/*

Definition at line 166 of file CRoutes.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.c

## 4.400 FixedDatum Struct Reference

### Data Fields

- unsigned int **fixedDatumID**  
*ID of the fixed datum.*
- unsigned int **fixedDatumValue**  
*Value for the fixed datum.*

### 4.400.1 Detailed Description

Definition at line 280 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h



## 4.401 Flist Class Reference

### Public Member Functions

- void **add** (REAL x)
- void **filter** (void)
- void **grow** (int)
- void **taper** (REAL, REAL)

### Data Fields

- REAL \* **pts**
- int **npts**
- int **start**
- int **end**

### Protected Attributes

- **FlistSorter** sorter

### 4.401.1 Detailed Description

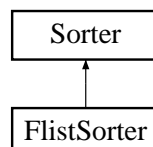
Definition at line 42 of file flist.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/flist.h
- src/libnurbs/internals/flist.cc

## 4.402 FlistSorter Class Reference

Inheritance diagram for FlistSorter:



### Public Member Functions

- void **qsort** (REAL \*a, int n)

## Protected Member Functions

- virtual int **qscmp** (char \*, char \*)
- virtual void **qsexc** (char \*i, char \*j)
- virtual void **qstexc** (char \*i, char \*j, char \*k)

### 4.402.1 Detailed Description

Definition at line 42 of file flistsorter.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/flistsorter.h
- src/libnurbs/internals/flistsorter.cc

## 4.403 flychord Struct Reference

### Data Fields

- int **chord**
- **Key arrows** [4]

### 4.403.1 Detailed Description

Definition at line 1644 of file Viewer.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.c

## 4.404 fmtChnk Struct Reference

### Data Fields

- char **chunkID** [4]
- int **chunkSize**
- short **wFormatTag**
- unsigned short **wChannels**
- unsigned int **dwSamplesPerSec**
- unsigned int **dwAvgBytesPerSec**
- unsigned short **wBlockAlign**
- unsigned short **wBitsPerSample**

### 4.404.1 Detailed Description

Definition at line 51 of file soundheader.h.

The documentation for this struct was generated from the following file:

- src/sound/soundheader.h

## 4.405 FourByteChunk Struct Reference

### Data Fields

- char **otherParameters** [4]  
*four bytes of arbitrary data*

### 4.405.1 Detailed Description

Definition at line 203 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.406 freewrl\_params Struct Reference

Initialization.

```
#include <libFreeWRL.h>
```

### Data Fields

- int **width**
- int **height**
- int **xpos**
- int **ypos**
- long int **winToEmbedInto**
- bool **fullscreen**
- bool **multithreading**
- bool **enableEAI**
- bool **verbose**
- bool **frontend\_handles\_display\_thread**
- void \* **display**
- void \* **context**
- void \* **surface**

### 4.406.1 Detailed Description

Initialization.

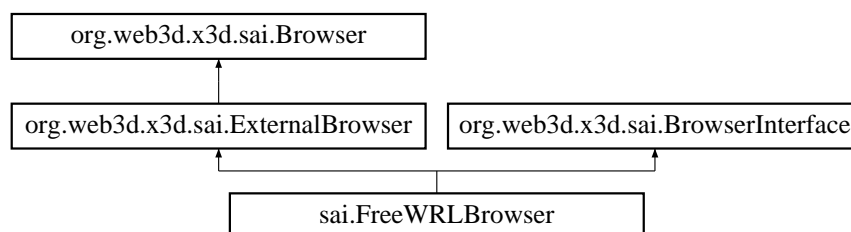
Definition at line 71 of file libFreeWRL.h.

The documentation for this struct was generated from the following file:

- src/lib/libFreeWRL.h

## 4.407 sai.FreeWRLBrowser Class Reference

Inheritance diagram for sai.FreeWRLBrowser:



### Public Member Functions

- int **get\_Browser\_EVtype** (int event)
- **X3DFieldEventListener** **get\_Browser\_EVObserver** (int eventno)
- void **Browser\_RL\_Async\_send** (String EVentreply, int eventno)
- **FreeWRLBrowser** (Applet pApplet, int portnum)
- **FreeWRLBrowser** (Applet pApplet)
- void **checkValid** ()
- String **getName** () throws InvalidBrowserException, ConnectionException
- String **getVersion** () throws InvalidBrowserException, ConnectionException
- float **getCurrentSpeed** () throws InvalidBrowserException, ConnectionException
- float **getCurrentFrameRate** () throws InvalidBrowserException, ConnectionException
- void **replaceWorld** ( X3DScene passedscene) throws InvalidBrowserException, ConnectionException
- void **setDescription** (String des) throws InvalidBrowserException, ConnectionException
- **X3DScene** **createX3DFromString** (String str) throws InvalidBrowserException, InvalidX3DException, ConnectionException, NotSupportedException
- **X3DNode** **createNodeFromString** (String str)
- **X3DScene** **createX3DFromStream** (InputStream is) throws InvalidBrowserException, InvalidX3DException, ConnectionException, NotSupportedException, IOException
- **X3DScene** **createX3DFromURL** (String[] url) throws InvalidBrowserException, InvalidX3DException, ConnectionException, IOException
- Map **getRenderingProperties** () throws InvalidBrowserException, ConnectionException
- Map **getBrowserProperties** () throws InvalidBrowserException, ConnectionException
- void **nextViewpoint** () throws InvalidBrowserException, ConnectionException
- void **previousViewpoint** () throws InvalidBrowserException, ConnectionException
- void **firstViewpoint** () throws InvalidBrowserException, ConnectionException
- void **lastViewpoint** () throws InvalidBrowserException, ConnectionException
- void **print** (Object obj) throws InvalidBrowserException, ConnectionException

- void **println** (Object obj) throws InvalidBrowserException, ConnectionException
- String **addRoute** ( **FreeWRLNode** fromNode, String fromEventOut, **FreeWRLNode** toNode, String toEventIn) throws IllegalArgumentException
- String **deleteRoute** ( **FreeWRLNode** fromNode, String fromEventOut, **FreeWRLNode** toNode, String toEventIn) throws IllegalArgumentException
- void **beginUpdate** ()
- void **endUpdate** ()
- void **initialize** ()
- void **shutdown** ()
- **X3DNode** **getNode** (String nodeName) throws NodeUnavailableException
- void **close** ()
- void **dispose** ()
- void **addBrowserListener** ( **BrowserListener** listener) throws InvalidBrowserException, ConnectionException
- void **removeBrowserListener** ( **BrowserListener** listener) throws InvalidBrowserException, ConnectionException
- void **browserEvent** (int type)
- **X3DScene** **currentScene** ()
- **ProfileInfo** **getProfile** (String name) throws ConnectionException, InvalidBrowserException, NotSupportedException
- **ProfileInfo[]** **getSupportedProfiles** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo[]** **getSupportedComponents** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo** **getComponent** (String name, int level) throws InvalidBrowserException, NotSupportedException, ConnectionException
- **X3DExecutionContext** **getExecutionContext** () throws InvalidBrowserException, ConnectionException
- **X3DScene** **createScene** ( **ProfileInfo** profile, **ComponentInfo[]** components) throws InvalidBrowserException, ConnectionException
- void **loadURL** (String[] url, Map parameters) throws InvalidBrowserException, InvalidURLException, ConnectionException
- String **getDescription** () throws InvalidBrowserException, ConnectionException
- void **stopRender** ()
- void **pauseRender** ()
- **X3DScene** **importDocument** (Node element) throws InvalidBrowserException, InvalidDocumentException, NotSupportedException, ConnectionException

## Static Public Member Functions

- static void **SendChildEvent** (String parent, String offset, String fieldName, String child)
- static void **newSendEvent** ( **FreeWRLField** field, String value)
- static String **sendGlobalCommand** (String command)
- static String **SendEventOut** (String nodeptr, String offset, String datasize, String datatype, String command)
- static void **RegisterListener** ( **X3DFieldEventListener** f, Object userData, String nodeptr, String offset, String datatype, String datasize, int EventType)
- static void **unRegisterListener** ( **X3DFieldEventListener** f, String nodeptr, String offset, String datatype, String datasize, int EventType)

## Static Protected Member Functions

- static String **SendEventType** (String nodeName, String ptr, String fieldName, String direction)
- static synchronized String **getVRMLreply** (int queryno)

### 4.407.1 Detailed Description

Definition at line 18 of file FreeWRLBrowser.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLBrowser.java

## 4.408 sai.FreeWRLBrowserInfo Class Reference

### Static Public Member Functions

- static void **setBrowserProperty** (int property, boolean value)
- static boolean **getBrowserProperty** (int property)
- static Map **getBrowserProperties** ()

### 4.408.1 Detailed Description

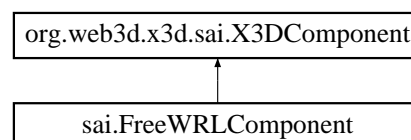
Definition at line 5 of file FreeWRLBrowserInfo.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLBrowserInfo.java

## 4.409 sai.FreeWRLComponent Class Reference

Inheritance diagram for sai.FreeWRLComponent:



### Public Member Functions

- **ExternalBrowser** **getBrowser** ()
- Object **getImplementation** ()
- void **shutdown** ()

### 4.409.1 Detailed Description

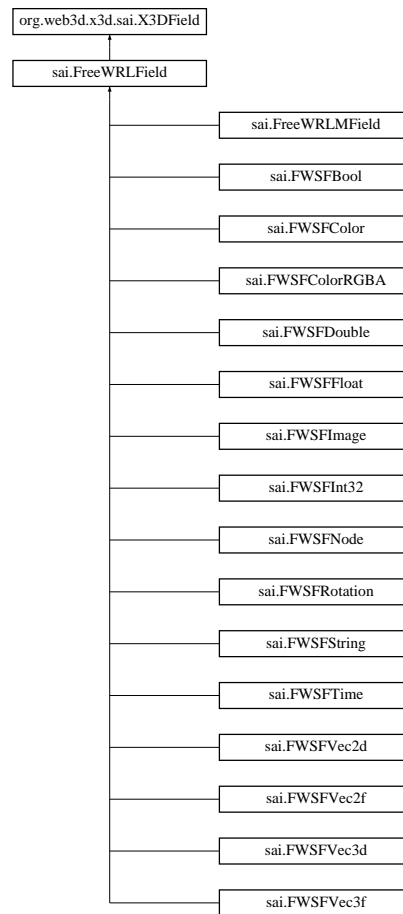
Definition at line 4 of file FreeWRLComponent.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLComponent.java

## 4.410 sai.FreeWRLField Class Reference

Inheritance diagram for sai.FreeWRLField:



### Public Member Functions

- **FreeWRLField** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- **String toString** ()
- **X3DFieldDefinition getDefinition** () throws **InvalidFieldException**, **ConnectionException**
- **boolean isReadable** () throws **InvalidFieldException**, **ConnectionException**
- **boolean isWritable** () throws **InvalidFieldException**, **ConnectionException**
- **void addX3DEventListener** ( **X3DFieldEventListener** l) throws **ConnectionException**, **InvalidFieldException**
- **void removeX3DEventListener** ( **X3DFieldEventListener** l) throws **ConnectionException**, **InvalidFieldException**
- **void setUserData** (Object data) throws **InvalidFieldException**, **ConnectionException**
- **Object getUserData** () throws **InvalidFieldException**, **ConnectionException**
- **void dispose** ()
- **void checkValid** ()
- **void setCommand** (String com)
- **void setNode** (String nod)
- **void setDataType** (String dt)
- **void setNodePtr** (String np)
- **void setOffset** (String off)
- **void setDataSize** (String ds)

- void **setScriptType** (String st)
- String **getDataSize** ()
- String **getScriptType** ()
- String **getCommand** ()
- String **getNode** ()
- String **getDataType** ()
- String **getNodePtr** ()
- String **getOffset** ()

### Protected Attributes

- **FreeWRLFieldDefinition** fieldDef
- Object **userData**
- **FreeWRLBrowser** browser

#### 4.410.1 Detailed Description

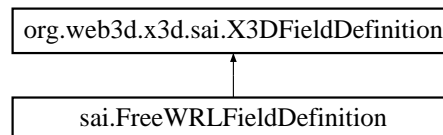
Definition at line 4 of file FreeWRLField.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLField.java

### 4.411 sai.FreeWRLFieldDefinition Class Reference

Inheritance diagram for sai.FreeWRLFieldDefinition:



### Public Member Functions

- **FreeWRLFieldDefinition** (String nm, int access, int field)
- String **getName** ()
- int **getAccessType** ()
- int **getFieldType** ()
- String **getFieldTypeString** ()
- void **setDefaultValue** (String val)
- String **getDefault** ()

### Protected Attributes

- String **name**
- int **accessType**
- int **fieldType**
- String **fieldTypeString**
- String **defaultVal**



### 4.411.1 Detailed Description

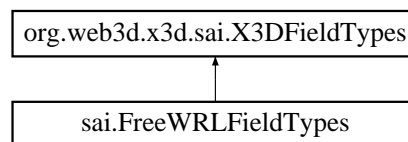
Definition at line 4 of file FreeWRLFieldDefinition.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLFieldDefinition.java

## 4.412 sai.FreeWRLFieldTypes Class Reference

Inheritance diagram for sai.FreeWRLFieldTypes:



### Static Public Member Functions

- static int **getIntType** (String type)
- static String **getStringType** (int type)
- static String **getStringDesc** (int type)
- static int **getIntFromStringDesc** (String desc)
- static int **getAccessFromType** (String type)
- static int **getIntAccess** (String type)
- static String **getStringAccess** (int type)

### Static Public Attributes

- static int **SFUNKOWN** = 0

### Additional Inherited Members

### 4.412.1 Detailed Description

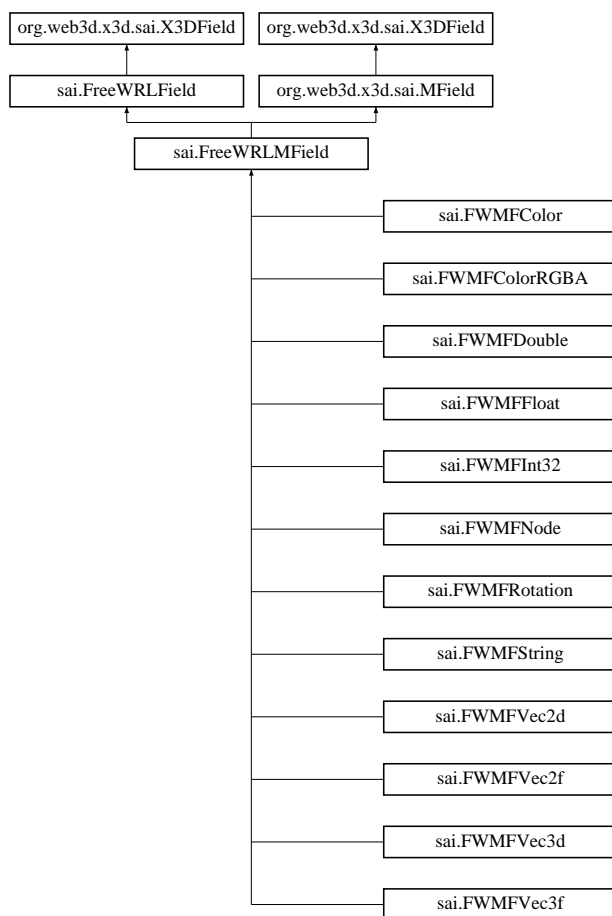
Definition at line 5 of file FreeWRLFieldTypes.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLFieldTypes.java

## 4.413 sai.FreeWRLMField Class Reference

Inheritance diagram for sai.FreeWRLMField:



### Public Member Functions

- **FreeWRLMField** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- **int size** () throws InvalidFieldException, ConnectionException
- **void clear** () throws InvalidFieldException, ConnectionException
- **void remove** (int index) throws InvalidFieldException, ConnectionException, ArrayIndexOutOfBoundsException

### Additional Inherited Members

#### 4.413.1 Detailed Description

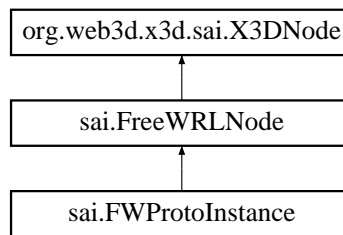
Definition at line 5 of file FreeWRLMField.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLMField.java

## 4.414 sai.FreeWRLNode Class Reference

Inheritance diagram for sai.FreeWRLNode:



### Public Member Functions

- **FreeWRLNode** ( **FreeWRLBrowser** b)
- **String toString** ()
- **boolean equals** (Object o)
- **String getNodeName** () throws **InvalidNodeException**, **ConnectionException**
- **void setPerIPtr** (String p)
- **String getPerIPtr** ()
- **String getName** ()
- **int[] getNodeTypes** () throws **InvalidNodeException**, **ConnectionException**
- **X3DFieldDefinition[] getFieldDefinitions** () throws **InvalidNodeException**, **ConnectionException**
- **X3DField getField** (String fieldName) throws **InvalidNameException**, **InvalidNodeException**, **ConnectionException**
- **void dispose** () throws **InvalidNodeException**
- **void setNodeName** (String n)
- **void setType** (int t)
- **void setPointer** (String p)
- **String getPointer** ()
- **void setMetadata** ( **X3DMetadataObject** data) throws **InvalidNodeException**, **ConnectionException**
- **X3DMetadataObject getMetadata** () throws **InvalidNodeException**, **ConnectionException**

### 4.414.1 Detailed Description

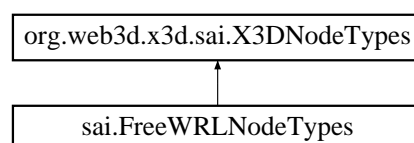
Definition at line 6 of file FreeWRLNode.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLNode.java

## 4.415 sai.FreeWRLNodeTypes Class Reference

Inheritance diagram for sai.FreeWRLNodeTypes:



## Static Public Member Functions

- static String **getStringType** (int type)

## Data Fields

- int **X3D\_Component\_Networking** = 1
- int **X3D\_Component\_Shape** = 2
- int **X3D\_Component\_Geometry2D** = 3
- int **X3D\_Component\_Sound** = 4
- int **X3D\_Component\_EnvironmentalEffects** = 5
- int **X3D\_Component\_Navigation** = 6
- int **X3D\_Component\_EventUtilities** = 7
- int **X3D\_Component\_Geometry3D** = 8
- int **X3D\_Component\_Rendering** = 9
- int **X3D\_Component\_Interpolation** = 10
- int **X3D\_Component\_Nurbs** = 11
- int **X3D\_Component\_PointingDevice** = 12
- int **X3D\_Component\_Lighting** = 13
- int **X3D\_Component\_Text** = 14
- int **X3D\_Component\_Geospatial** = 15
- int **X3D\_Component\_Grouping** = 16
- int **X3D\_Component\_HAnim** = 17
- int **X3D\_Component\_Texturing** = 18
- int **X3D\_Component\_EnvironmentalSensor** = 19
- int **X3D\_Component\_Scripting** = 20
- int **X3D\_Component\_Time** = 21

### 4.415.1 Detailed Description

Definition at line 5 of file FreeWRLNodeTypes.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLNodeTypes.java

## 4.416 sai.FreeWRLRendererInfo Class Reference

### Static Public Member Functions

- static void **setRenderingProperty** (String **key**, Object value)
- static Object **getRenderingProperty** (String **key**)
- static Map **getRenderingProperties** ()

### 4.416.1 Detailed Description

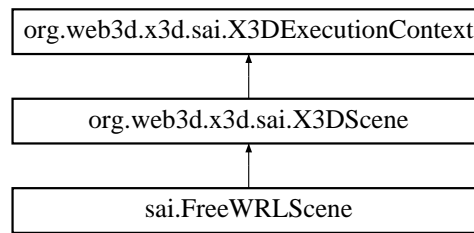
Definition at line 5 of file FreeWRLRendererInfo.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLRendererInfo.java

## 4.417 sai.FreeWRLScene Class Reference

Inheritance diagram for sai.FreeWRLScene:



### Public Member Functions

- **FreeWRLScene** ( **FreeWRLNode**[] n, **FreeWRLBrowser** b)
- **FreeWRLScene** ( **FreeWRLBrowser** b)
- **FreeWRLScene** ( **FWComponentInfo**[] c, **FWProfileInfo** p, **FreeWRLBrowser** b)
- void **setCurrent** (boolean val)
- String **getMetaData** (String **key**) throws **InvalidExecutionContextException**
- void **setMetaData** (String **key**, String value) throws **InvalidExecutionContextException**
- **X3DNode** **getExportedNode** (String nodeName) throws **InvalidExecutionContextException**, **Node↔UnavailableException**, **InvalidNameException**
- void **updateExportedNode** (String nodeName, String newName) throws **InvalidExecutionContextException**, **InvalidNameException**
- void **removeExportedNode** (String nodeName) throws **InvalidExecutionContextException**, **InvalidName↔Exception**
- void **addRootNode** ( **X3DNode** rootNode) throws **InvalidExecutionContextException**, **NodeInUseException**, **InsufficientCapabilitiesException**
- void **removeRootNode** ( **X3DNode** rootNode) throws **InvalidExecutionContextException**
- String **getSpecificationVersion** () throws **InvalidExecutionContextException**
- int **getEncoding** () throws **InvalidExecutionContextException**
- **ProfileInfo** **getProfile** () throws **InvalidExecutionContextException**
- **ComponentInfo**[] **getComponents** () throws **InvalidExecutionContextException**
- String **getWorldURL** () throws **InvalidExecutionContextException**
- **X3DNode** **getNamedNode** (String nodeName) throws **InvalidExecutionContextException**, **Node↔UnavailableException**, **InvalidNameException**
- **X3DNode** **getImportedNode** (String nodeName) throws **InvalidExecutionContextException**, **Node↔UnavailableException**, **InvalidNameException**
- **X3DNode** **createNode** (String nodeName) throws **InvalidExecutionContextException**, **InvalidName↔Exception**
- **X3DProtoInstance** **createProto** (String protoName) throws **InvalidExecutionContextException**, **Invalid↔NameException**
- void **updateNamedNode** (String nodeName, **X3DNode** nodeRef) throws **InvalidExecutionContextException**, **InvalidNameException**, **ImportedNodeException**
- void **updateImportedNode** (String nodeName, String importedName, **X3DNode** nodeRef) throws **Invalid↔ExecutionContextException**, **InvalidNameException**, **ImportedNodeException**
- void **removeNamedNode** (String nodeName) throws **InvalidExecutionContextException**, **InvalidName↔Exception**
- void **removeImportedNode** (String nodeName) throws **InvalidExecutionContextException**, **InvalidName↔Exception**
- **X3DProtoDeclaration** **getProtoDeclaration** (String protoName) throws **InvalidExecutionContextException**, **InvalidNameException**

- void **updateProtoDeclaration** (String protoName, **X3DProtoDeclaration** newDeclaration) throws InvalidExecutionContextException, InvalidNameException
- void **removeProtoDeclaration** (String protoName) throws InvalidExecutionContextException, InvalidNameException
- **X3DExternProtoDeclaration** **getExternProtoDeclaration** (String protoName) throws InvalidExecutionContextException, InvalidNameException, URLUnavailableException
- void **updateExternProtoDeclaration** (String protoName, **X3DExternProtoDeclaration** newDeclaration) throws InvalidExecutionContextException
- void **removeExternProtoDeclaration** (String protoName) throws InvalidExecutionContextException
- **X3DNode**[] **getRootNodes** () throws InvalidExecutionContextException
- **X3DRoute**[] **getRoutes** () throws InvalidExecutionContextException
- **X3DRoute** **addRoute** ( **X3DNode** startNode, String startName, **X3DNode** endNode, String endEvent) throws InvalidExecutionContextException, InvalidNodeException, InvalidFieldException
- void **removeRoute** ( **X3DRoute** route) throws InvalidExecutionContextException, InvalidNodeException, InvalidFieldException
- void **checkValid** ()
- void **dispose** ()

#### 4.417.1 Detailed Description

Definition at line 6 of file FreeWRLScene.java.

The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLScene.java

### 4.418 ftype Struct Reference

#### Data Fields

- int **type**
- void (\*)(**copy** )(void \*T, void \*A)
- void (\*)(**add** )(void \*T, void \*A, void \*B)
- void (\*)(**dif** )(void \*T, void \*A, void \*B)
- void (\*)(**scale** )(void \*T, void \*A, float S)
- void (\*)(**lerp** )(void \*T, void \*A, void \*B, float alpha)
- float (\*)(**dist** )(void \*A)
- int (\*)(**same** )(void \*A, void \*B)
- int (\*)(**approx** )(void \*A, void \*B)
- void (\*)(**arr** )(void \*A, int i)
- void \*\* **tmp**

#### 4.418.1 Detailed Description

Definition at line 195 of file Component\_Followers.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Followers.c

## 4.419 FundamentalParameterData Struct Reference

### Data Fields

- float **frequency**  
*center frequency of the emission in hertz.*
- float **frequencyRange**  
*Bandwidth of the frequencies corresponding to the fequency field.*
- float **effectiveRadiatedPower**  
*Effective radiated power for the emission in DdBm.*
- float **pulseRepetitionFrequency**  
*Average repetition frequency of the emission in hertz.*
- float **pulseWidth**  
*Average pulse width of the emission in microseconds.*
- float **beamAzimuthCenter**  
*Specifies the beam azimuth an elevation centers and corresponding half-angles to describe the scan volume.*
- float **beamAzimuthSweep**  
*Specifies the beam azimuth sweep to determine scan volume.*
- float **beamElevationCenter**  
*Specifies the beam elevation center to determine scan volume.*
- float **beamElevationSweep**  
*Specifies the beam elevation sweep to determine scan volume.*
- float **beamSweepSync**  
*allows receiver to synchronize its regenerated scan pattern to that of the emmitter.*

### 4.419.1 Detailed Description

Definition at line 495 of file DIS.h.

### 4.419.2 Field Documentation

#### 4.419.2.1 beamSweepSync

```
float FundamentalParameterData::beamSweepSync
```

allows receiver to synchronize its regenerated scan pattern to that of the emmitter.

Specifies the percentage of time a scan is through its pattern from its origion.

Definition at line 515 of file DIS.h.

#### 4.419.2.2 effectiveRadiatedPower

```
float FundamentalParameterData::effectiveRadiatedPower
```

Effective radiated power for the emission in DdBm.

For a radar noise jammer, indicates the peak of the transmitted power.

Definition at line 501 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

### 4.420 FundamentalParameterDataIff Struct Reference

#### Data Fields

- float **erp**  
*ERP.*
- float **frequency**  
*frequency*
- float **pgrf**  
*pgrf*
- float **pulseWidth**  
*Pulse width.*
- unsigned int **burstLength**  
*Burst length.*
- unsigned char **applicableModes**  
*Applicable modes enumeration.*
- unsigned short **pad2**  
*padding*
- unsigned char **pad3**  
*padding*

#### 4.420.1 Detailed Description

Definition at line 254 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h



## 4.421 fw\_MaterialParameters Struct Reference

### Data Fields

- float **emission** [4]
- float **ambient** [4]
- float **diffuse** [4]
- float **specular** [4]
- float **shininess**

### 4.421.1 Detailed Description

Definition at line 143 of file Component\_Shape.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Shape.h

## 4.422 FWBITMAPFILEHEADER Struct Reference

### Data Fields

- FDWORD **bfSize**
- FWORD **bfReserved1**
- FWORD **bfReserved2**
- FDWORD **bfOffBits**

### 4.422.1 Detailed Description

Definition at line 196 of file Snapshot.c.

The documentation for this struct was generated from the following file:

- src/lib/main/Snapshot.c

## 4.423 FWBITMAPINFO Struct Reference

### Data Fields

- FWBITMAPINFOHEADER **bmiHeader**
- FWRGBQUAD **bmiColors** [1]

### 4.423.1 Detailed Description

Definition at line 211 of file Snapshot.c.

The documentation for this struct was generated from the following file:

- src/lib/main/Snapshot.c

## 4.424 FWBITMAPINFOHEADER Struct Reference

### Data Fields

- FDWORD **biSize**
- FLONG **biWidth**
- FLONG **biHeight**
- FWORD **biPlanes**
- FWORD **biBitCount**
- FDWORD **biCompression**
- FDWORD **biSizeImage**
- FLONG **biXPelsPerMeter**
- FLONG **biYPelsPerMeter**
- FDWORD **biClrUsed**
- FDWORD **biClrImportant**

### 4.424.1 Detailed Description

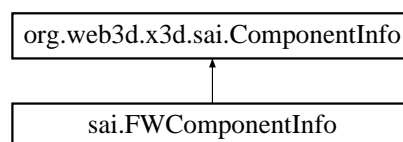
Definition at line 181 of file Snapshot.c.

The documentation for this struct was generated from the following file:

- src/lib/main/Snapshot.c

## 4.425 sai.FWComponentInfo Class Reference

Inheritance diagram for sai.FWComponentInfo:



### Public Member Functions

- **FWComponentInfo** (String n, int l, String t, String u)
- String **getName** ()
- int **getLevel** ()
- String **getTitle** ()
- String **getProviderURL** ()
- String **toX3DString** ()

### 4.425.1 Detailed Description

Definition at line 4 of file FWComponentInfo.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWComponentInfo.java

## 4.426 vrml.FWCreateField Class Reference

### Static Public Member Functions

- static **Field** **createField** (String type)
- static **ConstField** **createConstField** (String type)

### 4.426.1 Detailed Description

Definition at line 5 of file FWCreateField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/FWCreateField.java

## 4.427 sai.FWExternProtoDeclaration Class Reference

Inheritance diagram for sai.FWExternProtoDeclaration:



### Public Member Functions

- String **getProtoName** ()
- int **getLoadState** ()
- void **loadNow** ()
- **X3DProtoInstance** **createInstance** () throws InvalidOperationTimingException, InvalidProtoException
- **X3DFieldDefinition[]** **getFieldDefinitions** () throws InvalidOperationTimingException, InvalidProtoException
- void **setProtoName** (String name)
- void **setFields** ( FreeWRLFieldDefinition[] f)
- void **setType** (int t)
- void **dispose** ()

### 4.427.1 Detailed Description

Definition at line 5 of file FWExternProtoDeclaration.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWExternProtoDeclaration.java

## 4.428 FWFunctionSpec Struct Reference

### Data Fields

- const char \* **name**
- FWFunction **call**
- char **retType**
- struct **ArgListType** arglist

### 4.428.1 Detailed Description

Definition at line 60 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.429 vrml.FWHelper Class Reference

### Static Public Member Functions

- static String **base64encode** (String str)
- static String **base64decode** (String str)
- static String **quote** (String str)  
*This is the static method, that quotes a string.*
- static String **nodeToString** ( **BaseNode** node)

### 4.429.1 Detailed Description

Definition at line 4 of file FWHelper.java.

The documentation for this class was generated from the following file:

- src/java/vrml/FWHelper.java

## 4.430 vrml.FWJavaScript Class Reference

### Static Public Member Functions

- static void **add\_touched** ( **Field** f)
- static void **send\_touched** (String reqid) throws IOException
- static void **main** (String argv[]) throws ClassNotFoundException, NoSuchMethodException, InstantiationException, IllegalAccessException, InvocationTargetException, Exception, Throwable
- static String **getFieldType** ( **BaseNode** node, String fieldname, String kind)
- static void **readField** ( **BaseNode** node, String fieldName, **Field** fld)
- static String **getNodeTypes** ( **BaseNode** node)
- static **Browser** **getBrowser** ()
- static **BaseNode**[] **createVrmlFromString** (String vrmlSyntax) throws InvalidVRMLSyntaxException
- static **BaseNode**[] **createX3DFromString** (String vrmlSyntax) throws InvalidX3DSyntaxException

### 4.430.1 Detailed Description

Definition at line 13 of file FWJavaScript.java.

The documentation for this class was generated from the following file:

- src/java/vrml/FWJavaScript.java

## 4.431 vrml.FWJavaScriptBinding Class Reference

### Public Member Functions

- **FWJavaScriptBinding** ( **BaseNode** n, String f)
- **FWJavaScriptBinding** ( **BaseNode** n, String f, boolean u)
- **BaseNode** **node** ()
- String **field** ()
- void **updateRead** ( **Field** field)
- void **updateWrite** ( **Field** field)
- String **toString** ()

### 4.431.1 Detailed Description

Definition at line 5 of file FWJavaScriptBinding.java.

The documentation for this class was generated from the following file:

- src/java/vrml/FWJavaScriptBinding.java

## 4.432 vrml.FWJavaScriptClassLoader Class Reference

Inheritance diagram for vrml.FWJavaScriptClassLoader:



### Public Member Functions

- **FWJavaScriptClassLoader** (String url)

### Protected Member Functions

- Class **findClass** (String name) throws ClassNotFoundException
- PermissionCollection **getPermissions** (CodeSource codesource)
- URL **findResource** (String name)
- Enumeration **findResources** (String name) throws IOException

### 4.432.1 Detailed Description

Definition at line 13 of file FWJavaScriptClassLoader.java.

### 4.432.2 Constructor & Destructor Documentation

#### 4.432.2.1 FWJavaScriptClassLoader()

```
vrml.FWJavaScriptClassLoader.FWJavaScriptClassLoader (
    String url ) [inline]
```

Parameters

|            |                               |
|------------|-------------------------------|
| <i>url</i> | base url for loading classes. |
|------------|-------------------------------|

Definition at line 21 of file FWJavaScriptClassLoader.java.

The documentation for this class was generated from the following file:

- src/java/vrml/FWJavaScriptClassLoader.java

## 4.433 sai.FWMFColor Class Reference

Inheritance diagram for sai.FWMFColor:



### Public Member Functions

- **FWMFColor** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int numVals, float[ ] value) throws `ArrayIndexOutOfBoundsException`, `IllegalArgumentException`
- void **setValue** (int numVals, float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`, `IllegalArgumentException`
- void **set1Value** (int index, float[ ] value) throws `IllegalArgumentException`, `ArrayIndexOutOfBoundsException`
- void **append** (float[ ] value) throws `IllegalArgumentException`, `ArrayIndexOutOfBoundsException`
- void **insertValue** (int index, float[ ] value)

### Additional Inherited Members

#### 4.433.1 Detailed Description

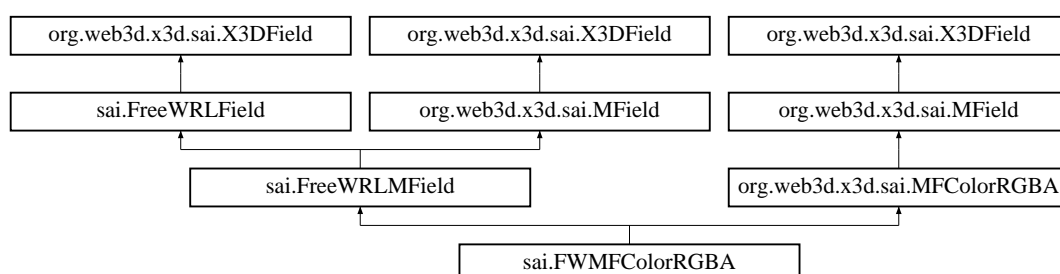
Definition at line 6 of file `FWMFColor.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/FWMFColor.java`

## 4.434 sai.FWMFColorRGBA Class Reference

Inheritance diagram for sai.FWMFColorRGBA:



## Public Member Functions

- **FWMFColorRGBA** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int numColors, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int numColors, float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

## Additional Inherited Members

### 4.434.1 Detailed Description

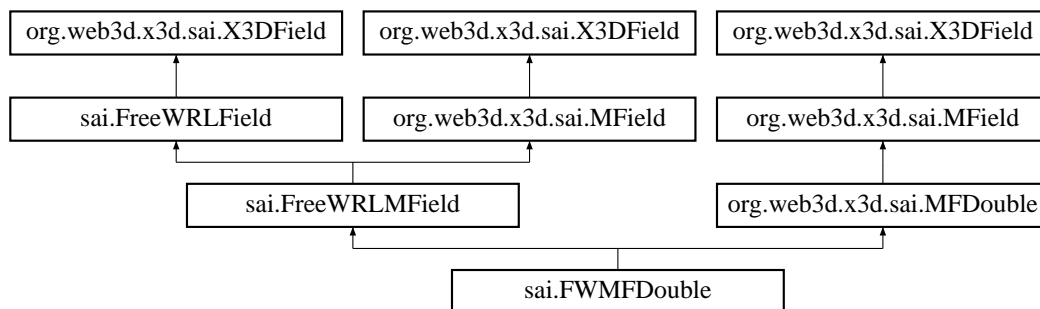
Definition at line 5 of file `FWMFColorRGBA.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/FWMFColorRGBA.java`

### 4.435 sai.FWMFDouble Class Reference

Inheritance diagram for `sai.FWMFDouble`:



## Public Member Functions

- **FWMFDouble** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (double[ ] value) throws `ArrayIndexOutOfBoundsException`
- double **get1Value** (int index) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, double[ ] value)
- void **set1Value** (int index, double value) throws `ArrayIndexOutOfBoundsException`
- void **append** (double[ ] value)
- void **insertValue** (int index, double[ ] value) throws `ArrayIndexOutOfBoundsException`



## Additional Inherited Members

### 4.435.1 Detailed Description

Definition at line 5 of file FWMFDouble.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFDouble.java

## 4.436 sai.FWMFFloat Class Reference

Inheritance diagram for sai.FWMFFloat:



## Public Member Functions

- **FWMFFloat** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws **ArrayIndexOutOfBoundsException**
- float **get1Value** (int index) throws **ArrayIndexOutOfBoundsException**
- void **setValue** (int size, float[] value)
- void **set1Value** (int index, float value) throws **ArrayIndexOutOfBoundsException**
- void **append** (float[] value)
- void **insertValue** (int index, float[] value) throws **ArrayIndexOutOfBoundsException**

## Additional Inherited Members

### 4.436.1 Detailed Description

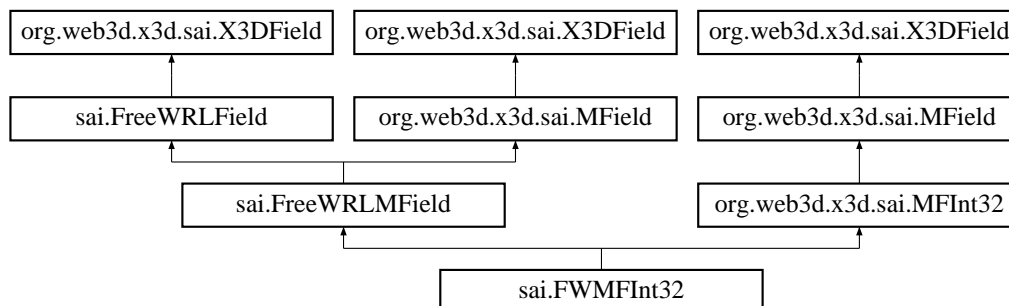
Definition at line 5 of file FWMFFloat.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFFloat.java

## 4.437 sai.FWMFInt32 Class Reference

Inheritance diagram for sai.FWMFInt32:



### Public Member Functions

- **FWMFInt32** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (int[] values) throws ArrayIndexOutOfBoundsException
- int **get1Value** (int index) throws ArrayIndexOutOfBoundsException
- void **setValue** (int size, int[] value)
- void **set1Value** (int index, int value) throws ArrayIndexOutOfBoundsException
- void **append** (int[] value)
- void **insertValue** (int index, int[] value)

### Additional Inherited Members

#### 4.437.1 Detailed Description

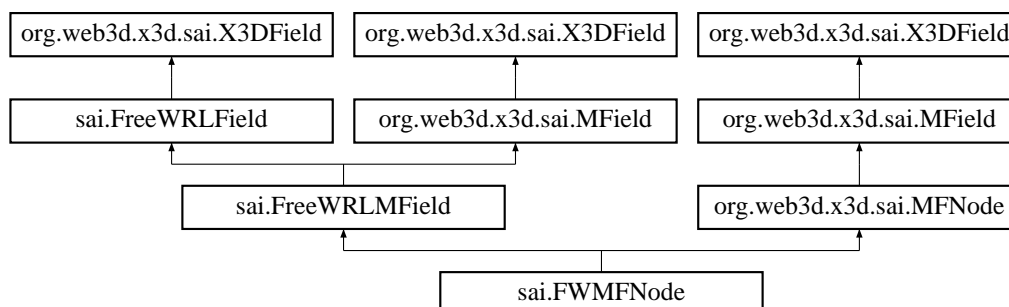
Definition at line 5 of file FWMFInt32.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFInt32.java

## 4.438 sai.FWMFNode Class Reference

Inheritance diagram for sai.FWMFNode:



## Public Member Functions

- void **getValue** ( **X3DNode**[] nodes) throws `ArrayIndexOutOfBoundsException`
- **X3DNode** **get1Value** (int index) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, **X3DNode**[] value)
- void **set1Value** (int index, **X3DNode** value)
- void **append** ( **X3DNode** value)
- void **insertValue** (int index, **X3DNode** value)

## Additional Inherited Members

### 4.438.1 Detailed Description

Definition at line 5 of file FWMFNode.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFNode.java

## 4.439 sai.FWMFRotation Class Reference

Inheritance diagram for sai.FWMFRotation:



## Public Member Functions

- **FWMFRotation** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (float[] value) throws `ArrayIndexOutOfBoundsException`
- void **get1Value** (int index, float[] value)
- void **setValue** (int numRotations, float[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int numRotations, float[] value) throws `ArrayIndexOutOfBoundsException`
- void **set1Value** (int index, float[] value)
- void **append** (float[] value)
- void **insertValue** (int index, float[] value)

## Additional Inherited Members

### 4.439.1 Detailed Description

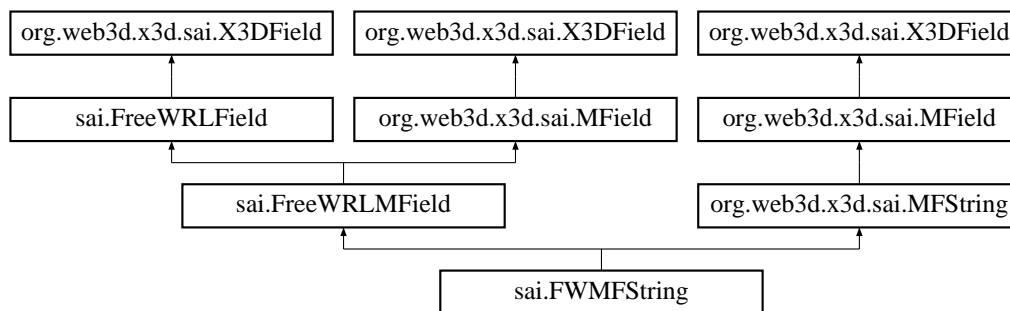
Definition at line 5 of file FWMFRotation.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFRotation.java

## 4.440 sai.FWMFString Class Reference

Inheritance diagram for sai.FWMFString:



## Public Member Functions

- **FWMFString** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (String[] value) throws **ArrayIndexOutOfBoundsException**
- String **get1Value** (int index) throws **ArrayIndexOutOfBoundsException**
- void **setValue** (int numStrings, String[] value)
- void **set1Value** (int index, String value)
- void **append** (String[] value)
- void **insertValue** (int index, String[] value)

## Additional Inherited Members

### 4.440.1 Detailed Description

Definition at line 5 of file FWMFString.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFString.java

## 4.441 sai.FWMFVec2d Class Reference

Inheritance diagram for sai.FWMFVec2d:



### Public Member Functions

- **FWMFVec2d** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (double[][] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (double[] value) throws `ArrayIndexOutOfBoundsException`
- void **get1Value** (int index, double[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, double[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, double[][] value) throws `ArrayIndexOutOfBoundsException`
- void **set1Value** (int index, double[] value) throws `ArrayIndexOutOfBoundsException`
- void **append** (double[] value)
- void **insertValue** (int index, double[] value)

### Additional Inherited Members

#### 4.441.1 Detailed Description

Definition at line 5 of file `FWMFVec2d.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/FWMFVec2d.java`

## 4.442 sai.FWMFVec2f Class Reference

Inheritance diagram for sai.FWMFVec2f:



## Public Member Functions

- **FWMFVec2f** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **get1Value** (int index, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **set1Value** (int index, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

## Additional Inherited Members

### 4.442.1 Detailed Description

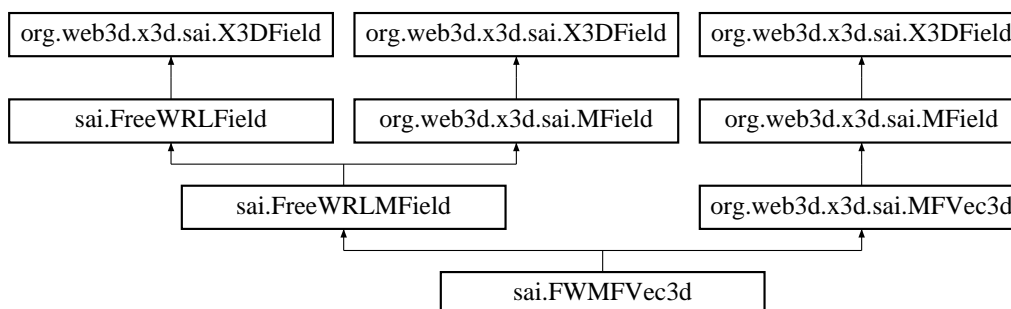
Definition at line 5 of file `FWMFVec2f.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/FWMFVec2f.java`

## 4.443 sai.FWMFVec3d Class Reference

Inheritance diagram for `sai.FWMFVec3d`:



## Public Member Functions

- **FWMFVec3d** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (double[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (double[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **get1Value** (int index, double[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, double[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, double[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **set1Value** (int index, double[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **append** (double[ ] value)
- void **insertValue** (int index, double[ ] value)

## Additional Inherited Members

### 4.443.1 Detailed Description

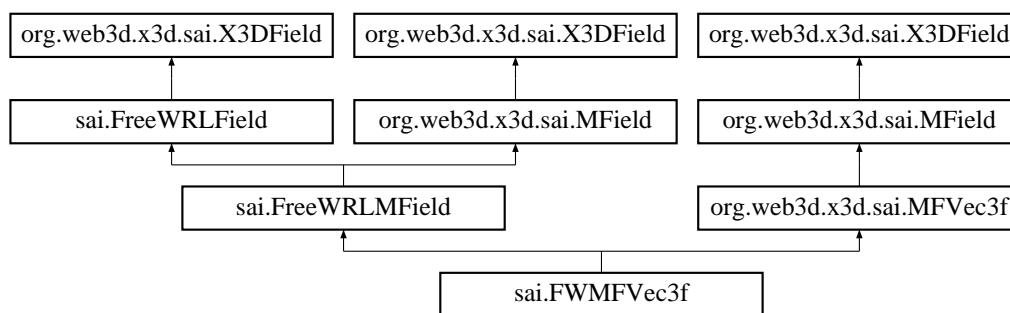
Definition at line 5 of file FWMFVec3d.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFVec3d.java

## 4.444 sai.FWMFVec3f Class Reference

Inheritance diagram for sai.FWMFVec3f:



## Public Member Functions

- **FWMFVec3f** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **getValue** (float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **get1Value** (int index, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (int size, float[ ][ ] value) throws `ArrayIndexOutOfBoundsException`
- void **set1Value** (int index, float[ ] value) throws `ArrayIndexOutOfBoundsException`
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

## Additional Inherited Members

### 4.444.1 Detailed Description

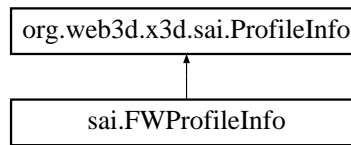
Definition at line 5 of file FWMFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWMFVec3f.java

## 4.445 sai.FWProfileInfo Class Reference

Inheritance diagram for sai.FWProfileInfo:



### Public Member Functions

- **FWProfileInfo** (String n, String t, **ComponentInfo**[] c)
- String **getName** ()
- String **getTitle** ()
- **ComponentInfo**[] **getComponents** ()
- String **toX3DString** ()

#### 4.445.1 Detailed Description

Definition at line 4 of file FWProfileInfo.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWProfileInfo.java

## 4.446 sai.FWProfInfo Class Reference

### Static Public Member Functions

- static **FWProfileInfo** **getProfile** (String name) throws NotSupportedException
- static **FWProfileInfo**[] **getProfiles** ()
- static **ComponentInfo**[] **getComponents** ()
- static **FWComponentInfo** **getComponent** (String name, int level) throws NotSupportedException

#### 4.446.1 Detailed Description

Definition at line 5 of file FWProfInfo.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWProfInfo.java



## 4.447 FWPropertySpec Struct Reference

### Data Fields

- const char \* **name**
- short **index**
- char **type**
- char **readOnly**

### 4.447.1 Detailed Description

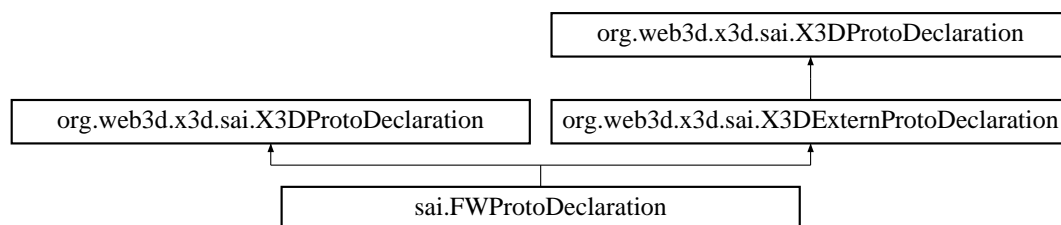
Definition at line 33 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.448 sai.FWProtoDeclaration Class Reference

Inheritance diagram for sai.FWProtoDeclaration:



### Public Member Functions

- String **getProtoName** ()
- String **toString** ()
- **X3DProtoInstance** **createInstance** () throws InvalidOperationTimingException, InvalidProtoException
- **X3DFieldDefinition[]** **getFieldDefinitions** () throws InvalidOperationTimingException, InvalidProtoException
- int **getLoadState** ()
- void **loadNow** ()
- void **setProtoName** (String name)
- void **setFields** ( FreeWRLFieldDefinition[] f)
- void **setType** (int t)
- int[] **getNodeTypes** () throws InvalidProtoException
- void **dispose** ()

### 4.448.1 Detailed Description

Definition at line 5 of file FWProtoDeclaration.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWProtoDeclaration.java

## 4.449 sai.FWProtoInstance Class Reference

Inheritance diagram for sai.FWProtoInstance:



### Public Member Functions

- **FWProtoInstance** ( **FreeWRLBrowser** b)
- **int[]** **getImplementationTypes** ()

### 4.449.1 Detailed Description

Definition at line 4 of file FWProtoInstance.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWProtoInstance.java

## 4.450 FWRGBQUAD Struct Reference

### Data Fields

- **FBYTE** **rgbBlue**
- **FBYTE** **rgbGreen**
- **FBYTE** **rgbRed**
- **FBYTE** **rgbReserved**

### 4.450.1 Detailed Description

Definition at line 204 of file Snapshot.c.

The documentation for this struct was generated from the following file:

- src/lib/main/Snapshot.c

## 4.451 sai.FWRoute Class Reference

Inheritance diagram for sai.FWRoute:



### Public Member Functions

- **FWRoute** ( **FreeWRLNode** sn, String sf, **FreeWRLNode** dn, String df)
- String **toString** ()
- boolean **equals** (Object o)
- **X3DNode** **getSourceNode** () throws InvalidRouteException
- **X3DNode** **getDestinationNode** () throws InvalidRouteException
- String **getSourceField** () throws InvalidRouteException
- String **getDestinationField** () throws InvalidRouteException
- void **dispose** ()

### 4.451.1 Detailed Description

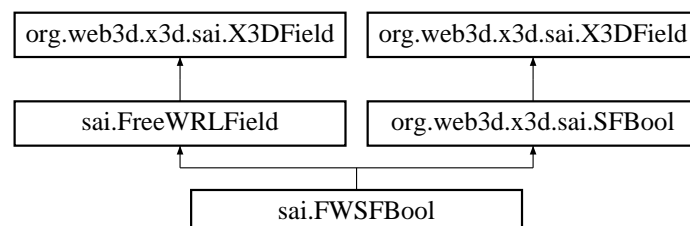
Definition at line 4 of file FWRoute.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWRoute.java

## 4.452 sai.FWSFBool Class Reference

Inheritance diagram for sai.FWSFBool:



## Public Member Functions

- **FWSFBool** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- boolean **getValue** () throws InvalidFieldException
- void **setValue** (boolean value) throws InvalidFieldException

## Additional Inherited Members

### 4.452.1 Detailed Description

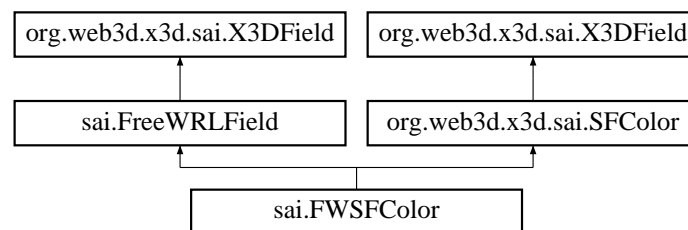
Definition at line 4 of file FWSFBool.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFBool.java

## 4.453 sai.FWSFColor Class Reference

Inheritance diagram for sai.FWSFColor:



## Public Member Functions

- **FWSFColor** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws ArrayIndexOutOfBoundsException
- void **setValue** (float[] value) throws IllegalArgumentException, ArrayIndexOutOfBoundsException

## Additional Inherited Members

### 4.453.1 Detailed Description

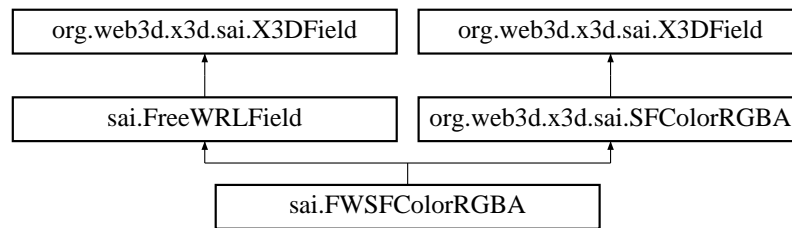
Definition at line 5 of file FWSFColor.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFColor.java

## 4.454 sai.FWSFColorRGBA Class Reference

Inheritance diagram for sai.FWSFColorRGBA:



### Public Member Functions

- **FWSFColorRGBA** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws **ArrayIndexOutOfBoundsException**
- void **setValue** (float[] value) throws **ArrayIndexOutOfBoundsException**

### Additional Inherited Members

#### 4.454.1 Detailed Description

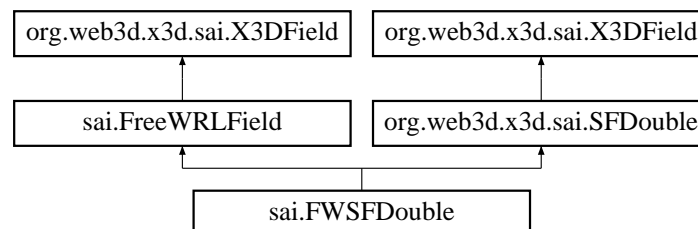
Definition at line 5 of file FWSFColorRGBA.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFColorRGBA.java

## 4.455 sai.FWSFDouble Class Reference

Inheritance diagram for sai.FWSFDouble:



### Public Member Functions

- **FWSFDouble** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- double **getValue** ()
- void **setValue** (double value)

## Additional Inherited Members

### 4.455.1 Detailed Description

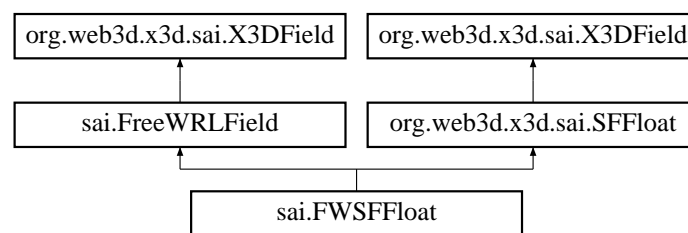
Definition at line 4 of file FWSFDouble.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFDouble.java

## 4.456 sai.FWSFFloat Class Reference

Inheritance diagram for sai.FWSFFloat:



## Public Member Functions

- **FWSFFloat** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- float **getValue** ()
- void **setValue** (float value)

## Additional Inherited Members

### 4.456.1 Detailed Description

Definition at line 4 of file FWSFFloat.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFFloat.java

## 4.457 sai.FWSFImage Class Reference

Inheritance diagram for sai.FWSFImage:



## Public Member Functions

- **FWSFImage** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- int **getWidth** ()
- int **getHeight** ()
- int **getComponents** ()
- void **getPixels** (int[] pixels)
- WritableRenderedImage **getImage** ()
- void **setValue** (int width, int height, int components, int[] pixels)
- void **setImage** (RenderedImage image)
- void **setSubImage** (RenderedImage image, int srcWidth, int srcHeight, int srcXOffset, int srcYOffset, int destXOffset, int destYOffset)

## Additional Inherited Members

### 4.457.1 Detailed Description

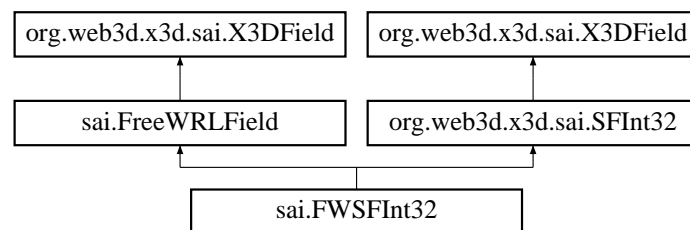
Definition at line 7 of file FWSFImage.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFImage.java

## 4.458 sai.FWSFInt32 Class Reference

Inheritance diagram for sai.FWSFInt32:



## Public Member Functions

- **FWSFInt32** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- int **getValue** ()
- void **setValue** (int value)

## Additional Inherited Members

### 4.458.1 Detailed Description

Definition at line 4 of file FWSFInt32.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFInt32.java

## 4.459 sai.FWSFNode Class Reference

Inheritance diagram for sai.FWSFNode:



### Public Member Functions

- **FWSFNode** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- **X3DNode** **getValue** ()
- void **setValue** ( **X3DNode** value) throws **InvalidNodeException**

### Additional Inherited Members

#### 4.459.1 Detailed Description

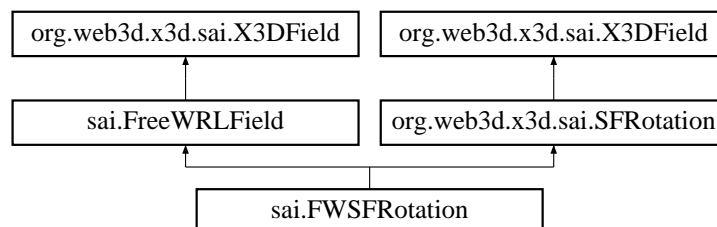
Definition at line 4 of file FWSFNode.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFNode.java

## 4.460 sai.FWSFRotation Class Reference

Inheritance diagram for sai.FWSFRotation:



### Public Member Functions

- **FWSFRotation** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws **ArrayIndexOutOfBoundsException**
- void **setValue** (float[] value) throws **ArrayIndexOutOfBoundsException**



## Additional Inherited Members

### 4.460.1 Detailed Description

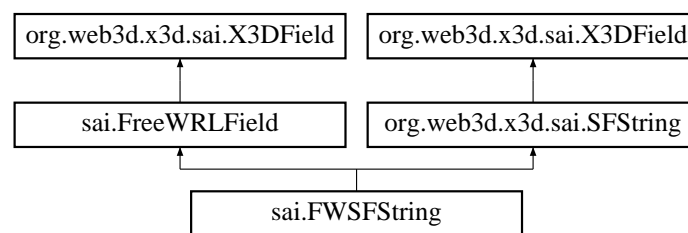
Definition at line 5 of file FWSFRotation.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFRotation.java

## 4.461 sai.FWSFString Class Reference

Inheritance diagram for sai.FWSFString:



## Public Member Functions

- **FWSFString** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- String **getValue** ()
- void **setValue** (String value)

## Additional Inherited Members

### 4.461.1 Detailed Description

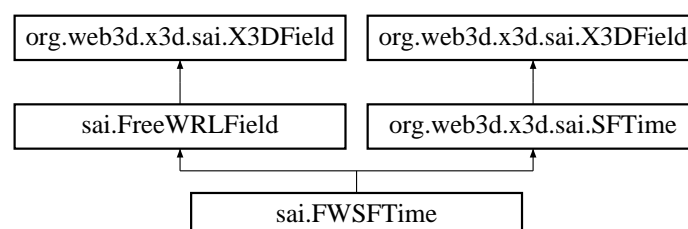
Definition at line 4 of file FWSFString.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFString.java

## 4.462 sai.FWSFTime Class Reference

Inheritance diagram for sai.FWSFTime:



## Public Member Functions

- **FWSFTime** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- double **getValue** ()
- long **getJavaValue** ()
- void **setValue** (double value)
- void **setValue** (long value)

## Additional Inherited Members

### 4.462.1 Detailed Description

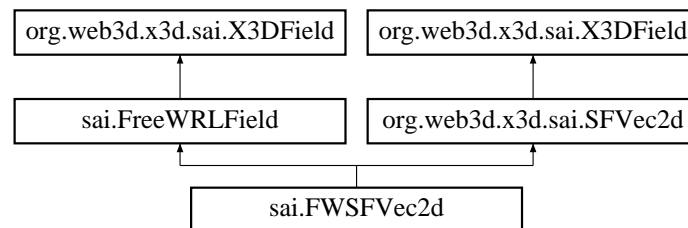
Definition at line 4 of file FWSFTime.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFTime.java

## 4.463 sai.FWSFVec2d Class Reference

Inheritance diagram for sai.FWSFVec2d:



## Public Member Functions

- **FWSFVec2d** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (double[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (double[] value) throws `ArrayIndexOutOfBoundsException`

## Additional Inherited Members

### 4.463.1 Detailed Description

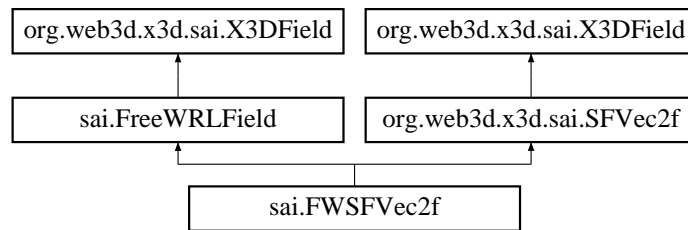
Definition at line 5 of file FWSFVec2d.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFVec2d.java

## 4.464 sai.FWSFVec2f Class Reference

Inheritance diagram for sai.FWSFVec2f:



### Public Member Functions

- **FWSFVec2f** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (float[] value) throws `ArrayIndexOutOfBoundsException`

### Additional Inherited Members

#### 4.464.1 Detailed Description

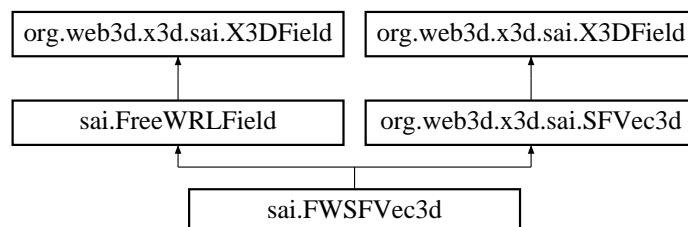
Definition at line 5 of file `FWSFVec2f.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/FWSFVec2f.java`

## 4.465 sai.FWSFVec3d Class Reference

Inheritance diagram for sai.FWSFVec3d:



### Public Member Functions

- **FWSFVec3d** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (double[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (double[] value) throws `ArrayIndexOutOfBoundsException`

## Additional Inherited Members

### 4.465.1 Detailed Description

Definition at line 5 of file FWSFVec3d.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFVec3d.java

## 4.466 sai.FWSFVec3f Class Reference

Inheritance diagram for sai.FWSFVec3f:



## Public Member Functions

- **FWSFVec3f** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- void **getValue** (float[] value) throws `ArrayIndexOutOfBoundsException`
- void **setValue** (float[] value) throws `ArrayIndexOutOfBoundsException`

## Additional Inherited Members

### 4.466.1 Detailed Description

Definition at line 5 of file FWSFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/sai/FWSFVec3f.java

## 4.467 FWSNDMSG Struct Reference

## Data Fields

- long **mtype**
- char **msg** [SNDMAXMSGSIZE]

### 4.467.1 Detailed Description

Definition at line 49 of file sounds.h.

The documentation for this struct was generated from the following files:

- src/lib/scenegraph/sounds.h
- src/sound/soundheader.h

## 4.468 FWTYPE Struct Reference

### Data Fields

- int **itype**
- char **ctype**
- char \* **name**
- int **size\_of**
- FWConstructor **Constructor**
- struct **ArgListType** \* **ConstructorArgs**
- **FWPropertySpec** \* **Properties**
- FWIterator **iterator**
- FWGet **Getter**
- FWSet **Setter**
- char **takesIndexer**
- char **indexerReadOnly**
- **FWFunctionSpec** \* **Functions**

### 4.468.1 Detailed Description

Definition at line 67 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.469 FWVAL Struct Reference

### Data Fields

- char **itype**
- ```
union {  
    int _null  
    double _numeric  
    int _integer  
    int _boolean  
    const char * _string  
    FWPointer _pointer  
    FWPointer _web3dval  
    void * _jobject  
};
```

### 4.469.1 Detailed Description

Definition at line 115 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.470 FXY Struct Reference

### Data Fields

- GLfloat **x**
- GLfloat **y**

### 4.470.1 Detailed Description

Definition at line 221 of file CursorDraw.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/CursorDraw.c

## 4.471 gcgd Struct Reference

### Data Fields

- double **A**
- double **F**
- double **C**
- double **A2**
- double **C2**
- double **Eps2**
- double **Eps21**
- double **Eps25**
- double **C254**
- double **C2DA**
- double **CEE**
- double **CE2**
- double **CEEps2**
- double **TwoCEE**
- double **tem**
- double **ARat1**
- double **ARat2**
- double **BRat1**
- double **BRat2**
- double **B1**
- double **B2**
- double **B3**
- double **B4**
- double **B5**

### 4.471.1 Detailed Description

Definition at line 1359 of file Component\_Geospatial.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geospatial.c

## 4.472 GLUface Struct Reference

### Data Fields

- **GLUface** \* **next**
- **GLUface** \* **prev**
- **GLUhalfEdge** \* **anEdge**
- void \* **data**
- **GLUface** \* **trail**
- GLboolean **marked**
- GLboolean **inside**

### 4.472.1 Detailed Description

Definition at line 126 of file mesh.h.

The documentation for this struct was generated from the following file:

- src/libtess/mesh.h

## 4.473 GLUhalfEdge Struct Reference

### Data Fields

- **GLUhalfEdge** \* **next**
- **GLUhalfEdge** \* **Sym**
- **GLUhalfEdge** \* **Onext**
- **GLUhalfEdge** \* **Lnext**
- **GLUvertex** \* **Org**
- **GLUface** \* **Lface**
- **ActiveRegion** \* **activeRegion**
- int **winding**

### 4.473.1 Detailed Description

Definition at line 138 of file mesh.h.

The documentation for this struct was generated from the following file:

- src/libtess/mesh.h

## 4.474 GLUmesh Struct Reference

### Data Fields

- **GLUvertex vHead**
- **GLUface fHead**
- **GLUhalfEdge eHead**
- **GLUhalfEdge eHeadSym**

### 4.474.1 Detailed Description

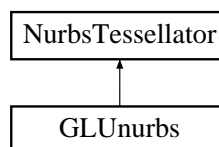
Definition at line 163 of file mesh.h.

The documentation for this struct was generated from the following file:

- src/libtess/mesh.h

## 4.475 GLUnurbs Class Reference

Inheritance diagram for GLUnurbs:



### Public Member Functions

- void **useGLMatrices** (const GLfloat modelMatrix[16], const GLfloat projMatrix[16], const GLint viewport[4])
- void **setSamplingMatrixIdentity** (void)
- void **errorHandler** (int)
- void **bgnrender** (void)
- void **endrender** (void)
- void **setautoloadmode** (INREAL value)
- GLboolean **getautoloadmode** (void)
- void **postError** (int which)
- void **putSurfCallBack** (GLenum which, \_GLUfuncptr fn)
- int **get\_vertices\_call\_back** ()
- void **put\_vertices\_call\_back** (int flag)
- int **get\_callback\_auto\_normal** ()
- void **put\_callback\_auto\_normal** (int flag)
- void **setNurbsCallbackData** (void \*userData)
- void **LOD\_eval\_list** (int level)
- int **is\_callback** ()
- void **put\_callbackFlag** (int flag)



## Data Fields

- errorCallbackType **errorCallback**

## Additional Inherited Members

### 4.475.1 Detailed Description

Definition at line 50 of file glrender.h.

The documentation for this class was generated from the following files:

- src/libnurbs/interface/glrender.h
- src/libnurbs/interface/glrender.cc

## 4.476 GLUtesselator Struct Reference

### Public Member Functions

- **void** (GLAPIENTRY \*callError)(GLenum errnum)
- **void** (GLAPIENTRY \*callCombine)(GLdouble coords[3])
- **void** (GLAPIENTRY \*callBegin)(GLenum type)
- **void** (GLAPIENTRY \*callEdgeFlag)(GLboolean boundaryEdge)
- **void** (GLAPIENTRY \*callVertex)(void \*data)
- **void** (GLAPIENTRY \*callEnd)(void)
- **void** (GLAPIENTRY \*callMesh)( **GLUmesh** \*mesh)
- **void** (GLAPIENTRY \*callBeginData)(GLenum type)
- **void** (GLAPIENTRY \*callEdgeFlagData)(GLboolean boundaryEdge)
- **void** (GLAPIENTRY \*callVertexData)(void \*data)
- **void** (GLAPIENTRY \*callEndData)(void \*polygonData)
- **void** (GLAPIENTRY \*callErrorData)(GLenum errnum)
- **void** (GLAPIENTRY \*callCombineData)(GLdouble coords[3])

## Data Fields

- enum TessState **state**
- **GLUhalfEdge** \* **lastEdge**
- **GLUmesh** \* **mesh**
- GLdouble **normal** [3]
- GLdouble **sUnit** [3]
- GLdouble **tUnit** [3]
- GLdouble **relTolerance**
- GLenum **windingRule**
- GLboolean **fatalError**
- **Dict** \* **dict**
- **PriorityQ** \* **pq**
- **GLUvertex** \* **event**
- void \* **data** [4]
- void GLfloat **weight** [4]

- void GLfloat void \*\* **outData**
- GLboolean **flagBoundary**
- GLboolean **boundaryOnly**
- **GLUface \* lonelyTriList**
- GLboolean **emptyCache**
- int **cacheCount**
- **CachedVertex cache** [TESS\_MAX\_CACHE]
- void \* **polygonData**
- void GLfloat void void \* **polygonData**
- jmp\_buf **env**

#### 4.476.1 Detailed Description

Definition at line 59 of file tess.h.

The documentation for this struct was generated from the following file:

- src/libtess/tess.h

### 4.477 GLUvertex Struct Reference

#### Data Fields

- **GLUvertex \* next**
- **GLUvertex \* prev**
- **GLUhalfEdge \* anEdge**
- void \* **data**
- GLdouble **coords** [3]
- GLdouble **s**
- GLdouble **t**
- long **pqHandle**

#### 4.477.1 Detailed Description

Definition at line 114 of file mesh.h.

The documentation for this struct was generated from the following file:

- src/libtess/mesh.h

### 4.478 GLwDrawingAreaCallbackStruct Struct Reference

#### Data Fields

- int **reason**
- XEvent \* **event**
- Dimension **width**
- Dimension **height**

### 4.478.1 Detailed Description

Definition at line 196 of file GLwDrawA.h.

The documentation for this struct was generated from the following file:

- src/lib/ui/GLwDrawA.h

## 4.479 GLwDrawingAreaPart Struct Reference

### Data Fields

- int \* **attribList**
- XVisualInfo \* **visualInfo**
- Boolean **myList**
- Boolean **myVisual**
- Boolean **installColormap**
- Boolean **allocateBackground**
- Boolean **allocateOtherColors**
- Boolean **installBackground**
- XtCallbackList **ginitCallback**
- XtCallbackList **resizeCallback**
- XtCallbackList **exposeCallback**
- XtCallbackList **inputCallback**
- int **bufferSize**
- int **level**
- Boolean **rgba**
- Boolean **doublebuffer**
- Boolean **stereo**
- int **auxBuffers**
- int **redSize**
- int **greenSize**
- int **blueSize**
- int **alphaSize**
- int **depthSize**
- int **stencilSize**
- int **accumRedSize**
- int **accumGreenSize**
- int **accumBlueSize**
- int **accumAlphaSize**

### 4.479.1 Detailed Description

Definition at line 80 of file GLwDrawAP.h.

The documentation for this struct was generated from the following file:

- src/lib/ui/GLwDrawAP.h

## 4.480 GoP Struct Reference

### Data Fields

- int **drop\_flag**
- unsigned int **tc\_hours**
- unsigned int **tc\_minutes**
- unsigned int **tc\_seconds**
- unsigned int **tc\_pictures**
- int **closed\_gop**
- int **broken\_link**
- char \* **ext\_data**
- char \* **user\_data**

### 4.480.1 Detailed Description

Definition at line 116 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.481 GridAxisRecord Struct Reference

### Data Fields

- unsigned short **sampleType**  
*type of environmental sample*
- unsigned short **dataRepresentation**  
*value that describes data representation*

### 4.481.1 Detailed Description

Definition at line 288 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.482 GridAxisRecordRepresentation0 Struct Reference

### Data Fields

- struct **GridAxisRecord** **myGridAxisRecord**
- unsigned short **numberOfBytes**  
*number of bytes of environmental state data*
- void \* **dataValues**  
*variable length list of data parameters <sup>^^^</sup>this is wrong—need padding as well*

### 4.482.1 Detailed Description

Definition at line 962 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.483 GridAxisRecordRepresentation1 Struct Reference

### Data Fields

- struct **GridAxisRecord** **myGridAxisRecord**
- float **fieldScale**  
*constant scale factor*
- float **fieldOffset**  
*constant offset used to scale grid data*
- unsigned short **numberOfValues**  
*Number of data values.*
- void \* **dataValues**  
*variable length list of data parameters <sup>^^^</sup>this is wrong—need padding as well*

### 4.483.1 Detailed Description

Definition at line 949 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.484 GridAxisRecordRepresentation2 Struct Reference

### Data Fields

- struct **GridAxisRecord** **myGridAxisRecord**
- unsigned short **numberOfValues**  
*number of values*
- void \* **dataValues**  
*variable length list of data parameters <sup>^^^</sup>this is wrong—need padding as well*

### 4.484.1 Detailed Description

Definition at line 918 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.485 gridBoundaryChain Class Reference

### Public Member Functions

- **gridBoundaryChain** ( **gridWrap** \*gr, Int first\_vline\_index, Int n\_vlines, Int \*uline\_indices, Int \*inner\_indices)
- Int **getVlineIndex** (Int i)
- Int **getUlineIndex** (Int i)
- Real **get\_u\_value** (Int i)
- Real **get\_v\_value** (Int i)
- Int **get\_nVlines** ()
- Int **getInnerIndex** (Int i)
- Real **getInner\_u\_value** (Int i)
- Real \* **get\_vertex** (Int i)
- **gridWrap** \* **getGrid** ()
- void **leftEndFan** (Int i, **primStream** \*pStream)
- void **rightEndFan** (Int i, **primStream** \*pStream)
- Int **lookfor** (Real v, Int i1, Int i2)
- void **draw** ()
- void **drawInner** ()

### 4.485.1 Detailed Description

Definition at line 96 of file gridWrap.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/gridWrap.h
- src/libnurbs/nurbtess/gridWrap.cc

## 4.486 GriddedDataPdu Struct Reference

### Data Fields

- struct **SyntheticEnvironmentFamilyPdu** mySyntheticEnvironmentFamilyPdu
- struct **EntityID** environmentalSimulationApplicationID  
*environmental simulation application ID*
- unsigned short **fieldNumber**  
*unique identifier for each piece of enviornmental data*
- unsigned short **pduNumber**  
*sequence number for the total set of PDUS used to transmit the data*
- unsigned short **pduTotal**  
*Total number of PDUS used to transmit the data.*
- unsigned short **coordinateSystem**  
*coordinate system of the grid*
- unsigned char **numberOfGridAxes**  
*number of grid axes for the environmental data*
- unsigned char **constantGrid**  
*are domain grid axes identidal to those of the priveious domain update?*
- struct **EntityType** environmentType

- type of environment*
- struct **Orientation** *orientation*
  - orientation of the data grid*
- long long **sampleTime**
  - valid time of the enviornmental data sample, 64 bit unsigned int*
- unsigned int **totalValues**
  - total number of all data values for all pdus for an environmental sample*
- unsigned char **vectorDimension**
  - total number of data values at each grid point.*
- unsigned short **padding1**
  - padding*
- unsigned char **padding2**
  - padding*
- void \* **gridDataList**
  - Grid data ^^^ This is wrong.*

#### 4.486.1 Detailed Description

Definition at line 1138 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.487 Gridline Struct Reference

### Data Fields

- long **v**
- REAL **vval**
- long **vindex**
- long **ustart**
- long **uend**

#### 4.487.1 Detailed Description

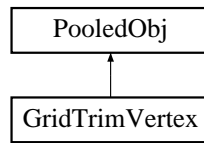
Definition at line 39 of file gridline.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/gridline.h

## 4.488 GridTrimVertex Class Reference

Inheritance diagram for GridTrimVertex:



### Public Member Functions

- void **set** (long, long)
- void **set** (REAL, REAL)
- void **set** ( TrimVertex \*)
- void **clear** (void)
- int **isGridVert** ()
- int **isTrimVert** ()
- void **output** ()

### Data Fields

- TrimVertex \* **t**
- GridVertex \* **g**

#### 4.488.1 Detailed Description

Definition at line 44 of file gridtrimvertex.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/gridtrimvertex.h

## 4.489 GridVertex Struct Reference

### Public Member Functions

- GridVertex (long u, long v)
- void **set** (long u, long v)
- long **nextu** ()
- long **prevu** ()

### Data Fields

- long **gparam** [2]



### 4.489.1 Detailed Description

Definition at line 39 of file gridvertex.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/gridvertex.h

## 4.490 gridWrap Class Reference

### Public Member Functions

- **gridWrap** (Int nUlines, Int nVlines, Real uMin, Real uMax, Real vMin, Real vMax)
- **gridWrap** (Int nUlines, Real \*uvals, Int nVlines, Real \*vvals)
- void **print** ()
- Int **get\_n\_ulines** ()
- Int **get\_n\_vlines** ()
- Real **get\_u\_min** ()
- Real **get\_u\_max** ()
- Real **get\_v\_min** ()
- Real **get\_v\_max** ()
- Real **get\_u\_value** (Int i)
- Real **get\_v\_value** (Int j)
- Real \* **get\_u\_values** ()
- Real \* **get\_v\_values** ()
- void **outputFanWithPoint** (Int v, Int uleft, Int uright, Real vert[2], **primStream** \*pStream)
- void **draw** ()
- Int **isUniform** ()

### 4.490.1 Detailed Description

Definition at line 42 of file gridWrap.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/gridWrap.h
- src/libnurbs/nurbtess/gridWrap.cc

## 4.491 GUINamedType Struct Reference

### Data Fields

- char \* **name**
- int **type**

### 4.491.1 Detailed Description

Definition at line 2279 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.492 GUIScreen Struct Reference

### Data Fields

- int **X**
- int **Y**

### 4.492.1 Detailed Description

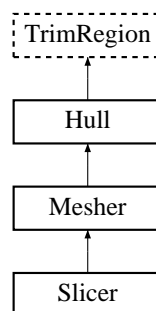
Definition at line 3077 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.493 Hull Class Reference

Inheritance diagram for Hull:



### Public Member Functions

- void **init** (void)
- **GridTrimVertex** \* **nextlower** ( **GridTrimVertex** \*)
- **GridTrimVertex** \* **nextupper** ( **GridTrimVertex** \*)

## Additional Inherited Members

### 4.493.1 Detailed Description

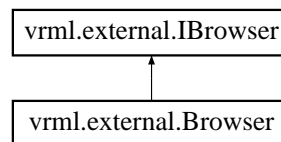
Definition at line 47 of file hull.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/hull.h
- src/libnurbs/internals/hull.cc

## 4.494 vrml.external.IBrowser Interface Reference

Inheritance diagram for vrml.external.IBrowser:



## Public Member Functions

- String **getName** ()
- String **getVersion** ()
- int **getEncoding** ()
- float **getCurrentSpeed** ()
- float **getCurrentFrameRate** ()
- String **getWorldURL** ()
- void **replaceWorld** ( **Node**[] nodes) throws IllegalArgumentException
- void **loadURL** (String[] url, String[] parameter)
- void **setDescription** (String description)
- String **getDescription** ()
- String **getRenderingProperties** ()
- **Node**[] **createVrmlFromString** (String vrmlSyntax) throws InvalidVrmlException
- void **createVrmlFromURL** (String[] url, **Node** node, String event)
- **Node** **getNode** (String name)
- void **addRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws IllegalArgumentException↵
- void **deleteRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws IllegalArgumentException↵
- void **beginUpdate** ()
- void **endUpdate** ()
- void **initialize** ()
- void **shutdown** ()
- void **firstViewpoint** ()
- void **lastViewpoint** ()
- void **nextViewpoint** ()
- void **previousViewpoint** ()
- String **createNode** (String name)

- String **createProto** (String name)
- String **updateNamedNode** (String name, **Node** node)
- String **removeNamedNode** (String name)
- String **getProtoDeclaration** (String name)
- String **removeProtoDeclaration** (String name)
- String **updateProtoDeclaration** (String name, String npdecl)
- String **getNodeFieldDefs** ( **Node** myn)
- String **getNodeDEFName** ( **Node** myn)

#### 4.494.1 Detailed Description

Definition at line 6 of file IBrowser.java.

The documentation for this interface was generated from the following file:

- src/java/vrml/external/IBrowser.java

### 4.495 IffAtcNavAidsLayer1Pdu Struct Reference

#### Data Fields

- struct **DistributedEmissionsFamilyPdu** **myDistributedEmissionsFamilyPdu**
- struct **EntityID** **emittingEntityId**  
*ID of the entity that is the source of the emissions.*
- struct **EventID** **eventID**  
*Number generated by the issuing simulation to associate realted events.*
- struct **Vector3Float** **location**  
*Location wrt entity.*
- struct **SystemID** **systemID**  
*System ID information.*
- unsigned short **pad2**  
*padding*
- struct **IffFundamentalData** **fundamentalParameters**  
*fundamental parameters*

#### 4.495.1 Detailed Description

Definition at line 1060 of file DIS.h.

#### 4.495.2 Field Documentation

#### 4.495.2.1 location

```
struct Vector3Float IffAtcNavAidsLayer1Pdu::location
```

Location wrt entity.

There is some ambuigiuity in the standard here, but this is the order it is listed in the table.

Definition at line 1067 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.496 IffAtcNavAidsLayer2Pdu Struct Reference

### Data Fields

- struct **IffAtcNavAidsLayer1Pdu** myIffAtcNavAidsLayer1Pdu
- struct **LayerHeader** layerHeader  
*layer header*
- struct **BeamData** beamData  
*beam data*
- struct **BeamData** secondaryOperationalData  
*Secondary operational data, 5.2.57.*
- void \* **fundamentalIffParameters**  
*variable length list of fundamental parameters.*

#### 4.496.1 Detailed Description

Definition at line 1530 of file DIS.h.

#### 4.496.2 Field Documentation

##### 4.496.2.1 fundamentalIffParameters

```
void* IffAtcNavAidsLayer2Pdu::fundamentalIffParameters
```

variable length list of fundamental parameters.

^^^This is wrong

Definition at line 1539 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.497 IffFundamentalData Struct Reference

### Data Fields

- unsigned char **systemStatus**  
*system status*
- unsigned char **alternateParameter4**  
*Alternate parameter 4.*
- unsigned char **informationLayers**  
*eight boolean fields*
- unsigned char **modifier**  
*enumeration*
- unsigned short **parameter1**  
*parameter, enumeration*
- unsigned short **parameter2**  
*parameter, enumeration*
- unsigned short **parameter3**  
*parameter, enumeration*
- unsigned short **parameter4**  
*parameter, enumeration*
- unsigned short **parameter5**  
*parameter, enumeration*
- unsigned short **parameter6**  
*parameter, enumeration*

### 4.497.1 Detailed Description

Definition at line 358 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.498 iiglobal Struct Reference

### Data Structures

- struct **tBindable**
- struct **tcollision**
- struct **tcommon**
- struct **tComponent\_CubeMapTexturing**
- struct **tComponent\_EnvironSensor**
- struct **tComponent\_Followers**
- struct **tComponent\_Geometry3D**
- struct **tComponent\_Geospatial**
- struct **tComponent\_HAnim**
- struct **tComponent\_KeyDevice**
- struct **tComponent\_Layering**

- struct **tComponent\_Layout**
- struct **tComponent\_NURBS**
- struct **tComponent\_ParticleSystems**
- struct **tComponent\_Picking**
- struct **tComponent\_ProgrammableShaders**
- struct **tComponent\_Rendering**
- struct **tComponent\_RigidBodyPhysics**
- struct **tComponent\_Shape**
- struct **tComponent\_Sound**
- struct **tComponent\_Text**
- struct **tComponent\_VolumeRendering**
- struct **tComponent\_VRML1**
- struct **tConsoleMessage**
- struct **tCParse**
- struct **tCParseParser**
- struct **tCRoutes**
- struct **tCScripts**
- struct **tCursorDraw**
- struct **tdisplay**
- struct **tEAI\_C\_CommonFunctions**
- struct **tEAICore**
- struct **tEAIEventsIn**
- struct **tEAHelpers**
- struct **tFrustum**
- struct **tinternalc**
- struct **tLoadTextures**
- struct **tMainloop**
- struct **tOpenGL\_Utils**
- struct **tPluginSocket**
- struct **tpluginUtils**
- struct **tProdCon**
- struct **tRenderFuncs**
- struct **tRenderTextures**
- struct **tresources**
- struct **tSensInterps**
- struct **tSnapshot**
- struct **tstatusbar**
- struct **tStreamPoly**
- struct **tTess**
- struct **tTextures**
- struct **tthreads**
- struct **tViewer**
- struct **tX3DParser**

## Data Fields

- struct **iiglobal::tdisplay** display
- struct **iiglobal::tinternalc** internalc
- struct **iiglobal::tresources** resources
- struct **iiglobal::tthreads** threads
- struct **iiglobal::tSnapshot** Snapshot
- struct **iiglobal::tEAI\_C\_CommonFunctions** EAI\_C\_CommonFunctions
- struct **iiglobal::tEAIEventsIn** EAIEventsIn
- struct **iiglobal::tEAHelpers** EAHelpers

- struct **iiglobal::tEAICore** EAICore
- struct **iiglobal::tSensInterps** SensInterps
- struct **iiglobal::tConsoleMessage** ConsoleMessage
- struct **iiglobal::tMainloop** Mainloop
- struct **iiglobal::tProdCon** ProdCon
- struct **iiglobal::tFrustum** Frustum
- struct **iiglobal::tLoadTextures** LoadTextures
- struct **iiglobal::tOpenGL\_Utils** OpenGL\_Utils
- struct **iiglobal::tRenderTextures** RenderTextures
- struct **iiglobal::tTextures** Textures
- struct **iiglobal::tPluginSocket** PluginSocket
- struct **iiglobal::tpluginUtils** pluginUtils
- struct **iiglobal::tcollision** collision
- struct **iiglobal::tComponent\_CubeMapTexturing** Component\_CubeMapTexturing
- struct **iiglobal::tComponent\_EnvironSensor** Component\_EnvironSensor
- struct **iiglobal::tComponent\_Geometry3D** Component\_Geometry3D
- struct **iiglobal::tComponent\_Geospatial** Component\_Geospatial
- struct **iiglobal::tComponent\_HAnim** Component\_HAnim
- struct **iiglobal::tComponent\_Layering** Component\_Layering
- struct **iiglobal::tComponent\_Layout** Component\_Layout
- struct **iiglobal::tComponent\_NURBS** Component\_NURBS
- struct **iiglobal::tComponent\_ParticleSystems** Component\_ParticleSystems
- struct **iiglobal::tComponent\_ProgrammableShaders** Component\_ProgrammableShaders
- struct **iiglobal::tComponent\_RigidBodyPhysics** Component\_RigidBodyPhysics
- struct **iiglobal::tComponent\_Followers** Component\_Followers
- struct **iiglobal::tComponent\_KeyDevice** Component\_KeyDevice
- struct **iiglobal::tComponent\_Picking** Component\_Picking
- struct **iiglobal::tComponent\_Rendering** Component\_Rendering
- struct **iiglobal::tComponent\_Shape** Component\_Shape
- struct **iiglobal::tComponent\_Sound** Component\_Sound
- struct **iiglobal::tComponent\_Text** Component\_Text
- struct **iiglobal::tComponent\_VRML1** Component\_VRML1
- struct **iiglobal::tComponent\_VolumeRendering** Component\_VolumeRendering
- struct **iiglobal::tRenderFuncs** RenderFuncs
- struct **iiglobal::tStreamPoly** StreamPoly
- struct **iiglobal::tTess** Tess
- struct **iiglobal::tViewer** Viewer
- struct **iiglobal::tstatusbar** statusbar
- struct **iiglobal::tCParse** CParse
- struct **iiglobal::tCParseParser** CParseParser
- struct **iiglobal::tCRoutes** CRoutes
- struct **iiglobal::tCScripts** CScripts
- struct **iiglobal::tBindable** Bindable
- struct **iiglobal::tX3DParser** X3DParser
- struct **iiglobal::tcommon** common
- struct **iiglobal::tCursorDraw** CursorDraw

#### 4.498.1 Detailed Description

Definition at line 41 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`



## 4.499 IMEXPORT Struct Reference

### Data Fields

- struct **X3D\_Node** \* **nodeptr**
- char \* **inlinename**
- char \* **mxname**
- char \* **as**

### 4.499.1 Detailed Description

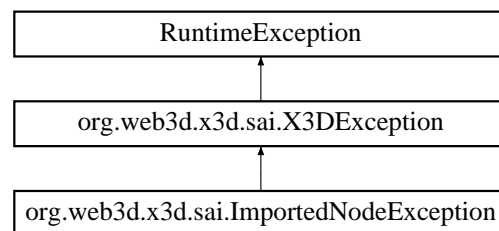
Definition at line 242 of file CParseParser.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.h

## 4.500 org.web3d.x3d.sai.ImportedException Class Reference

Inheritance diagram for org.web3d.x3d.sai.ImportedException:



### Public Member Functions

- **ImportedException** (String msg)

### 4.500.1 Detailed Description

Definition at line 3 of file ImportedException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/ImportedException.java

## 4.501 initialRouteStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **from**
- size\_t **totalptr**

#### 4.501.1 Detailed Description

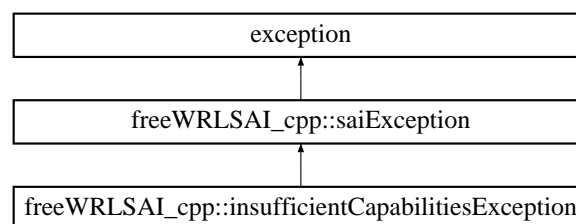
Definition at line 201 of file CRoutes.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.c

### 4.502 freeWRLSAI\_cpp::insufficientCapabilitiesException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::insufficientCapabilitiesException:



#### Public Member Functions

- virtual const char \* **what** ()

#### Additional Inherited Members

#### 4.502.1 Detailed Description

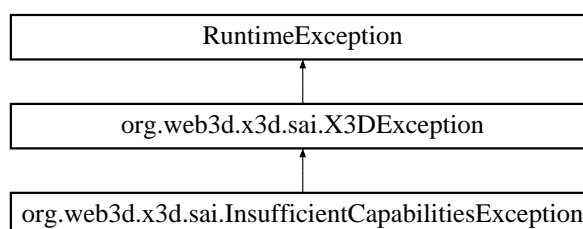
Definition at line 118 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

### 4.503 org.web3d.x3d.sai.InsufficientCapabilitiesException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InsufficientCapabilitiesException:



## Public Member Functions

- **InsufficientCapabilitiesException** (String msg)

### 4.503.1 Detailed Description

Definition at line 3 of file InsufficientCapabilitiesException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InsufficientCapabilitiesException.java

## 4.504 IntercomCommunicationsParameters Struct Reference

### Data Fields

- unsigned short **recordType**  
*Type of intercom parameters record.*
- unsigned short **recordLength**  
*length of record*
- unsigned int **recordSpecificField**  
*Jerks.*

### 4.504.1 Detailed Description

Definition at line 452 of file DIS.h.

### 4.504.2 Field Documentation

#### 4.504.2.1 recordSpecificField

```
unsigned int IntercomCommunicationsParameters::recordSpecificField
```

Jerks.

Looks like the committee is forcing a lookup of the record type parameter to find out how long the field is. This is a placeholder.

Definition at line 458 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.505 IntercomControlPdu Struct Reference

### Data Fields

- struct **RadioCommunicationsFamilyPdu** **myRadioCommunicationsFamilyPdu**
- unsigned char **controlType**  
*control type*
- unsigned char **communicationsChannelType**  
*control type*
- struct **EntityID** **sourceEntityID**  
*Source entity ID.*
- unsigned char **sourceCommunicationsDeviceID**  
*The specific intercom device being simulated within an entity.*
- unsigned char **sourceLineID**  
*Line number to which the intercom control refers.*
- unsigned char **transmitPriority**  
*priority of this message relative to transmissions from other intercom devices*
- unsigned char **transmitLineState**  
*current transmit state of the line*
- unsigned char **command**  
*detailed type requested.*
- struct **EntityID** **masterEntityID**  
*eid of the entity that has created this intercom channel.*
- unsigned short **masterCommunicationsDeviceID**  
*specific intercom device that has created this intercom channel*
- unsigned int **intercomParametersLength**  
*number of intercom parameters*
- void \* **intercomParameters**  
^^^ *This is wrong—the length of the data field is variable.*

### 4.505.1 Detailed Description

Definition at line 1897 of file DIS.h.

### 4.505.2 Field Documentation

#### 4.505.2.1 intercomParameters

```
void* IntercomControlPdu::intercomParameters
```

^^^This is wrong—the length of the data field is variable.

Using a long for now.

Definition at line 1922 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.506 IntercomSignalPdu Struct Reference

### Data Fields

- struct **RadioCommunicationsFamilyPdu** **myRadioCommunicationsFamilyPdu**
- struct **EntityID** **entityID**  
*entity ID*
- unsigned short **communicationsDeviceID**  
*ID of communications device.*
- unsigned short **encodingScheme**  
*encoding scheme*
- unsigned short **tdlType**  
*tactical data link type*
- unsigned int **sampleRate**  
*sample rate*
- unsigned short **dataLength**  
*data length*
- unsigned short **samples**  
*samples*
- void \* **data**  
*data bytes*

### 4.506.1 Detailed Description

Definition at line 897 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.507 intersection\_info Struct Reference

### Data Fields

- float **dist**
- float **p** [3]
- float **normal** [3]
- float **texcoord** [3]

### 4.507.1 Detailed Description

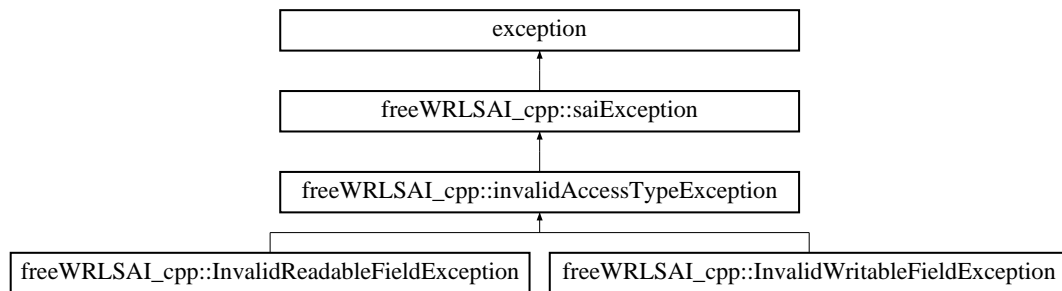
Definition at line 121 of file Polyrep.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Polyrep.h

## 4.508 freeWRLSAI\_cpp::invalidAccessTypeException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidAccessTypeException:



### Public Member Functions

- virtual const char \* **what** ()

### Additional Inherited Members

#### 4.508.1 Detailed Description

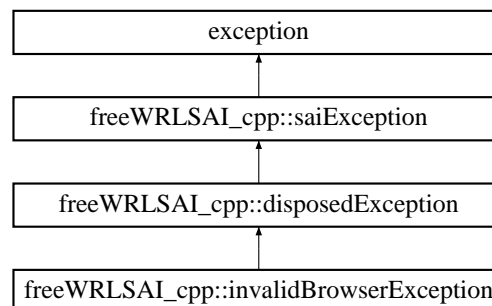
Definition at line 129 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.509 freeWRLSAI\_cpp::invalidBrowserException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidBrowserException:



### Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.509.1 Detailed Description

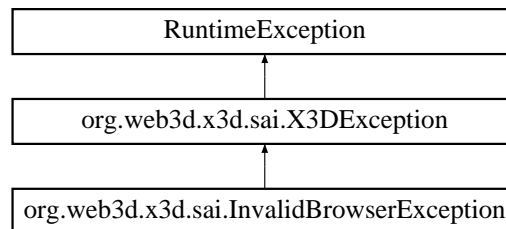
Definition at line 140 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.510 org.web3d.x3d.sai.InvalidBrowserException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidBrowserException:



## Public Member Functions

- **InvalidBrowserException** (String msg)

### 4.510.1 Detailed Description

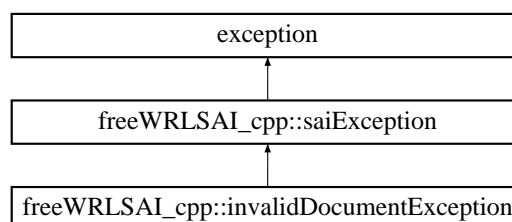
Definition at line 3 of file InvalidBrowserException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidBrowserException.java

## 4.511 freeWRLSAI\_cpp::invalidDocumentException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidDocumentException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.511.1 Detailed Description

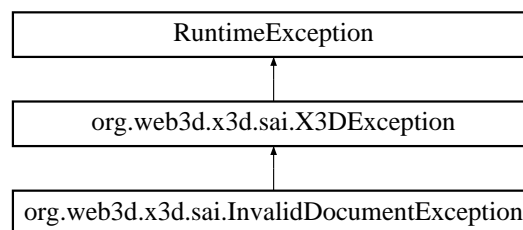
Definition at line 151 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.512 org.web3d.x3d.sai.InvalidDocumentException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidDocumentException:



## Public Member Functions

- **InvalidDocumentException** (String msg)

### 4.512.1 Detailed Description

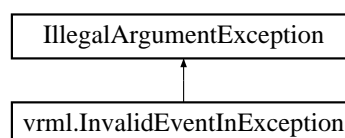
Definition at line 3 of file InvalidDocumentException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidDocumentException.java

## 4.513 vrml.InvalidEventInException Class Reference

Inheritance diagram for vrml.InvalidEventInException:





## Public Member Functions

- **InvalidEventInException** (String s)

### 4.513.1 Detailed Description

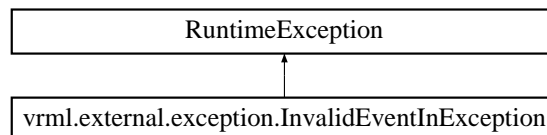
Definition at line 6 of file InvalidEventInException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidEventInException.java

## 4.514 vrml.external.exception.InvalidEventInException Class Reference

Inheritance diagram for vrml.external.exception.InvalidEventInException:



## Public Member Functions

- **InvalidEventInException** ()  
Constructs an **InvalidEventInException** (p. 341) with no detail message.
- **InvalidEventInException** (String s)  
Constructs an **InvalidEventInException** (p. 341) with the specified detail message.

### 4.514.1 Detailed Description

Definition at line 3 of file InvalidEventInException.java.

### 4.514.2 Constructor & Destructor Documentation

#### 4.514.2.1 InvalidEventInException()

```
vrml.external.exception.InvalidEventInException.InvalidEventInException (
    String s ) [inline]
```

Constructs an **InvalidEventInException** (p. 341) with the specified detail message.

A detail message is a String that describes this particular exception.

#### Parameters

s	the detail message
---	--------------------

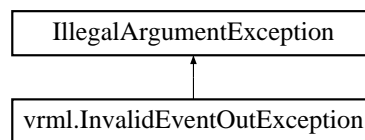
Definition at line 17 of file InvalidEventInException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/exception/InvalidEventInException.java

## 4.515 vrml.InvalidEventOutException Class Reference

Inheritance diagram for vrml.InvalidEventOutException:



### Public Member Functions

- **InvalidEventOutException** (String s)

### 4.515.1 Detailed Description

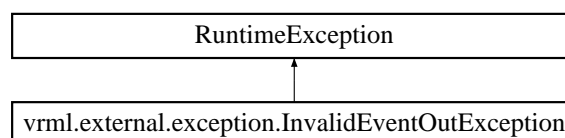
Definition at line 6 of file InvalidEventOutException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidEventOutException.java

## 4.516 vrml.external.exception.InvalidEventOutException Class Reference

Inheritance diagram for vrml.external.exception.InvalidEventOutException:



## Public Member Functions

- `InvalidEventOutException` (String s)

### 4.516.1 Detailed Description

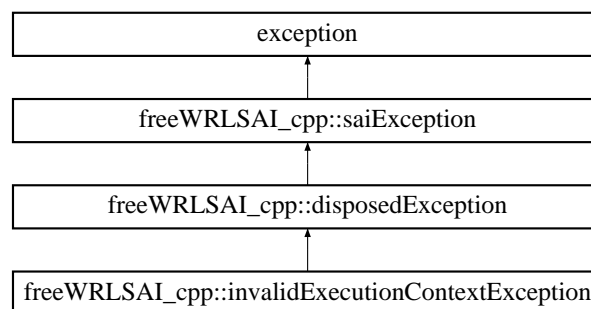
Definition at line 3 of file `InvalidEventOutException.java`.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/exception/InvalidEventOutException.java`

## 4.517 freeWRLSAI\_cpp::invalidExecutionContextException Class Reference

Inheritance diagram for `freeWRLSAI_cpp::invalidExecutionContextException`:



## Public Member Functions

- `virtual const char * what ()`

## Additional Inherited Members

### 4.517.1 Detailed Description

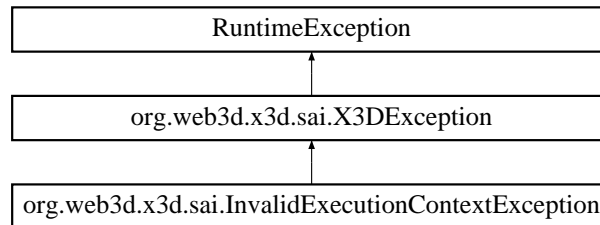
Definition at line 253 of file `SAlexception.h`.

The documentation for this class was generated from the following file:

- `src/SAI_Cpp/SAlexception.h`

## 4.518 org.web3d.x3d.sai.InvalidExecutionContextException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidExecutionContextException:



### Public Member Functions

- **InvalidExecutionContextException** (String msg)

#### 4.518.1 Detailed Description

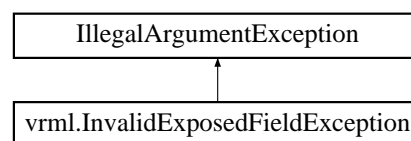
Definition at line 3 of file InvalidExecutionContextException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidExecutionContextException.java

## 4.519 vrml.InvalidExposedFieldException Class Reference

Inheritance diagram for vrml.InvalidExposedFieldException:



### Public Member Functions

- **InvalidExposedFieldException** (String s)

#### 4.519.1 Detailed Description

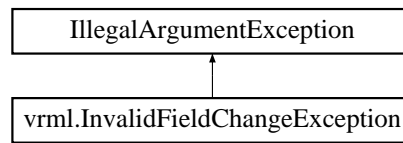
Definition at line 6 of file InvalidExposedFieldException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidExposedFieldException.java

## 4.520 vrml.InvalidFieldChangeException Class Reference

Inheritance diagram for vrml.InvalidFieldChangeException:



### Public Member Functions

- **InvalidFieldChangeException** (String s)

#### 4.520.1 Detailed Description

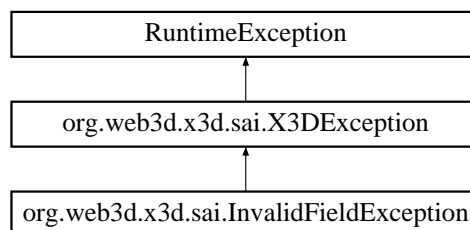
Definition at line 6 of file InvalidFieldChangeException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidFieldChangeException.java

## 4.521 org.web3d.x3d.sai.InvalidFieldException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidFieldException:



### Public Member Functions

- **InvalidFieldException** (String msg)

#### 4.521.1 Detailed Description

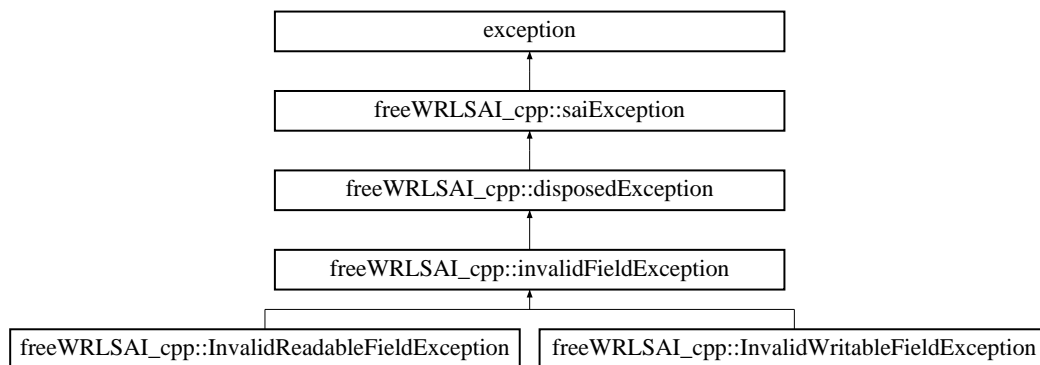
Definition at line 3 of file InvalidFieldException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidFieldException.java

## 4.522 freeWRLSAI\_cpp::invalidFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidFieldException:



### Public Member Functions

- virtual const char \* **what** ()

### Additional Inherited Members

#### 4.522.1 Detailed Description

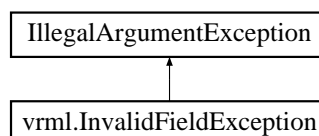
Definition at line 264 of file SAexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAexception.h

## 4.523 vrml.InvalidFieldException Class Reference

Inheritance diagram for vrml.InvalidFieldException:



### Public Member Functions

- **InvalidFieldException** (String s)

### 4.523.1 Detailed Description

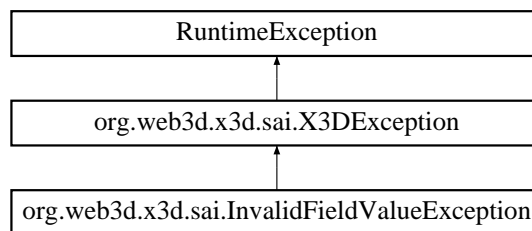
Definition at line 6 of file InvalidFieldValueException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidFieldValueException.java

## 4.524 org.web3d.x3d.sai.InvalidFieldValueException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidFieldValueException:



### Public Member Functions

- **InvalidFieldValueException** (String msg)

### 4.524.1 Detailed Description

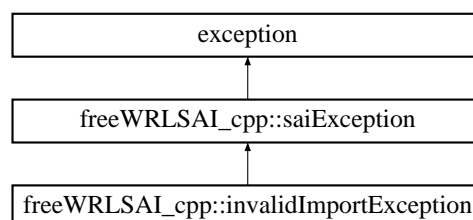
Definition at line 3 of file InvalidFieldValueException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidFieldValueException.java

## 4.525 freeWRLSAI\_cpp::invalidImportException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidImportException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.525.1 Detailed Description

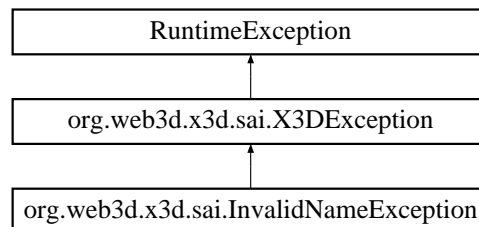
Definition at line 107 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.526 org.web3d.x3d.sai.InvalidNameException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidNameException:



## Public Member Functions

- **InvalidNameException** (String str)

### 4.526.1 Detailed Description

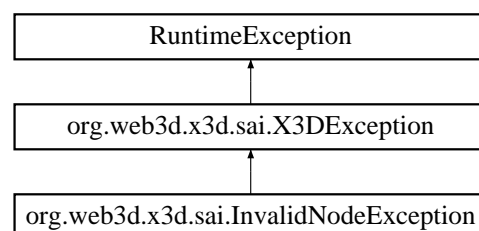
Definition at line 3 of file InvalidNameException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidNameException.java

## 4.527 org.web3d.x3d.sai.InvalidNodeException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidNodeException:





## Public Member Functions

- **InvalidNodeException** (String str)

### 4.527.1 Detailed Description

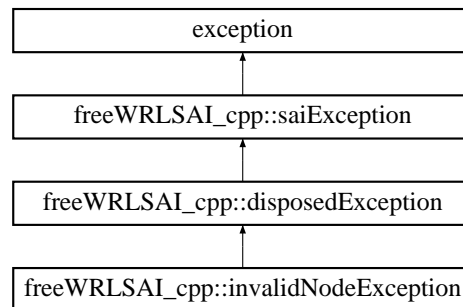
Definition at line 3 of file InvalidNodeException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidNodeException.java

## 4.528 freeWRLSAI\_cpp::invalidNodeException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidNodeException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.528.1 Detailed Description

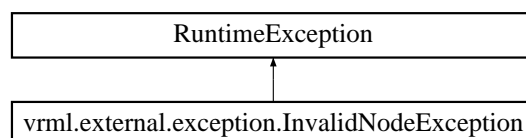
Definition at line 275 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.529 vrml.external.exception.InvalidNodeException Class Reference

Inheritance diagram for vrml.external.exception.InvalidNodeException:



## Public Member Functions

- **InvalidNodeException ()**  
Constructs an **InvalidNodeException** (p. 349) with no detail message.
- **InvalidNodeException (String s)**  
Constructs an **InvalidNodeException** (p. 349) with the specified detail message.

### 4.529.1 Detailed Description

Definition at line 3 of file InvalidNodeException.java.

### 4.529.2 Constructor & Destructor Documentation

#### 4.529.2.1 InvalidNodeException()

```
vrml.external.exception.InvalidNodeException.InvalidNodeException (
    String s ) [inline]
```

Constructs an **InvalidNodeException** (p. 349) with the specified detail message.

A detail message is a String that describes this particular exception.

#### Parameters

s	the detail message
---	--------------------

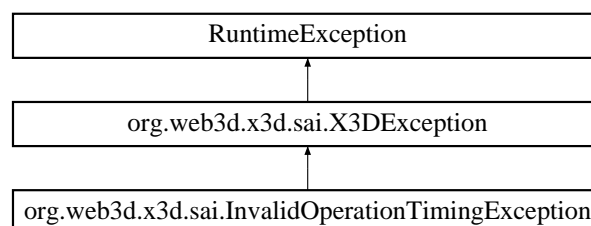
Definition at line 17 of file InvalidNodeException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/exception/InvalidNodeException.java

## 4.530 org.web3d.x3d.sai.InvalidOperationTimingException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidOperationTimingException:



## Public Member Functions

- **InvalidOperationTimingException** (String msg)

### 4.530.1 Detailed Description

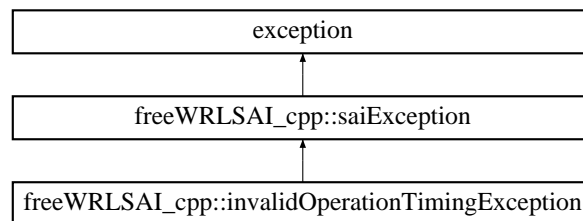
Definition at line 3 of file InvalidOperationTimingException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidOperationTimingException.java

## 4.531 freeWRLSAI\_cpp::invalidOperationTimingException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidOperationTimingException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.531.1 Detailed Description

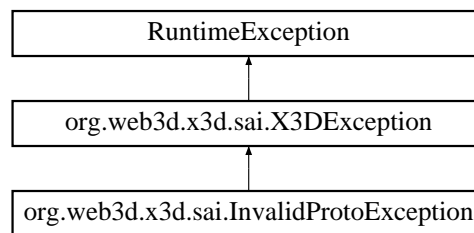
Definition at line 162 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.532 org.web3d.x3d.sai.InvalidProtoException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidProtoException:



### Public Member Functions

- **InvalidProtoException** (String msg)

#### 4.532.1 Detailed Description

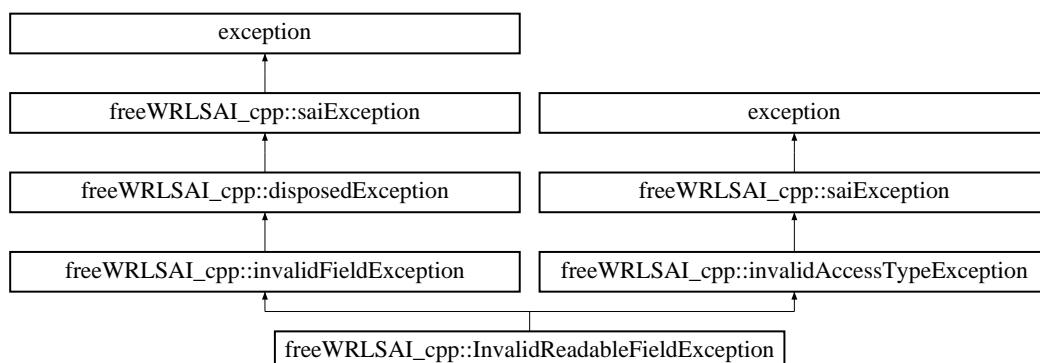
Definition at line 3 of file InvalidProtoException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidProtoException.java

## 4.533 freeWRLSAI\_cpp::InvalidReadableFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::InvalidReadableFieldException:



### Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.533.1 Detailed Description

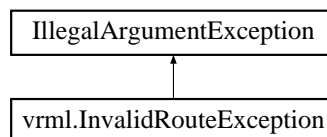
Definition at line 298 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.534 vrml.InvalidRouteException Class Reference

Inheritance diagram for vrml.InvalidRouteException:



## Public Member Functions

- **InvalidRouteException** (String s)

### 4.534.1 Detailed Description

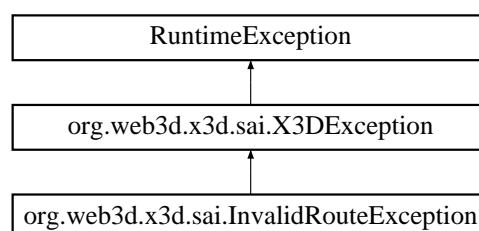
Definition at line 6 of file InvalidRouteException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidRouteException.java

## 4.535 org.web3d.x3d.sai.InvalidRouteException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidRouteException:



## Public Member Functions

- **InvalidRouteException** (String msg)

### 4.535.1 Detailed Description

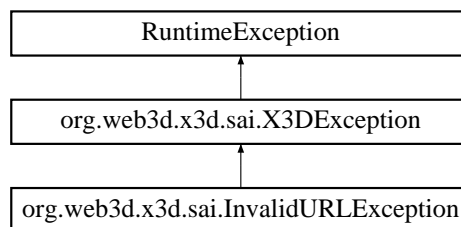
Definition at line 3 of file InvalidRouteException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidRouteException.java

## 4.536 org.web3d.x3d.sai.InvalidURLException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidURLException:



## Public Member Functions

- **InvalidURLException** (String str)

### 4.536.1 Detailed Description

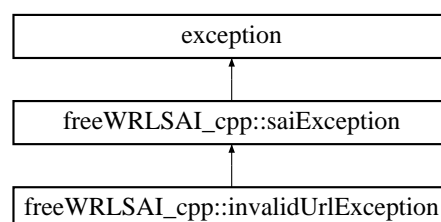
Definition at line 3 of file InvalidURLException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidURLException.java

## 4.537 freeWRLSAI\_cpp::invalidUrlException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidUrlException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.537.1 Detailed Description

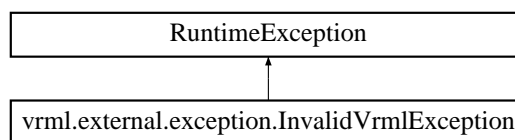
Definition at line 173 of file SAexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAexception.h

## 4.538 vrml.external.exception.InvalidVrmlException Class Reference

Inheritance diagram for vrml.external.exception.InvalidVrmlException:



## Public Member Functions

- **InvalidVrmlException** ()  
*Constructs an **InvalidVrmlException** (p. 355) with no detail message.*
- **InvalidVrmlException** (String s)  
*Constructs an **InvalidVrmlException** (p. 355) with the specified detail message.*

### 4.538.1 Detailed Description

Definition at line 3 of file InvalidVrmlException.java.

### 4.538.2 Constructor & Destructor Documentation

#### 4.538.2.1 InvalidVrmlException()

```
vrml.external.exception.InvalidVrmlException.InvalidVrmlException (
    String s ) [inline]
```

Constructs an **InvalidVrmlException** (p. 355) with the specified detail message.

A detail message is a String that describes this particular exception.

## Parameters

s	the detail message
---	--------------------

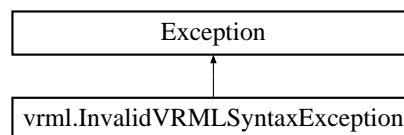
Definition at line 17 of file InvalidVrmlException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/exception/InvalidVrmlException.java

## 4.539 vrml.InvalidVRMLSyntaxException Class Reference

Inheritance diagram for vrml.InvalidVRMLSyntaxException:



### Public Member Functions

- `InvalidVRMLSyntaxException` (String s)

### 4.539.1 Detailed Description

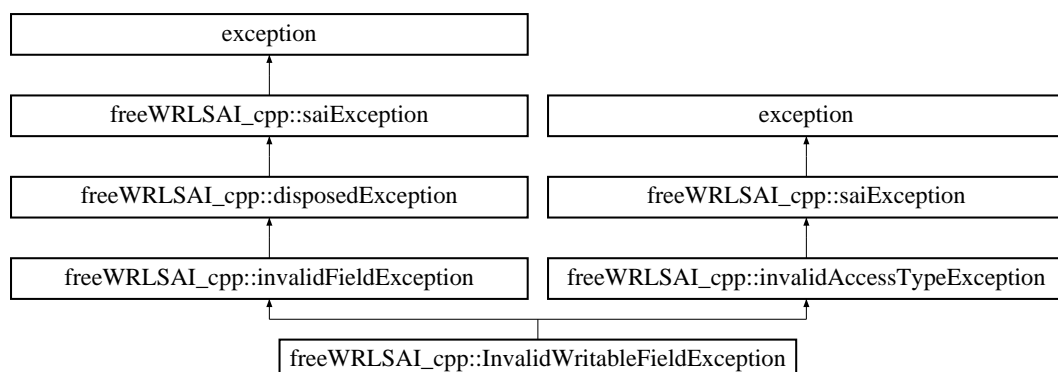
Definition at line 3 of file InvalidVRMLSyntaxException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidVRMLSyntaxException.java

## 4.540 freeWRLSAI\_cpp::InvalidWritableFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::InvalidWritableFieldException:





## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.540.1 Detailed Description

Definition at line 287 of file SAexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAexception.h

## 4.541 freeWRLSAI\_cpp::invalidX3DException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidX3DException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.541.1 Detailed Description

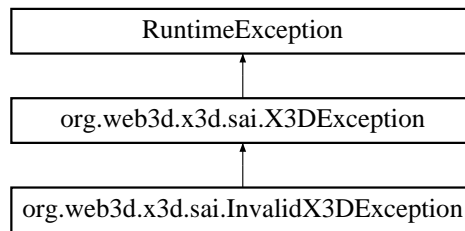
Definition at line 184 of file SAexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAexception.h

## 4.542 org.web3d.x3d.sai.InvalidX3DException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidX3DException:



### Public Member Functions

- **InvalidX3DException** (String str)

#### 4.542.1 Detailed Description

Definition at line 3 of file InvalidX3DException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/InvalidX3DException.java

## 4.543 vrml.InvalidX3DSyntaxException Class Reference

Inheritance diagram for vrml.InvalidX3DSyntaxException:



### Public Member Functions

- **InvalidX3DSyntaxException** (String s)

#### 4.543.1 Detailed Description

Definition at line 3 of file InvalidX3DSyntaxException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/InvalidX3DSyntaxException.java

## 4.544 IsGroupOfPdu Struct Reference

### Data Fields

- struct **EntityManagementFamilyPdu** **myEntityManagementFamilyPdu**
- struct **EntityID** **groupEntityID**  
*ID of aggregated entities.*
- unsigned char **groupedEntityCategory**  
*type of entities constituting the group*
- unsigned char **numberOfGroupedEntities**  
*Number of individual entities constituting the group.*
- unsigned int **pad2**  
*padding*
- double **latitude**  
*latitude*
- double **longitude**  
*longitude*
- void \* **groupedEntityDescriptions**  
*GED records about each individual entity in the group.*

### 4.544.1 Detailed Description

Definition at line 1424 of file DIS.h.

### 4.544.2 Field Documentation

#### 4.544.2.1 groupedEntityDescriptions

```
void* IsGroupOfPdu::groupedEntityDescriptions
```

GED records about each individual entity in the group.

^^^this is wrong—need a database lookup to find the actual size of the list elements

Definition at line 1439 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.545 IsPartOfPdu Struct Reference

### Data Fields

- struct **EntityManagementFamilyPdu** **myEntityManagementFamilyPdu**
- struct **EntityID** **originatingEntityID**  
*ID of entity originating PDU.*
- struct **EntityID** **receivingEntityID**  
*ID of entity receiving PDU.*
- struct **Relationship** **relationship**  
*relationship of joined parts*
- struct **Vector3Float** **partLocation**  
*location of part; centroid of part in host's coordinate system.*
- struct **NamedLocation** **namedLocationID**  
*named location*
- struct **EntityType** **partEntityType**  
*entity type*

### 4.545.1 Detailed Description

Definition at line 2091 of file DIS.h.

### 4.545.2 Field Documentation

#### 4.545.2.1 partLocation

```
struct Vector3Float IsPartOfPdu::partLocation
```

location of part; centroid of part in host's coordinate system.

x=range, y=bearing, z=0

Definition at line 2100 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.546 ivec2 Struct Reference

### Data Fields

- int **X**
- int **Y**

### 4.546.1 Detailed Description

Definition at line 66 of file display.c.

The documentation for this struct was generated from the following files:

- src/lib/display.c
- src/lib/scenegraph/Component\_Text.c
- src/lib/scenegraph/RenderFuncs.h

## 4.547 ivec4 Struct Reference

### Data Fields

- int **X**
- int **Y**
- int **W**
- int **H**

### 4.547.1 Detailed Description

Definition at line 65 of file display.c.

The documentation for this struct was generated from the following files:

- src/lib/display.c
- src/lib/scenegraph/Component\_Text.c
- src/lib/scenegraph/RenderFuncs.h

## 4.548 Jarcloc Class Reference

### Public Member Functions

- void **init** (Arc\_ptr a, long first, long last)
- **TrimVertex** \* **getnextpt** (void)
- **TrimVertex** \* **getprevpt** (void)
- void **reverse** ()

### 4.548.1 Detailed Description

Definition at line 41 of file jarcloc.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/jarcloc.h

## 4.549 JMATRIX Struct Reference

### Data Fields

- double **mat** [16]
- float **normalmat** [9]

### 4.549.1 Detailed Description

Definition at line 495 of file Component\_HAnim.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_HAnim.c

## 4.550 JSON\_config Struct Reference

The structure used to configure a JSON parser object.

### Data Fields

- JSON\_parser\_callback **callback**  
*Pointer to a callback, called when the parser has something to tell the user.*
- void \* **callback\_ctx**  
*Callback context - client-specified data to pass to the callback function.*
- int **depth**  
*Specifies the levels of nested JSON to allow.*
- int **allow\_comments**  
*To allow C style comments in JSON, set to non-zero.*
- int **handle\_floats\_manually**  
*To decode floating point numbers manually set this parameter to non-zero.*
- JSON\_malloc\_t **malloc**  
*The memory allocation routine, which must be semantically compatible with malloc(3).*
- JSON\_free\_t **free**  
*The memory deallocation routine, which must be semantically compatible with free(3).*

### 4.550.1 Detailed Description

The structure used to configure a JSON parser object.

Definition at line 121 of file cson\_amalgamation\_core.c.

### 4.550.2 Field Documentation

#### 4.550.2.1 callback

```
JSON_parser_callback JSON_config::callback
```

Pointer to a callback, called when the parser has something to tell the user.

This parameter may be NULL. In this case the input is merely checked for validity.

Definition at line 126 of file cson\_amalgamation\_core.c.

#### 4.550.2.2 callback\_ctx

```
void* JSON_config::callback_ctx
```

Callback context - client-specified data to pass to the callback function.

This parameter may be NULL.

Definition at line 131 of file cson\_amalgamation\_core.c.

#### 4.550.2.3 depth

```
int JSON_config::depth
```

Specifies the levels of nested JSON to allow.

Negative numbers yield unlimited nesting. If negative, the parser can parse arbitrary levels of JSON, otherwise the depth is the limit.

Definition at line 136 of file cson\_amalgamation\_core.c.

#### 4.550.2.4 free

```
JSON_free_t JSON_config::free
```

The memory deallocation routine, which must be semantically compatible with free(3).

If set to NULL, free(3) is used.

If this is set to a non-NULL value then the 'alloc' member MUST be set to the proper allocation counterpart for this function. Failure to do so results in undefined behaviour at deallocation time.

Definition at line 165 of file cson\_amalgamation\_core.c.

#### 4.550.2.5 malloc

`JSON_malloc_t JSON_config::malloc`

The memory allocation routine, which must be semantically compatible with `malloc(3)`.

If set to `NULL`, `malloc(3)` is used.

If this is set to a non-`NULL` value then the 'free' member **MUST** be set to the proper deallocation counterpart for this function. Failure to do so results in undefined behaviour at deallocation time.

Definition at line 155 of file `cson_amalgamation_core.c`.

The documentation for this struct was generated from the following file:

- `src/SSR/cson/cson_amalgamation_core.c`

## 4.551 JSON\_parser\_struct Struct Reference

### Data Fields

- `JSON_parser_callback` **callback**
- `void *` **ctx**
- `signed char` **state**
- `signed char` **before\_comment\_state**
- `signed char` **type**
- `signed char` **escaped**
- `signed char` **comment**
- `signed char` **allow\_comments**
- `signed char` **handle\_floats\_manually**
- `signed char` **error**
- `char` **decimal\_point**
- `UTF16` **utf16\_high\_surrogate**
- `int` **current\_char**
- `int` **depth**
- `int` **top**
- `int` **stack\_capacity**
- `signed char *` **stack**
- `char *` **parse\_buffer**
- `size_t` **parse\_buffer\_capacity**
- `size_t` **parse\_buffer\_count**
- `signed char` **static\_stack** [`JSON_PARSER_STACK_SIZE`]
- `char` **static\_parse\_buffer** [`JSON_PARSER_PARSE_BUFFER_SIZE`]
- `JSON_malloc_t` **malloc**
- `JSON_free_t` **free**

### 4.551.1 Detailed Description

Definition at line 347 of file `cson_amalgamation_core.c`.

The documentation for this struct was generated from the following file:

- `src/SSR/cson/cson_amalgamation_core.c`



## 4.552 JSON\_value\_struct Struct Reference

### Data Fields

- ```
union {  
    JSON_int_t integer_value  
    double float_value  
    struct {  
        const char * value  
        size_t length  
    } str  
} vu
```

### 4.552.1 Detailed Description

Definition at line 81 of file cson\_amalgamation\_core.c.

The documentation for this struct was generated from the following file:

- src/SSR/cson/cson\_amalgamation\_core.c

## 4.553 key Struct Reference

### Data Fields

- unsigned int **hit**

### 4.553.1 Detailed Description

Definition at line 139 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

## 4.554 keyHit Struct Reference

### Data Fields

- int **direction**
- double **epoch**
- double **era**
- int **once**

#### 4.554.1 Detailed Description

Definition at line 143 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

### 4.555 keyval Struct Reference

#### Data Fields

- char \* **key**
- char \* **val**
- **cson\_value** \* **cv**

#### 4.555.1 Detailed Description

Definition at line 52 of file common.c.

The documentation for this struct was generated from the following files:

- src/lib/ui/common.c
- src/SSR/SSRServer.c

### 4.556 Knotspec Struct Reference

#### Public Member Functions

- void **factors** (void)
- void **insert** (REAL \*)
- void **preselect** ()
- void **select** (void)
- void **copy** (INREAL \*, REAL \*)
- void **breakpoints** (void)
- void **knots** (void)
- void **transform** (REAL \*)
- void **showpts** (REAL \*)
- void **pt\_io\_copy** (REAL \*, INREAL \*)
- void **pt\_oo\_copy** (REAL \*, REAL \*)
- void **pt\_oo\_sum** (REAL \*, REAL \*, REAL \*, Knot, Knot)

## Data Fields

- long **order**
- Knot\_ptr **inkbegin**
- Knot\_ptr **inkend**
- Knot\_ptr **outkbegin**
- Knot\_ptr **outkend**
- Knot\_ptr **kleft**
- Knot\_ptr **kright**
- Knot\_ptr **kfirst**
- Knot\_ptr **klast**
- Knot\_ptr **sbegin**
- **Breakpt** \* **bbegin**
- **Breakpt** \* **bend**
- int **ncoords**
- int **prestride**
- int **poststride**
- int **preoffset**
- int **postoffset**
- int **prewidth**
- int **postwidth**
- int **istransformed**
- **Knotspec** \* **next**
- **Knotspec** \* **kspectotrans**

### 4.556.1 Detailed Description

Definition at line 54 of file tobezier.cc.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/tobezier.cc

## 4.557 Knotvector Struct Reference

### Public Member Functions

- void **init** (long, long, long, INREAL \*)
- int **validate** (void)
- void **show** (const char \*)

### Data Fields

- long **order**
- long **knotcount**
- long **stride**
- Knot \* **knotlist**

### 4.557.1 Detailed Description

Definition at line 41 of file knotvector.h.

The documentation for this struct was generated from the following files:

- src/libnurbs/internals/knotvector.h
- src/libnurbs/internals/knotvector.cc

## 4.558 LayerHeader Struct Reference

### Data Fields

- unsigned char **layerNumber**  
*Layer number.*
- unsigned char **layerSpecificInformation**  
*Layer specific information enumeration.*
- unsigned short **length**  
*information length*

### 4.558.1 Detailed Description

Definition at line 183 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.559 layout\_scale\_item Struct Reference

### Data Fields

- float **scale** [2]
- int **scalemode** [2]

### 4.559.1 Detailed Description

Definition at line 70 of file Component\_Layout.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Layout.c

## 4.560 layoutmode Struct Reference

### Data Fields

- char \* **key**
- int **type**

### 4.560.1 Detailed Description

Definition at line 109 of file Component\_Layout.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Layout.c

## 4.561 LinearObjectStatePdu Struct Reference

### Data Fields

- struct **SyntheticEnvironmentFamilyPdu** mySyntheticEnvironmentFamilyPdu
- struct **EntityID** objectID  
*Object in synthetic environment.*
- struct **EntityID** referencedObjectID  
*Object with which this point object is associated.*
- unsigned short **updateNumber**  
*unique update number of each state transition of an object*
- unsigned char **forceID**  
*force ID*
- unsigned char **numberOfSegments**  
*number of linear segment parameters*
- struct **SimulationAddress** requesterID  
*requesterID*
- struct **SimulationAddress** receivingID  
*receiver ID*
- struct **ObjectType** objectType  
*Object type.*
- void \* **linearSegmentParameters**  
*Linear segment parameters.*

### 4.561.1 Detailed Description

Definition at line 846 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.562 LinearSegmentParameter Struct Reference

### Data Fields

- unsigned char **segmentNumber**  
*number of segments*
- struct **SixByteChunk** **segmentAppearance**  
*segment appearance*
- struct **Vector3Double** **location**  
*location*
- struct **Orientation** **orientation**  
*orientation*
- unsigned short **segmentLength**  
*segmentLength*
- unsigned short **segmentWidth**  
*segmentWidth*
- unsigned short **segmentHeight**  
*segmentHeight*
- unsigned short **segmentDepth**  
*segment Depth*
- unsigned int **pad1**  
*segment Depth*

### 4.562.1 Detailed Description

Definition at line 927 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.563 linkedlist\_data\_s Struct Reference

### Data Fields

- **linkedlist\_datablock\_internal \* first\_block**
- **linkedlist\_datablock\_internal \* last\_block**

### 4.563.1 Detailed Description

Definition at line 123 of file zip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/zip.c

## 4.564 linkedlist\_datablock\_internal\_s Struct Reference

### Data Fields

- struct **linkedlist\_datablock\_internal\_s** \* **next\_datablock**
- uLong **avail\_in\_this\_block**
- uLong **filled\_in\_this\_block**
- uLong **unused**
- unsigned char **data** [SIZEDATA\_INDATABLOCK]

### 4.564.1 Detailed Description

Definition at line 114 of file zip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/zip.c

## 4.565 LogisticsFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** **myPdu**

### 4.565.1 Detailed Description

Definition at line 700 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.566 macroblock Struct Reference

### Data Fields

- int **mb\_address**
- int **past\_mb\_addr**
- int **motion\_h\_forw\_code**
- unsigned int **motion\_h\_forw\_r**
- int **motion\_v\_forw\_code**
- unsigned int **motion\_v\_forw\_r**
- int **motion\_h\_back\_code**
- unsigned int **motion\_h\_back\_r**
- int **motion\_v\_back\_code**
- unsigned int **motion\_v\_back\_r**
- unsigned int **cbp**
- int **mb\_intra**
- int **bpict\_past\_forw**
- int **bpict\_past\_back**
- int **past\_intra\_addr**
- int **recon\_right\_for\_prev**
- int **recon\_down\_for\_prev**
- int **recon\_right\_back\_prev**
- int **recon\_down\_back\_prev**

### 4.566.1 Detailed Description

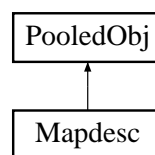
Definition at line 158 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.567 Mapdesc Class Reference

Inheritance diagram for Mapdesc:



### Public Member Functions

- **Mapdesc** (long, int, int, **Backend** &)
- int **isProperty** (long)
- REAL **getProperty** (long)
- void **setProperty** (long, REAL)
- int **isConstantSampling** (void)
- int **isDomainSampling** (void)
- int **isRangeSampling** (void)
- int **isSampling** (void)
- int **isParametricDistanceSampling** (void)
- int **isObjectSpaceParaSampling** (void)
- int **isObjectSpacePathSampling** (void)
- int **isSurfaceAreaSampling** (void)
- int **isPathLengthSampling** (void)
- int **isCulling** (void)
- int **isBboxSubdividing** (void)
- long **getType** (void)
- void **subdivide** (REAL \*, REAL \*, REAL, int, int)
- int **cullCheck** (REAL \*, int, int)
- void **xformBounding** (REAL \*, int, int, REAL \*, int)
- void **xformCulling** (REAL \*, int, int, REAL \*, int)
- void **xformSampling** (REAL \*, int, int, REAL \*, int)
- void **xformMat** (Maxmatrix, REAL \*, int, int, REAL \*, int)
- REAL **calcPartialVelocity** (REAL \*, int, int, int, REAL)
- int **project** (REAL \*, int, REAL \*, int, int)
- REAL **calcVelocityRational** (REAL \*, int, int)
- REAL **calcVelocityNonrational** (REAL \*, int, int)
- void **subdivide** (REAL \*, REAL \*, REAL, int, int, int, int)
- int **cullCheck** (REAL \*, int, int, int, int)
- void **xformBounding** (REAL \*, int, int, int, int, REAL \*, int, int)
- void **xformCulling** (REAL \*, int, int, int, int, REAL \*, int, int)



- void **xformSampling** (REAL \*, int, int, int, int, REAL \*, int, int)
- void **xformMat** (Maxmatrix, REAL \*, int, int, int, int, REAL \*, int, int)
- REAL **calcPartialVelocity** (REAL \*, REAL \*, int, int, int, int, int, int, REAL, REAL, int)
- int **project** (REAL \*, int, int, REAL \*, int, int, int, int)
- void **surfbbox** (REAL bb[2][MAXCOORDS])
- int **bbboxTooBig** (REAL \*, int, int, int, int, REAL[2][MAXCOORDS])
- int **xformAndCullCheck** (REAL \*, int, int, int, int)
- void **identify** (REAL[MAXCOORDS][MAXCOORDS])
- void **setBboxsize** (INREAL \*)
- void **setBmat** (INREAL \*, long, long)
- void **setCmat** (INREAL \*, long, long)
- void **setSmat** (INREAL \*, long, long)
- int **isRational** (void)
- int **getNcoords** (void)

## Data Fields

- REAL **pixel\_tolerance**
- REAL **error\_tolerance**
- REAL **object\_space\_error\_tolerance**
- REAL **clampfactor**
- REAL **minsavings**
- REAL **maxrate**
- REAL **maxsrate**
- REAL **maxtrate**
- REAL **bbboxsize** [MAXCOORDS]

## Friends

- class **Maplist**

### 4.567.1 Detailed Description

Definition at line 49 of file mapdesc.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/mapdesc.h
- src/libnurbs/internals/mapdesc.cc
- src/libnurbs/internals/mapdescv.cc

## 4.568 Maplist Class Reference

### Public Member Functions

- **Maplist** ( **Backend** &)
- void **define** (long, int, int)
- void **undefine** (long)
- int **isMap** (long)
- void **initialize** (void)
- **Mapdesc** \* **find** (long)
- **Mapdesc** \* **locate** (long)

### 4.568.1 Detailed Description

Definition at line 46 of file maplist.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/maplist.h
- src/libnurbs/internals/maplist.cc

## 4.569 Marking Struct Reference

### Data Fields

- unsigned char **characterSet**  
*The character set.*
- char **characters** [11]  
*The characters.*

### 4.569.1 Detailed Description

Definition at line 634 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.570 matpropstruct Struct Reference

### Data Fields

- struct **fw\_MaterialParameters** **fw\_FrontMaterial**
- struct **fw\_MaterialParameters** **fw\_BackMaterial**
- **s\_shader\_capabilities\_t** \* **currentShaderProperties**
- float **transparency**
- GLfloat **emissionColour** [3]
- GLint **cubeFace**
- int **cullFace**
- int **algorithm**
- bool **hatchedBool**
- bool **filledBool**
- GLfloat **hatchPercent** [2]
- GLfloat **hatchScale** [2]
- GLfloat **hatchColour** [4]
- GLfloat **pointSize**
- int **texCoordGeneratorType**

### 4.570.1 Detailed Description

Definition at line 151 of file Component\_Shape.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Shape.h

## 4.571 org.web3d.x3d.sai.Matrix Interface Reference

### Public Member Functions

- void **setTransform** ( **SFVec3f** translation, **SFVec3f** rotation, **SFVec2f** scale, **SFVec3f** scaleOrientation, **SFVec2f** center)
- void **getTransform** ( **SFVec2f** translation, **SFVec3f** rotation, **SFVec2f** scale)
- void **inverse** (float[ ][ ] matrix)
- void **transpose** (float[ ][ ] matrix)
- void **multiplyLeft** (float[ ][ ] matrix, float[ ][ ] mult, int size)
- void **multiplyRight** (float[ ][ ] matrix, float[ ][ ] mult, int size)
- void **multiplyRowVector** (float[ ][ ] matrix, float[ ] vec, int size)
- void **multiplyColVector** (float[ ][ ] matrix, float[ ] vec, int size)

### 4.571.1 Detailed Description

Definition at line 3 of file Matrix.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/Matrix.java

## 4.572 org.web3d.x3d.sai.Matrix3 Class Reference

### Public Member Functions

- **Matrix3** (float[ ] init)
- void **setIdentity** ()
- void **set** (int row, int column, float value)
- float **get** (int row, int column)
- void **setTransform** ( **SFVec2f** translation, **SFVec3f** rotation, **SFVec2f** scale, **SFVec3f** scaleOrientation, **SFVec2f** centre)
- void **getTransform** ( **SFVec2f** translation, **SFVec3f** rotation, **SFVec2f** scale)
- float[ ][ ] **multiply** (float[ ][ ] multp, float[ ][ ] mat)
- **Matrix3** **inverse** ()
- **Matrix3** **transpose** ()
- **Matrix3** **multiplyLeft** ( **Matrix3** mat)
- **Matrix3** **multiplyRight** ( **Matrix3** mat)
- float[ ] **multiplyRowVector** (float[ ] vec)
- float[ ] **multiplyColVector** (float[ ] vec)

## Data Fields

- float[ ][ ] **matrix**

## Static Public Attributes

- static int **SIZE** = 3

### 4.572.1 Detailed Description

Definition at line 3 of file Matrix3.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/Matrix3.java

## 4.573 org.web3d.x3d.sai.Matrix4 Class Reference

### Public Member Functions

- **Matrix4** (float[ ][ ] init)
- **Matrix4** (float[ ] init)
- void **setIdentity** ()
- void **set** (int row, int column, float value)
- float **get** (int row, int column)
- void **setTransform** ( **SFVec3f** translation, **SFRotation** rotation, **SFVec3f** scale, **SFRotation** scale↔ Orientation, **SFVec3f** centre)
- void **getTransform** ( **SFVec3f** translation, **SFRotation** rotation, **SFVec3f** scale)
- **Matrix4** **inverse** ()
- **Matrix4** **transpose** ()
- **Matrix4** **multiplyLeft** ( **Matrix4** mat)
- float[ ][ ] **multiply** (float[ ][ ] multp, float[ ][ ] mat)
- **Matrix4** **multiplyRight** ( **Matrix4** mat)
- float[ ] **multiplyRowVector** (float[ ] vec)
- float[ ] **multiplyColVector** (float[ ] vec)

## Data Fields

- float[ ][ ] **matrix**

## Static Public Attributes

- static int **SIZE** = 4

### 4.573.1 Detailed Description

Definition at line 3 of file `Matrix4.java`.

The documentation for this class was generated from the following file:

- `src/java/org/web3d/x3d/sai/Matrix4.java`

## 4.574 `mb_addr_inc_entry` Struct Reference

### Data Fields

- int `value`
- int `num_bits`

### 4.574.1 Detailed Description

Definition at line 751 of file `mpeg_berkley.h`.

The documentation for this struct was generated from the following file:

- `src/lib/scenegraph/mpeg_berkley.h`

## 4.575 `mb_type_entry` Struct Reference

### Data Fields

- unsigned int `mb_quant`
- unsigned int `mb_motion_forward`
- unsigned int `mb_motion_backward`
- unsigned int `mb_pattern`
- unsigned int `mb_intra`
- int `num_bits`

### 4.575.1 Detailed Description

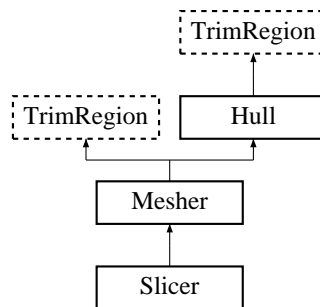
Definition at line 757 of file `mpeg_berkley.h`.

The documentation for this struct was generated from the following file:

- `src/lib/scenegraph/mpeg_berkley.h`

## 4.576 Mesher Class Reference

Inheritance diagram for Mesher:



### Public Member Functions

- **Mesher** ( Backend & )
- void **init** (unsigned int)
- void **mesh** (void)

### Additional Inherited Members

#### 4.576.1 Detailed Description

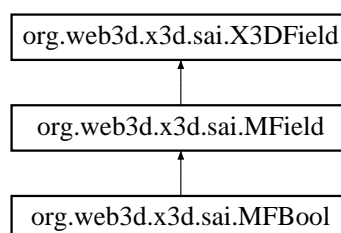
Definition at line 47 of file mesher.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/mesher.h
- src/libnurbs/internals/mesher.cc

## 4.577 org.web3d.x3d.sai.MFBool Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFBool:



## Public Member Functions

- void **getValue** (boolean[] vals)
- boolean **get1Value** (int index)
- void **setValue** (int size, boolean[] value)
- void **set1Value** (int index, boolean value) throws `ArrayIndexOutOfBoundsException`
- void **append** (boolean value)
- void **insertValue** (int index, boolean value)

### 4.577.1 Detailed Description

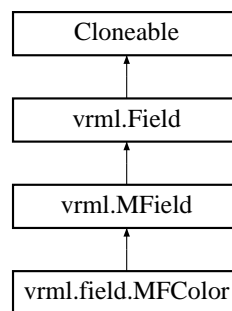
Definition at line 3 of file `MFBool.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/MFBool.java`

## 4.578 vrml.field.MFColor Class Reference

Inheritance diagram for `vrml.field.MFColor`:



## Public Member Functions

- **MFColor** (float[] colors)
- **MFColor** (int size, float[] colors)
- **MFColor** (float[][] colors)
- void **getValue** (float[] colors)
- void **getValue** (float[][] colors)
- void **get1Value** (int index, float[] colors)
- void **get1Value** (int index, **SFColor** sfColor)
- void **setValue** (float[] colors)
- void **setValue** (int size, float[] colors)
- void **set1Value** (int index, float red, float green, float blue)
- void **set1Value** (int index, **SFColor** sfColor)
- void **set1Value** (int index, **ConstSFColor** sfColor)
- void **addValue** (float red, float green, float blue)
- void **addValue** ( **SFColor** sfColor)
- void **addValue** ( **ConstSFColor** sfColor)
- void **insertValue** (int index, float red, float green, float blue)
- void **insertValue** (int index, **SFColor** sfColor)
- void **insertValue** (int index, **ConstSFColor** sfColor)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws `IOException`
- void **\_\_toPerl** (PrintWriter out) throws `IOException`

## Additional Inherited Members

### 4.578.1 Detailed Description

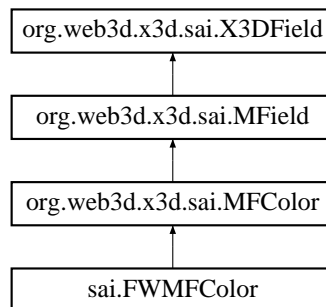
Definition at line 10 of file MFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFCOLOR.java

## 4.579 org.web3d.x3d.sai.MFCOLOR Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFCOLOR:



## Public Member Functions

- void **getValue** (float[ ][ ] value)
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int numVals, float[ ] value)
- void **setValue** (int numVals, float[ ][ ] value)
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

### 4.579.1 Detailed Description

Definition at line 3 of file MFCOLOR.java.

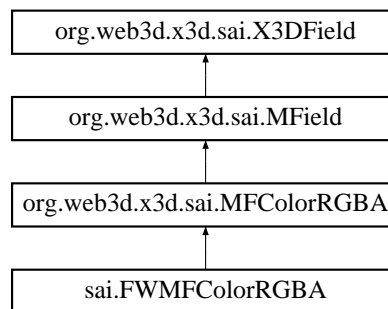
The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFCOLOR.java



## 4.580 org.web3d.x3d.sai.MFColorRGBA Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFColorRGBA:



### Public Member Functions

- void **getValue** (float[ ][ ] value)
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int numVolors, float[ ] value)
- void **setValue** (int numColors, float[ ][ ] value)
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

### 4.580.1 Detailed Description

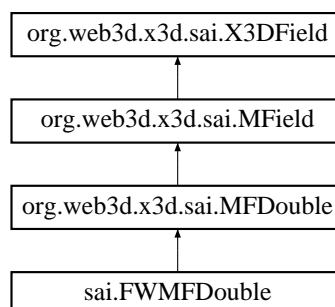
Definition at line 3 of file MFColorRGBA.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFColorRGBA.java

## 4.581 org.web3d.x3d.sai.MFDouble Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFDouble:



## Public Member Functions

- void **getValue** (double[] values)
- double **get1Value** (int index) throws ArrayIndexOutOfBoundsException
- void **setValue** (int size, double[] value)
- void **set1Value** (int index, double value) throws ArrayIndexOutOfBoundsException
- void **append** (double[] value)
- void **insertValue** (int index, double[] value)

### 4.581.1 Detailed Description

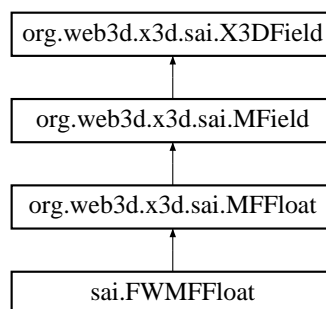
Definition at line 3 of file MFDouble.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFDouble.java

## 4.582 org.web3d.x3d.sai.MFFloat Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFFloat:



## Public Member Functions

- void **getValue** (float[] values)
- float **get1Value** (int index) throws ArrayIndexOutOfBoundsException
- void **setValue** (int size, float[] value)
- void **set1Value** (int index, float value) throws ArrayIndexOutOfBoundsException
- void **append** (float[] value)
- void **insertValue** (int index, float[] value)

### 4.582.1 Detailed Description

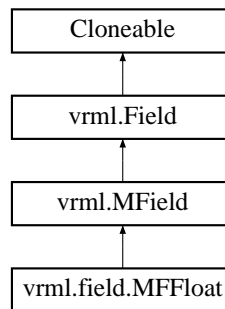
Definition at line 3 of file MFFloat.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFFloat.java

## 4.583 vrml.field.MFFloat Class Reference

Inheritance diagram for vrml.field.MFFloat:



### Public Member Functions

- **MFFloat** (float[] f)
- **MFFloat** (int size, float[] f)
- void **getValue** (float[] f)
- float **get1Value** (int index)
- void **setValue** (float[] f)
- void **setValue** (int size, float[] f)
- void **set1Value** (int index, float f)
- void **set1Value** (int index, **SFFloat** sfFloat)
- void **set1Value** (int index, **ConstSFFloat** sfFloat)
- void **addValue** (float f)
- void **addValue** ( **SFFloat** sfFloat)
- void **addValue** ( **ConstSFFloat** sfFloat)
- void **insertValue** (int index, float f)
- void **insertValue** (int index, **SFFloat** sfFloat)
- void **insertValue** (int index, **ConstSFFloat** sfFloat)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.583.1 Detailed Description

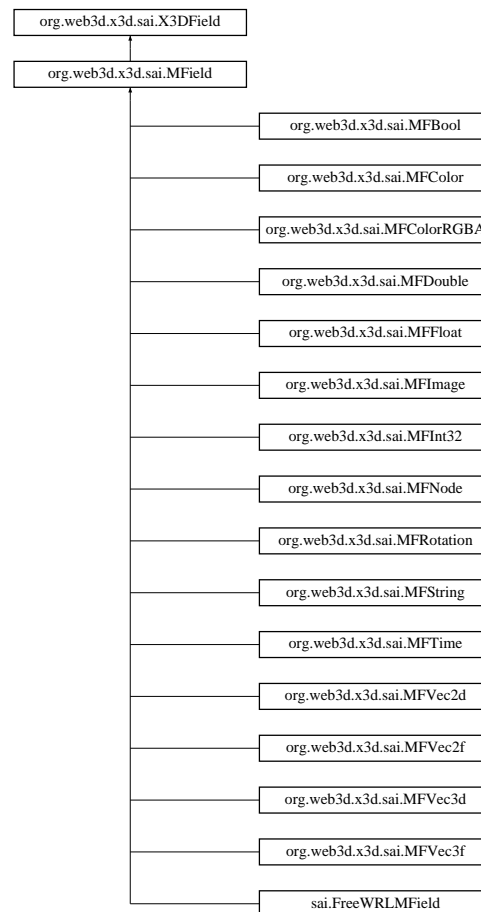
Definition at line 10 of file MFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFFloat.java

## 4.584 org.web3d.x3d.sai.MField Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MField:



### Public Member Functions

- int **size** () throws InvalidFieldException, ConnectionException
- void **clear** () throws InvalidFieldException, ConnectionException
- void **remove** (int index) throws InvalidFieldException, ConnectionException, ArrayIndexOutOfBoundsException

### 4.584.1 Detailed Description

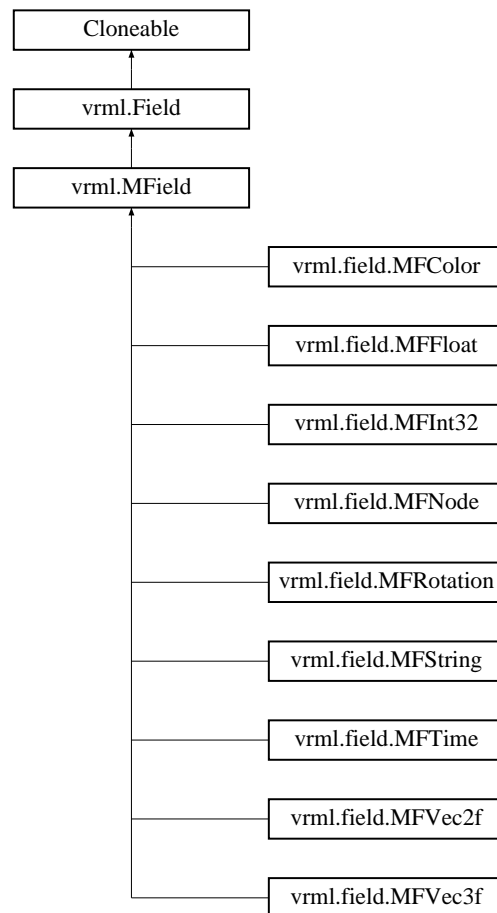
Definition at line 3 of file MField.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MField.java

## 4.585 vrml.MField Class Reference

Inheritance diagram for vrml.MField:



### Public Member Functions

- int **getSize** ()
- void **clear** ()
- void **delete** (int index)

### Data Fields

- **Vector** **\_\_vect** = new **Vector**()

### Protected Member Functions

- final void **\_\_update1Read** (int index)
- final void **\_\_set1Value** (int index, **ConstField** fld)
- final void **\_\_insertValue** (int index, **ConstField** fld)
- final void **\_\_addValue** ( **ConstField** fld)

### 4.585.1 Detailed Description

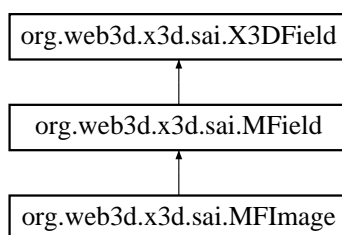
Definition at line 4 of file MField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/MField.java

## 4.586 org.web3d.x3d.sai.MFImage Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFImage:



### Public Member Functions

- int **getWidth** (int imgIndex)
- int **getHeight** (int imgIndex)
- int **getComponents** (int imgIndex)
- void **getPixels** (int imgIndex, int[] pixels)
- WritableRenderedImage **getImage** (int imgIndex)
- void **setImage** (int imgIndex, RenderedImage img)
- void **setSubImage** (int imgIndex, RenderedImage img, int srcWidth, int srcHeight, int srcXOffset, int srcYOffset, int destXOffset, int destYOffset)
- void **set1Value** (int index, int value)
- void **set1Value** (int imgIndex, int width, int height, int components, int[] pixels)
- void **setValue** (int[] value)
- void **setImage** (RenderedImage[] img)
- void **append** (RenderedImage value)
- void **insertValue** (int index, RenderedImage value)

### 4.586.1 Detailed Description

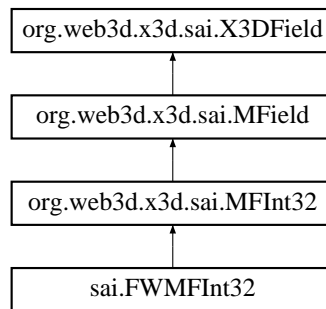
Definition at line 4 of file MFImage.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFImage.java

## 4.587 org.web3d.x3d.sai.MFInt32 Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFInt32:



### Public Member Functions

- void **getValue** (int[] values)
- int **get1Value** (int index) throws ArrayIndexOutOfBoundsException
- void **setValue** (int size, int[] value)
- void **set1Value** (int index, int value) throws ArrayIndexOutOfBoundsException
- void **append** (int[] value)
- void **insertValue** (int index, int[] value)

### 4.587.1 Detailed Description

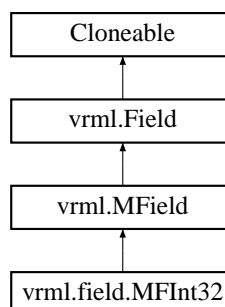
Definition at line 3 of file MFInt32.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFInt32.java

## 4.588 vrml.field.MFInt32 Class Reference

Inheritance diagram for vrml.field.MFInt32:



## Public Member Functions

- **MFlnt32** (int[] value)
- **MFlnt32** (int size, int[] value)
- void **getValue** (int[] value)
- int **get1Value** (int index)
- void **setValue** (int[] value)
- void **setValue** (int size, int[] value)
- void **set1Value** (int index, int value)
- void **set1Value** (int index, **SFlnt32** sflnt32)
- void **set1Value** (int index, **ConstSFlnt32** sflnt32)
- void **addValue** (int value)
- void **addValue** ( **SFlnt32** sflnt32)
- void **addValue** ( **ConstSFlnt32** sflnt32)
- void **insertValue** (int index, int value)
- void **insertValue** (int index, **SFlnt32** sflnt32)
- void **insertValue** (int index, **ConstSFlnt32** sflnt32)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.588.1 Detailed Description

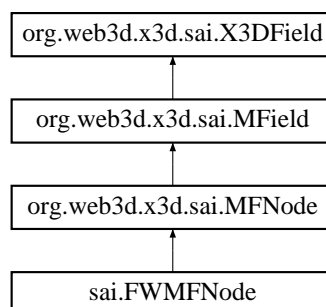
Definition at line 10 of file MFlnt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFlnt32.java

## 4.589 org.web3d.x3d.sai.MFNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFNode:





## Public Member Functions

- void **getValue** ( **X3DNode**[] nodes)
- **X3DNode** **get1Value** (int index)
- void **setValue** (int size, **X3DNode**[] value)
- void **set1Value** (int index, **X3DNode** value)
- void **append** ( **X3DNode** value)
- void **insertValue** (int index, **X3DNode** value)

### 4.589.1 Detailed Description

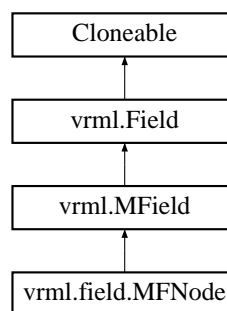
Definition at line 3 of file MFNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFNode.java

## 4.590 vrml.field.MFNode Class Reference

Inheritance diagram for vrml.field.MFNode:



## Public Member Functions

- **MFNode** ( **BaseNode**[] node)
- **MFNode** (int size, **BaseNode**[] node)
- void **getValue** ( **BaseNode**[] node)
- **BaseNode** **get1Value** (int index)
- void **setValue** ( **BaseNode**[] node)
- void **setValue** (int size, **BaseNode**[] node)
- void **set1Value** (int index, **BaseNode** node)
- void **set1Value** (int index, **SFNode** sfNode)
- void **set1Value** (int index, **ConstSFNode** sfNode)
- void **addValue** ( **BaseNode** node)
- void **addValue** ( **SFNode** sfNode)
- void **addValue** ( **ConstSFNode** sfNode)
- void **insertValue** (int index, **BaseNode** node)
- void **insertValue** (int index, **SFNode** sfNode)
- void **insertValue** (int index, **ConstSFNode** sfNode)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.590.1 Detailed Description

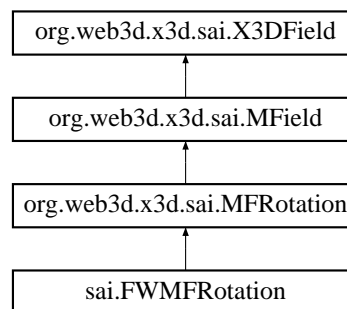
Definition at line 10 of file MFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFNode.java

## 4.591 org.web3d.x3d.sai.MFRotation Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFRotation:



## Public Member Functions

- void **getValue** (float[ ][ ] value)
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int numRotations, float[ ] value)
- void **setValue** (int numRotations, float[ ][ ] value)
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

### 4.591.1 Detailed Description

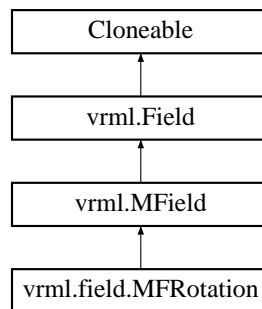
Definition at line 3 of file MFRotation.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFRotation.java

## 4.592 vrml.field.MFRotation Class Reference

Inheritance diagram for vrml.field.MFRotation:



### Public Member Functions

- **MFRotation** (float[] rotations)
- **MFRotation** (int size, float[] rotations)
- **MFRotation** (float[][] rotations)
- void **getValue** (float[] rotations)
- void **getValue** (float[][] rotations)
- void **get1Value** (int index, float[] rotations)
- void **get1Value** (int index, **SFRotation** sfRotation)
- void **setValue** (float[] rotations)
- void **setValue** (int size, float[] rotations)
- void **set1Value** (int index, float axisX, float axisY, float axisZ, float angle)
- void **set1Value** (int index, **SFRotation** sfRotation)
- void **set1Value** (int index, **ConstSFRotation** sfRotation)
- void **addValue** (float axisX, float axisY, float axisZ, float angle)
- void **addValue** ( **SFRotation** sfRotation)
- void **addValue** ( **ConstSFRotation** sfRotation)
- void **insertValue** (int index, float axisX, float axisY, float axisZ, float angle)
- void **insertValue** (int index, **SFRotation** sfRotation)
- void **insertValue** (int index, **ConstSFRotation** sfRotation)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.592.1 Detailed Description

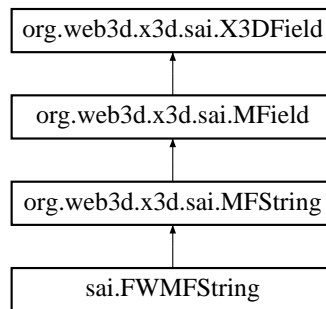
Definition at line 10 of file MFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFRotation.java

## 4.593 org.web3d.x3d.sai.MFString Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFString:



### Public Member Functions

- void **getValue** (String[] value)
- String **get1Value** (int index)
- void **setValue** (int numStrings, String[] value)
- void **set1Value** (int index, String value)
- void **append** (String[] value)
- void **insertValue** (int index, String[] value)

### 4.593.1 Detailed Description

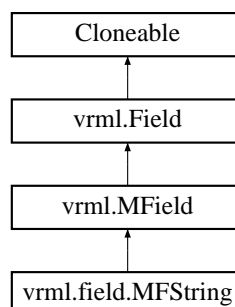
Definition at line 3 of file MFString.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFString.java

## 4.594 vrml.field.MFString Class Reference

Inheritance diagram for vrml.field.MFString:



## Public Member Functions

- **MFString** (String[] s)
- **MFString** (int size, String[] s)
- void **getValue** (String[] s)
- String **get1Value** (int index)
- void **setValue** (String[] s)
- void **setValue** (int size, String[] s)
- void **set1Value** (int index, String s)
- void **set1Value** (int index, **SFString** sfString)
- void **set1Value** (int index, **ConstSFString** sfString)
- void **addValue** (String s)
- void **addValue** ( **SFString** sfString)
- void **addValue** ( **ConstSFString** sfString)
- void **insertValue** (int index, String s)
- void **insertValue** (int index, **SFString** sfString)
- void **insertValue** (int index, **ConstSFString** sfString)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.594.1 Detailed Description

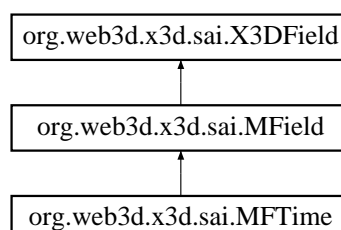
Definition at line 10 of file MFString.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFString.java

## 4.595 org.web3d.x3d.sai.MFTime Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFTime:



## Public Member Functions

- void **getValue** (double[] value)
- double **get1Value** (int index)
- long **get1JavaValue** (int index)
- void **setValue** (int size, double[] value)
- void **setValue** (int size, long[] value)
- void **set1Value** (int index, double value)
- void **set1Value** (int index, long value)
- void **append** (double value)
- void **append** (long value)
- void **insertValue** (int index, long value)
- void **insertValue** (int index, double value)

### 4.595.1 Detailed Description

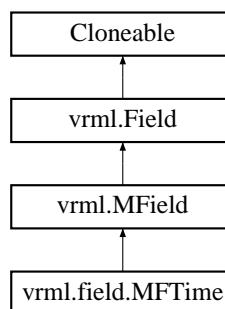
Definition at line 3 of file MFTIME.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFTIME.java

## 4.596 vrml.field.MFTIME Class Reference

Inheritance diagram for vrml.field.MFTIME:



## Public Member Functions

- **MFTIME** (double[] value)
- **MFTIME** (int size, double[] value)
- void **getValue** (double[] value)
- double **get1Value** (int index)
- void **setValue** (double[] value)
- void **setValue** (int size, double[] value)
- void **set1Value** (int index, double value)
- void **set1Value** (int index, **SFTIME** sfTime)
- void **set1Value** (int index, **ConstSFTIME** sfTime)
- void **addValue** (double value)
- void **addValue** ( **SFTIME** sfTime)
- void **addValue** ( **ConstSFTIME** sfTime)
- void **insertValue** (int index, double value)
- void **insertValue** (int index, **SFTIME** sfTime)
- void **insertValue** (int index, **ConstSFTIME** sfTime)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.596.1 Detailed Description

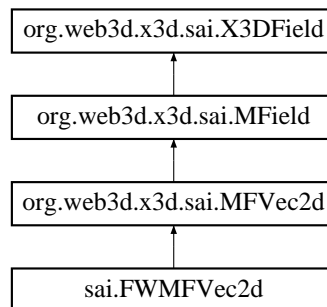
Definition at line 10 of file MFTime.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFTime.java

## 4.597 org.web3d.x3d.sai.MFVec2d Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFVec2d:



## Public Member Functions

- void **getValue** (double[][] value)
- void **getValue** (double[] value)
- void **get1Value** (int index, double[] value)
- void **setValue** (int size, double[] value)
- void **setValue** (int size, double[][] value)
- void **set1Value** (int index, double[] value)
- void **append** (double[] value)
- void **insertValue** (int index, double[] value)

### 4.597.1 Detailed Description

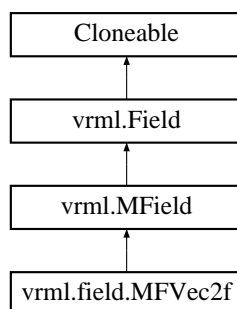
Definition at line 3 of file MFVec2d.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFVec2d.java

## 4.598 vrml.field.MFVec2f Class Reference

Inheritance diagram for vrml.field.MFVec2f:



### Public Member Functions

- **MFVec2f** (float[ ] vec2fs)
- **MFVec2f** (int size, float[ ] vec2fs)
- **MFVec2f** (float[ ][ ] vec2fs)
- void **getValue** (float[ ] vec2fs)
- void **getValue** (float[ ][ ] vec2fs)
- void **get1Value** (int index, float[ ] vec2fs)
- void **get1Value** (int index, **SFVec2f** sfVec2f)
- void **setValue** (float[ ] vec2fs)
- void **setValue** (int size, float[ ] vec2fs)
- void **set1Value** (int index, float x, float y)
- void **set1Value** (int index, **SFVec2f** sfVec2f)
- void **set1Value** (int index, **ConstSFVec2f** sfVec2f)
- void **addValue** (float x, float y)
- void **addValue** ( **SFVec2f** sfVec2f)
- void **addValue** ( **ConstSFVec2f** sfVec2f)
- void **insertValue** (int index, float x, float y)
- void **insertValue** (int index, **SFVec2f** sfVec2f)
- void **insertValue** (int index, **ConstSFVec2f** sfVec2f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.598.1 Detailed Description

Definition at line 10 of file MFVec2f.java.

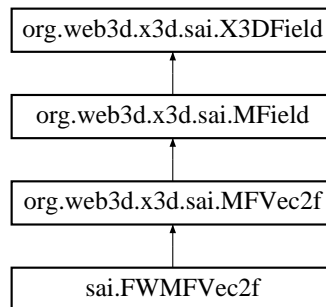
The documentation for this class was generated from the following file:

- src/java/vrml/field/MFVec2f.java



## 4.599 org.web3d.x3d.sai.MFVec2f Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFVec2f:



### Public Member Functions

- void **getValue** (float[ ][ ] value)
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int size, float[ ] value)
- void **setValue** (int size, float[ ][ ] value)
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

### 4.599.1 Detailed Description

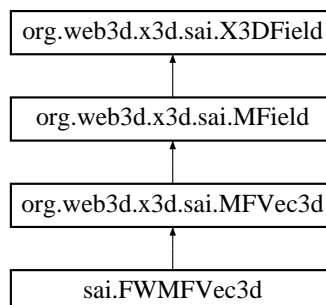
Definition at line 3 of file MFVec2f.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFVec2f.java

## 4.600 org.web3d.x3d.sai.MFVec3d Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFVec3d:



## Public Member Functions

- void **getValue** (double[ ][ ] value)
- void **getValue** (double[ ] value)
- void **get1Value** (int index, double[ ] value)
- void **setValue** (int size, double[ ] value)
- void **setValue** (int size, double[ ][ ] value)
- void **set1Value** (int index, double[ ] value)
- void **append** (double[ ] value)
- void **insertValue** (int index, double[ ] value)

### 4.600.1 Detailed Description

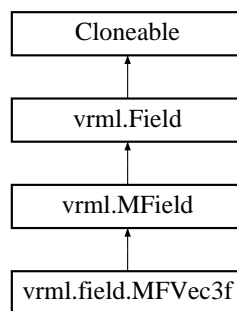
Definition at line 3 of file MFVec3d.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFVec3d.java

## 4.601 vrml.field.MFVec3f Class Reference

Inheritance diagram for vrml.field.MFVec3f:



## Public Member Functions

- **MFVec3f** (float[ ] vec3fs)
- **MFVec3f** (int size, float[ ] vec3fs)
- **MFVec3f** (float[ ][ ] vec3fs)
- void **getValue** (float[ ] vec3fs)
- void **getValue** (float[ ][ ] vec3fs)
- void **get1Value** (int index, float[ ] vec3fs)
- void **get1Value** (int index, **SFVec3f** sfVec3f)
- void **setValue** (float[ ] vec3fs)
- void **setValue** (int size, float[ ] vec3fs)
- void **set1Value** (int index, float x, float y, float z)
- void **set1Value** (int index, **SFVec3f** sfVec3f)
- void **set1Value** (int index, **ConstSFVec3f** sfVec3f)
- void **addValue** (float x, float y, float z)
- void **addValue** ( **SFVec3f** sfVec3f)
- void **addValue** ( **ConstSFVec3f** sfVec3f)
- void **insertValue** (int index, float x, float y, float z)
- void **insertValue** (int index, **SFVec3f** sfVec3f)
- void **insertValue** (int index, **ConstSFVec3f** sfVec3f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.601.1 Detailed Description

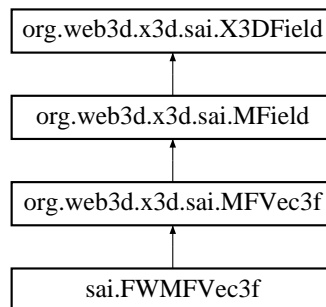
Definition at line 10 of file MFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/MFVec3f.java

## 4.602 org.web3d.x3d.sai.MFVec3f Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFVec3f:



## Public Member Functions

- void **getValue** (float[ ][ ] value)
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int size, float[ ] value)
- void **setValue** (int size, float[ ][ ] value)
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

### 4.602.1 Detailed Description

Definition at line 3 of file MFVec3f.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFVec3f.java

## 4.603 MinefieldDataPdu Struct Reference

### Data Fields

- struct **MinefieldFamilyPdu** **myMinefieldFamilyPdu**
- struct **EntityID** **minefieldID**  
*Minefield ID.*
- struct **EntityID** **requestingEntityID**  
*ID of entity making request.*
- unsigned short **minefieldSequenceNumber**  
*Minefield sequence number.*
- unsigned char **requestID**  
*request ID*
- unsigned char **pduSequenceNumber**  
*pdu sequence number*
- unsigned char **numberOfPdus**  
*number of pdus in response*
- unsigned char **numberOfMinesInThisPdu**  
*how many mines are in this PDU*
- unsigned char **numberOfSensorTypes**  
*how many sensor type are in this PDU*
- unsigned char **pad2**  
*padding*
- unsigned int **dataFilter**  
*32 boolean fields*
- struct **EntityType** **mineType**  
*Mine type.*
- void \* **sensorTypes**  
*Sensor types, each 16 bits long.*
- unsigned char **pad3**  
*Padding to get things 32-bit aligned.*
- void \* **mineLocation**  
*Mine locations.*

### 4.603.1 Detailed Description

Definition at line 1443 of file DIS.h.

### 4.603.2 Field Documentation

### 4.603.2.1 pad3

```
unsigned char MinefieldDataPdu::pad3
```

Padding to get things 32-bit aligned.

^^^this is wrong—dyanmically sized padding needed

Definition at line 1470 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.604 MinefieldFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** myPdu

### 4.604.1 Detailed Description

Definition at line 1316 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.605 MinefieldQueryPdu Struct Reference

### Data Fields

- struct **MinefieldFamilyPdu** myMinefieldFamilyPdu
- struct **EntityID** minefieldID  
*Minefield ID.*
- struct **EntityID** requestingEntityID  
*EID of entity making the request.*
- unsigned char **requestID**  
*request ID*
- unsigned char **numberOfPerimeterPoints**  
*Number of perimeter points for the minefield.*
- unsigned char **pad2**  
*Padding.*
- unsigned char **numberOfSensorTypes**  
*Number of sensor types.*
- unsigned int **dataFilter**  
*data filter, 32 boolean fields*
- struct **EntityType** requestedMineType  
*Entity type of mine being requested.*
- void \* **requestedPerimeterPoints**  
*perimeter points of request*
- void \* **sensorTypes**  
*Sensor types, each 16 bits long.*

### 4.605.1 Detailed Description

Definition at line 2108 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.606 MinefieldResponseNackPdu Struct Reference

### Data Fields

- struct **MinefieldFamilyPdu** myMinefieldFamilyPdu
- struct **EntityID** minefieldID  
*Minefield ID.*
- struct **EntityID** requestingEntityID  
*entity ID making the request*
- unsigned char **requestID**  
*request ID*
- unsigned char **numberOfMissingPdus**  
*how many pdus were missing*
- void \* **missingPduSequenceNumbers**  
*PDU sequence numbers that were missing.*

### 4.606.1 Detailed Description

Definition at line 2024 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.607 MinefieldStatePdu Struct Reference

### Data Fields

- struct **MinefieldFamilyPdu** myMinefieldFamilyPdu
- struct **EntityID** minefieldID  
*Minefield ID.*
- unsigned short **minefieldSequence**  
*Minefield sequence.*
- unsigned char **forceID**  
*force ID*
- unsigned char **numberOfPerimeterPoints**  
*Number of permieter points.*
- struct **EntityType** minefieldType

- type of minefield*
- unsigned short **numberOfMineTypes**
  - how many mine types*
- struct **Vector3Double** **minefieldLocation**
  - location of minefield in world coords*
- struct **Orientation** **minefieldOrientation**
  - orientation of minefield*
- unsigned short **appearance**
  - appearance bitflags*
- unsigned short **protocolMode**
  - protocolMode*
- void \* **perimeterPoints**
  - perimeter points for the minefield*
- void \* **mineType**
  - Type of mines.*

#### 4.607.1 Detailed Description

Definition at line 1660 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.608 mode\_name Struct Reference

### Data Fields

- int **mode**
- const char \* **name**

#### 4.608.1 Detailed Description

Definition at line 170 of file X3DParser.c.

The documentation for this struct was generated from the following file:

- src/lib/x3d\_parser/X3DParser.c

## 4.609 ModulationType Struct Reference

### Data Fields

- unsigned short **spreadSpectrum**
  - spread spectrum, 16 bit boolean array*
- unsigned short **major**
  - major*
- unsigned short **detail**
  - detail*
- unsigned short **system**
  - system*

### 4.609.1 Detailed Description

Definition at line 338 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.610 monoChain Class Reference

### Public Member Functions

- **monoChain** ( **directedLine** \*cHead, **directedLine** \*cTail)
- void **setNext** ( **monoChain** \*n)
- void **setPrev** ( **monoChain** \*p)
- void **setNextPolygon** ( **monoChain** \*np)
- **monoChain** \* **getNext** ()
- **monoChain** \* **getPrev** ()
- **directedLine** \* **getHead** ()
- **directedLine** \* **getTail** ()
- void **resetCurrent** ()
- void **deleteLoop** ()
- void **deleteLoopList** ()
- void **insert** ( **monoChain** \*nc)
- Int **numChainsSingleLoop** ()
- Int **numChainsAllLoops** ()
- **monoChain** \*\* **toArrayAllLoops** (Int &num\_chains)
- Int **toArraySingleLoop** ( **monoChain** \*\*array, Int index)
- Real **chainIntersectHoriz** (Real y)
- **directedLine** \* **find** (Real y)
- void **printOneChain** ()
- void **printChainLoop** ()
- void **printAllLoops** ()

### Data Fields

- Int **isKey**
- Real **keyY**

### 4.610.1 Detailed Description

Definition at line 41 of file monoChain.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/monoChain.h
- src/libnurbs/nurbtess/monoChain.cc



## 4.611 Monotonizer Class Reference

### Public Member Functions

- **Monotonizer** ( **ArcTessellator** &at, **Pool** &ap, **Pool** &p, jmp\_buf &j)
- int **decompose** ( **Bin** &, REAL)

### 4.611.1 Detailed Description

Definition at line 49 of file monotonizer.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/monotonizer.h

## 4.612 motion\_vectors\_entry Struct Reference

### Data Fields

- int **code**
- int **num\_bits**

### 4.612.1 Detailed Description

Definition at line 780 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.613 Multi\_Any Struct Reference

### Data Fields

- int **n**
- char \* **p**

### 4.613.1 Detailed Description

Definition at line 133 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.614 Multi\_Bool Struct Reference

### Data Fields

- int **n**
- int \* **p**
- size\_t **n**

### 4.614.1 Detailed Description

Definition at line 2531 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.615 Multi\_Color Struct Reference

### Data Fields

- int **n**
- struct **SFColor** \* **p**
- size\_t **n**

### 4.615.1 Detailed Description

Definition at line 2537 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.616 Multi\_ColorRGBA Struct Reference

### Data Fields

- int **n**
- struct **SFColorRGBA** \* **p**
- size\_t **n**

### 4.616.1 Detailed Description

Definition at line 2539 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.617 Multi\_Double Struct Reference

### Data Fields

- int **n**
- double \* **p**
- size\_t **n**

### 4.617.1 Detailed Description

Definition at line 2551 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.618 Multi\_Float Struct Reference

### Data Fields

- int **n**
- float \* **p**
- size\_t **n**

### 4.618.1 Detailed Description

Definition at line 2525 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.619 Multi\_Int32 Struct Reference

### Data Fields

- int **n**
- int \* **p**
- size\_t **n**

### 4.619.1 Detailed Description

Definition at line 2533 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.620 Multi\_Matrix3d Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix3d** \* **p**
- size\_t **n**

### 4.620.1 Detailed Description

Definition at line 2555 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.621 Multi\_Matrix3f Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix3f** \* **p**
- size\_t **n**

### 4.621.1 Detailed Description

Definition at line 2553 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.622 Multi\_Matrix4d Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix4d** \* **p**
- size\_t **n**

### 4.622.1 Detailed Description

Definition at line 2559 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.623 Multi\_Matrix4f Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix4f** \* **p**
- size\_t **n**

### 4.623.1 Detailed Description

Definition at line 2557 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.624 Multi\_Node Struct Reference

### Data Fields

- int **n**
- struct **X3D\_Node** \*\* **p**
- size\_t **n**
- void \*\* **p**

### 4.624.1 Detailed Description

Definition at line 2535 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.625 Multi\_Rotation Struct Reference

### Data Fields

- int **n**
- struct **SFRotation** \* **p**
- size\_t **n**

### 4.625.1 Detailed Description

Definition at line 2527 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.626 Multi\_String Struct Reference

### Data Fields

- int **n**
- struct **Uni\_String** \*\* **p**
- size\_t **n**

### 4.626.1 Detailed Description

Definition at line 2543 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.627 Multi\_Time Struct Reference

### Data Fields

- int **n**
- double \* **p**
- size\_t **n**

### 4.627.1 Detailed Description

Definition at line 2541 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.628 Multi\_Vec2d Struct Reference

### Data Fields

- int **n**
- struct **SFVec2d** \* **p**
- size\_t **n**

### 4.628.1 Detailed Description

Definition at line 2561 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.629 Multi\_Vec2f Struct Reference

### Data Fields

- int **n**
- struct **SFVec2f** \* **p**
- size\_t **n**

### 4.629.1 Detailed Description

Definition at line 2545 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.630 Multi\_Vec3d Struct Reference

### Data Fields

- int **n**
- struct **SFVec3d** \* **p**
- size\_t **n**

### 4.630.1 Detailed Description

Definition at line 2549 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.631 Multi\_Vec3f Struct Reference

### Data Fields

- int **n**
- struct **SFVec3f** \* **p**
- size\_t **n**
- struct **SFColor** \* **p**



### 4.631.1 Detailed Description

Definition at line 2529 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.632 Multi\_Vec4d Struct Reference

### Data Fields

- int **n**
- struct **SFVec4d** \* **p**
- size\_t **n**

### 4.632.1 Detailed Description

Definition at line 2565 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.633 Multi\_Vec4f Struct Reference

### Data Fields

- int **n**
- struct **SFVec4f** \* **p**
- size\_t **n**

### 4.633.1 Detailed Description

Definition at line 2563 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.634 multiTexParams Struct Reference

### Data Fields

- int **multitex\_mode** [2]
- int **multitex\_source** [2]
- int **multitex\_function**

### 4.634.1 Detailed Description

Definition at line 49 of file RenderTextures.c.

The documentation for this struct was generated from the following files:

- src/lib/opencv/RenderTextures.c
- src/lib/opencv/Textures.c

## 4.635 myArgs Struct Reference

### Data Fields

- struct **X3D\_Node** \* **node**
- **ttglobal** **tg**

### 4.635.1 Detailed Description

Definition at line 148 of file Component\_ProgrammableShaders.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_ProgrammableShaders.c

## 4.636 MyVertex Struct Reference

### Data Fields

- struct **SFVec3f** **vert**
- struct **SFVec3f** **norm**
- struct **SFVec2f** **tc**
- struct **SFVec3f** **flat\_norm**
- struct **SFColorRGBA** **col**

### 4.636.1 Detailed Description

Definition at line 54 of file Component\_Geometry3D.c.

The documentation for this struct was generated from the following files:

- src/lib/scenegraph/Component\_Geometry3D.c
- src/lib/x3d\_parser/Bindable.c

## 4.637 name\_num Struct Reference

### Data Fields

- char \* **facename**
- char \* **family**
- char \* **style**
- char \* **style2**
- int **num**
- int **bold**
- int **italic**
- int **ifamily**

### 4.637.1 Detailed Description

Definition at line 638 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.638 NamedLocation Struct Reference

### Data Fields

- unsigned short **stationName**  
*station name enumeration*
- unsigned short **stationNumber**  
*station number*

### 4.638.1 Detailed Description

Definition at line 413 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.639 navmode Struct Reference

### Data Fields

- char \* **key**
- int **type**

### 4.639.1 Detailed Description

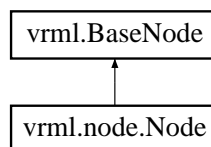
Definition at line 506 of file Viewer.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.c

## 4.640 vrml.node.Node Class Reference

Inheritance diagram for vrml.node.Node:



### Public Member Functions

- **Node** (String id)
- final **Field** **getEventIn** (String eventInName)
- final **ConstField** **getEventOut** (String eventOutName)
- final **Field** **getExposedField** (String exposedFieldName)

### 4.640.1 Detailed Description

Definition at line 12 of file Node.java.

The documentation for this class was generated from the following file:

- src/java/vrml/node/Node.java

## 4.641 vrml.external.Node Class Reference

### Public Member Functions

- String **getType** ()
- **EventIn** **getEventIn** (String name) throws InvalidEventInException
- **EventOut** **getEventOut** (String name) throws InvalidEventOutException

## Data Fields

- int **EventType** = FieldTypes.UnknownType
- String **outNode**
- String **inNode**
- String **command**
- String **RLreturn**
- int **nodeptr** = 0
- int **offset** = 0
- int **datasize** = 0
- String **datatype**
- int **ScriptType** = 0

### 4.641.1 Detailed Description

Definition at line 11 of file Node.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/Node.java

## 4.642 nodedistance Struct Reference

## Data Fields

- struct **X3D\_Node** \* **node**
- float **dist**

### 4.642.1 Detailed Description

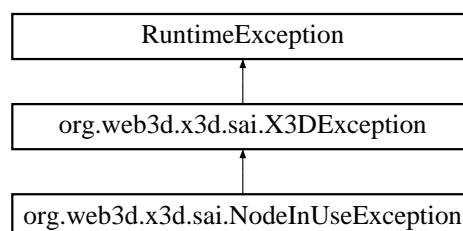
Definition at line 55 of file Component\_Picking.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Picking.c

## 4.643 org.web3d.x3d.sai.NodeInUseException Class Reference

Inheritance diagram for org.web3d.x3d.sai.NodeInUseException:



## Public Member Functions

- **NodeInUseException** (String msg)

### 4.643.1 Detailed Description

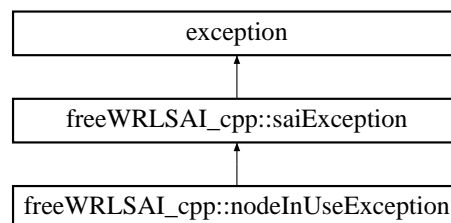
Definition at line 3 of file NodeInUseException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/NodeInUseException.java

## 4.644 freeWRLSAI\_cpp::nodeInUseException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::nodeInUseException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.644.1 Detailed Description

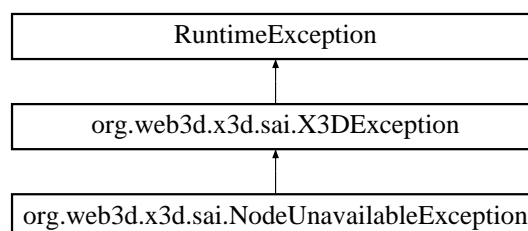
Definition at line 206 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.645 org.web3d.x3d.sai.NodeUnavailableException Class Reference

Inheritance diagram for org.web3d.x3d.sai.NodeUnavailableException:



## Public Member Functions

- **NodeUnavailableException** (String msg)

### 4.645.1 Detailed Description

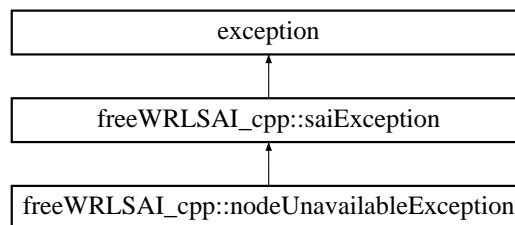
Definition at line 3 of file NodeUnavailableException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/NodeUnavailableException.java

## 4.646 freeWRLSAI\_cpp::nodeUnavailableException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::nodeUnavailableException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.646.1 Detailed Description

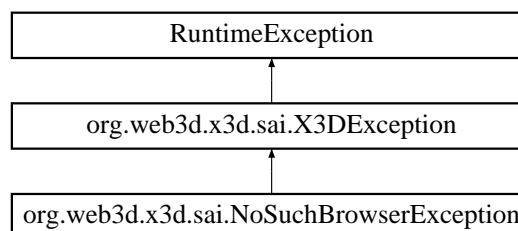
Definition at line 195 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.647 org.web3d.x3d.sai.NoSuchBrowserException Class Reference

Inheritance diagram for org.web3d.x3d.sai.NoSuchBrowserException:



## Public Member Functions

- **NoSuchBrowserException** (String msg)

### 4.647.1 Detailed Description

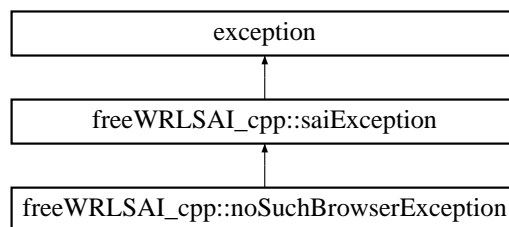
Definition at line 3 of file NoSuchBrowserException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/NoSuchBrowserException.java

## 4.648 freeWRLSAI\_cpp::noSuchBrowserException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::noSuchBrowserException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.648.1 Detailed Description

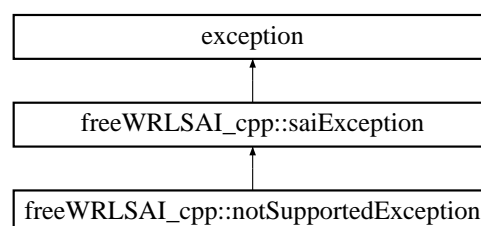
Definition at line 73 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.649 freeWRLSAI\_cpp::notSupportedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::notSupportedException:





## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.649.1 Detailed Description

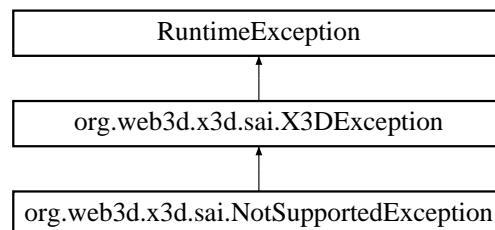
Definition at line 229 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.650 org.web3d.x3d.sai.NotSupportedException Class Reference

Inheritance diagram for org.web3d.x3d.sai.NotSupportedException:



## Public Member Functions

- **NotSupportedException** (String msg)

### 4.650.1 Detailed Description

Definition at line 3 of file NotSupportedException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/NotSupportedException.java

## 4.651 NPClass Struct Reference

### Data Fields

- uint32\_t **structVersion**
- NPAllocateFunctionPtr **allocate**
- NPDeallocateFunctionPtr **deallocate**
- NPInvalidateFunctionPtr **invalidate**
- NPHasMethodFunctionPtr **hasMethod**
- NPInvokeFunctionPtr **invoke**
- NPInvokeDefaultFunctionPtr **invokeDefault**
- NPHasPropertyFunctionPtr **hasProperty**
- NPGetPropertyFunctionPtr **getProperty**
- NPSetPropertyFunctionPtr **setProperty**
- NPRemovePropertyFunctionPtr **removeProperty**
- NPEnumerationFunctionPtr **enumerate**
- NPConstructFunctionPtr **construct**

### 4.651.1 Detailed Description

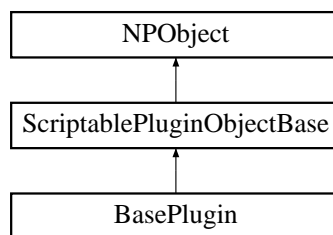
Definition at line 327 of file npruntime.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npruntime.h

## 4.652 NPObject Struct Reference

Inheritance diagram for NPObject:



### Data Fields

- NPClass \* **\_class**
- uint32\_t **referenceCount**

### 4.652.1 Detailed Description

Definition at line 355 of file npruntime.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/npruntime.h

## 4.653 nsByteRange Struct Reference

### Data Fields

- PRInt32 **offset**
- PRUint32 **length**
- struct **nsByteRange** \* **next**

### 4.653.1 Detailed Description

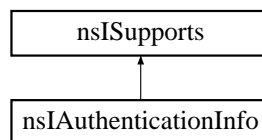
Definition at line 125 of file nsplugindefs.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/nsplugindefs.h

## 4.654 nsIAuthenticationInfo Interface Reference

Inheritance diagram for nsIAuthenticationInfo:



### Data Fields

- readonly attribute const\_char\_ptr **username**  
*AuthenticationInfo (username/password pair)*
- readonly attribute const\_char\_ptr **password**

### 4.654.1 Detailed Description

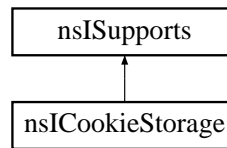
Definition at line 56 of file nsIJVMAuthTools.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIJVMAuthTools.idl

## 4.655 nsICookieStorage Interface Reference

Inheritance diagram for nsICookieStorage:



### Public Member Functions

- void **getCookie** (in string aCookieURL, in voidPtr aCookieBuffer, in PRUint32Ref aCookieSize)  
*Retrieves a cookie from the browser's persistent cookie store.*
- void **setCookie** (in string aCookieURL, in constVoidPtr aCookieBuffer, in unsigned long aCookieSize)  
*Stores a cookie in the browser's persistent cookie store.*

### 4.655.1 Detailed Description

Definition at line 51 of file nsICookieStorage.idl.

### 4.655.2 Member Function Documentation

#### 4.655.2.1 getCookie()

```
void nsICookieStorage::getCookie (
    in string aCookieURL,
    in voidPtr aCookieBuffer,
    in PRUint32Ref aCookieSize )
```

Retrieves a cookie from the browser's persistent cookie store.

#### Parameters

|                      |                                                                 |
|----------------------|-----------------------------------------------------------------|
| <i>aCookieURL</i>    | - URL string to look up cookie with.                            |
| <i>aCookieBuffer</i> | - buffer large enough to accomodate cookie data.                |
| <i>aCookieSize</i>   | - on input, size of the cookie buffer, on output cookie's size. |

#### 4.655.2.2 setCookie()

```
void nsICookieStorage::setCookie (
    in string aCookieURL,
```

```

    in constVoidPtr aCookieBuffer,
    in unsigned long aCookieSize )

```

Stores a cookie in the browser's persistent cookie store.

#### Parameters

|                      |                                  |
|----------------------|----------------------------------|
| <i>aCookieURL</i>    | - URL string store cookie with.  |
| <i>aCookieBuffer</i> | - buffer containing cookie data. |
| <i>aCookieSize</i>   | - specifies size of cookie data. |

The documentation for this interface was generated from the following file:

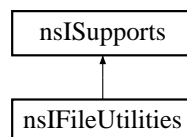
- src/plugin\_win32/include/nsICookieStorage.idl

## 4.656 nsFileUtilities Interface Reference

The **nsFileUtilities** (p. 425) interface provides access to random file operations.

```
import "nsFileUtilities.idl";
```

Inheritance diagram for nsFileUtilities:



### Public Member Functions

- void **getProgramPath** (out constCharPtr aProgramPath)  
*Returns the name of the browser executable program.*
- void **getTempDirPath** (out constCharPtr aTempDirPath)  
*Returns the name of the temporary directory.*
- void **newTempFileName** (in string aPrefix, in unsigned long aLength, in charPtr aBuffer)  
*Returns a unique temporary file name.*

### 4.656.1 Detailed Description

The **nsFileUtilities** (p. 425) interface provides access to random file operations.

To obtain: QueryInterface on **nsIPluginManager** (p. 462).

Definition at line 50 of file nsFileUtilities.idl.

## 4.656.2 Member Function Documentation

### 4.656.2.1 `getProgramPath()`

```
void nsIFileUtilities::getProgramPath (
    out constCharPtr aProgramPath )
```

Returns the name of the browser executable program.

## Parameters

|                     |                                    |
|---------------------|------------------------------------|
| <i>aProgramPath</i> | - the returned path to the program |
|---------------------|------------------------------------|

## Returns

- NS\_OK if this operation was successful

**4.656.2.2 getTempDirPath()**

```
void nsFileUtilities::getTempDirPath (
    out constCharPtr aTempDirPath )
```

Returns the name of the temporary directory.

## Parameters

|                     |                                           |
|---------------------|-------------------------------------------|
| <i>aTempDirPath</i> | - the returned path to the temp directory |
|---------------------|-------------------------------------------|

## Returns

- NS\_OK if this operation was successful

**4.656.2.3 newTempFileName()**

```
void nsFileUtilities::newTempFileName (
    in string aPrefix,
    in unsigned long aLength,
    in charPtr aBuffer )
```

Returns a unique temporary file name.

## Parameters

|                |                                                          |
|----------------|----------------------------------------------------------|
| <i>aPrefix</i> | - a string to prefix to the temporary file name          |
| <i>aLength</i> | - the length of the resulting buffer to receive the data |
| <i>aBuffer</i> | - the returned temp file name                            |

## Returns

- NS\_OK if this operation was successful

The documentation for this interface was generated from the following file:

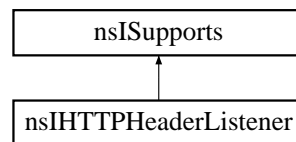
- src/plugin\_win32/include/nsFileUtilities.idl

## 4.657 nsIHTTPHeaderListener Interface Reference

The **nsIHTTPHeaderListener** (p. 428) interface allows plugin authors to access HTTP Response headers after issuing an **nsIPluginHost** (p. 434)::{GetURL,PostURL}() call.

```
import "nsIHTTPHeaderListener.idl";
```

Inheritance diagram for nsIHTTPHeaderListener:



### Public Member Functions

- void **newResponseHeader** (in string headerName, in string headerValue)  
*Called for each HTTP Response header.*
- void **statusLine** (in string line)  
*Called once for the HTTP Response status line.*

### 4.657.1 Detailed Description

The **nsIHTTPHeaderListener** (p. 428) interface allows plugin authors to access HTTP Response headers after issuing an **nsIPluginHost** (p. 434)::{GetURL,PostURL}() call.

IMPORTANT NOTE: The plugin author must provide an instance to {GetURL,PostURL}() that implements both **nsIPluginStreamListener** (p. 475) and **nsIHTTPHeaderListener** (p. 428). This instance is passed in through {GetURL,PostURL}()'s streamListener parameter. The browser will then QI thi streamListener to see if it implements **nsIHTTPHeaderListener** (p. 428).

Definition at line 55 of file nsIHTTPHeaderListener.idl.

### 4.657.2 Member Function Documentation

#### 4.657.2.1 newResponseHeader()

```
void nsIHTTPHeaderListener::newResponseHeader (
    in string headerName,
    in string headerValue )
```

Called for each HTTP Response header.

NOTE: You must copy the values of the params.



### 4.657.2.2 statusLine()

```
void nsIHTTPHeaderListener::statusLine (
    in string line )
```

Called once for the HTTP Response status line.

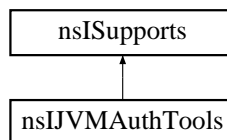
Value does NOT include a terminating newline. NOTE: You must copy this value.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIHTTPHeaderListener.idl

## 4.658 nsIJVMAuthTools Interface Reference

Inheritance diagram for nsIJVMAuthTools:



### Public Member Functions

- **nsIAuthenticationInfo** **GetAuthenticationInfo** (in string protocol, in string host, in PRInt32 port, in string scheme, in string realm)  
*Export AuthenticationInfo interface to JPI.*
- void **SetAuthenticationInfo** (in string protocol, in string host, in PRInt32 port, in string scheme, in string realm, in string username, in string password)  
*Import username/password pair from JPI.*

### 4.658.1 Detailed Description

Definition at line 67 of file nsIJVMAuthTools.idl.

### 4.658.2 Member Function Documentation

#### 4.658.2.1 GetAuthenticationInfo()

```
nsIAuthenticationInfo nsIJVMAuthTools::GetAuthenticationInfo (
    in string protocol,
    in string host,
    in PRInt32 port,
    in string scheme,
    in string realm )
```

Export AuthenticationInfo interface to JPI.

## Parameters

|                                              |                                              |
|----------------------------------------------|----------------------------------------------|
| <i>protocol</i>                              | the protocol that support (http/https)       |
| <i>host</i>                                  | host name                                    |
| <i>port</i>                                  | port number                                  |
| <i>scheme</i>                                | scheme                                       |
| <i>realm</i>                                 | realm                                        |
| <b><i>nsIAuthenticationInfo</i></b> (p. 423) | the AuthenticationInfo interface that export |

## Returns

NS\_OK if success, other if fail

**4.658.2.2 SetAuthenticationInfo()**

```
void nsIJVMAuthTools::SetAuthenticationInfo (
    in string protocol,
    in string host,
    in PRInt32 port,
    in string scheme,
    in string realm,
    in string username,
    in string password )
```

Import username/password pair from JPI.

## Parameters

|                 |                                        |
|-----------------|----------------------------------------|
| <i>protocol</i> | the protocol that support (http/https) |
| <i>host</i>     | host name                              |
| <i>port</i>     | port number                            |
| <i>scheme</i>   | scheme                                 |
| <i>realm</i>    | realm                                  |
| <i>username</i> | user name                              |
| <i>password</i> | password                               |

## Returns

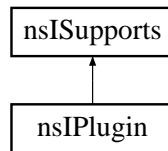
NS\_OK if success, other if fail

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIJVMAuthTools.idl

**4.659 nsIPlugin Interface Reference**

Inheritance diagram for nsIPlugin:



## Public Member Functions

- void **createPluginInstance** (out **nsIPluginInstance** aResult)  
*Creates a new plugin instance, based on a MIME type.*
- void **initialize** ()  
*Initializes the plugin and will be called before any new instances are created.*
- void **shutdown** ()  
*Called when the browser is done with the plugin factory, or when the plugin is disabled by the user.*
- void **getMIMEDescription** (out constCharPtr aMIMEDescription)  
*Returns the MIME description for the plugin.*
- void **getValue** (in nsPluginVariable aVariable, in voidPtr aValue)  
*Returns the value of a variable associated with the plugin.*

### 4.659.1 Detailed Description

Definition at line 51 of file nsIPlugin.idl.

### 4.659.2 Member Function Documentation

#### 4.659.2.1 createPluginInstance()

```
void nsIPlugin::createPluginInstance (
    out nsIPluginInstance aResult )
```

Creates a new plugin instance, based on a MIME type.

This allows different implemenations to be created depending on the specified MIME type.

#### 4.659.2.2 getMIMEDescription()

```
void nsIPlugin::getMIMEDescription (
    out constCharPtr aMIMEDescription )
```

Returns the MIME description for the plugin.

The MIME description is a colon-separated string containg the plugin MIME type, plugin data file extension, and plugin name, e.g.:

"application/x-simple-plugin:smp:Simple Sample Plug-in"

(Corresponds to NPP\_GetMIMEDescription.)

**Parameters**

|                         |                                  |
|-------------------------|----------------------------------|
| <i>aMIMEDescription</i> | - the resulting MIME description |
|-------------------------|----------------------------------|

**Returns**

- NS\_OK if this operation was successful

**4.659.2.3 getValue()**

```
void nsIPlugin::getValue (
    in nsPluginVariable aVariable,
    in voidPtr aValue )
```

Returns the value of a variable associated with the plugin.

(Corresponds to NPP\_GetValue.)

**Parameters**

|                  |                                                     |
|------------------|-----------------------------------------------------|
| <i>aVariable</i> | - the plugin variable to get                        |
| <i>aValue</i>    | - the address of where to store the resulting value |

**Returns**

- NS\_OK if this operation was successful

**4.659.2.4 initialize()**

```
void nsIPlugin::initialize ( )
```

Initializes the plugin and will be called before any new instances are created.

It is passed browserInterfaces on which QueryInterface may be used to obtain an **nsIPluginManager** (p. 462), and other interfaces.

**Parameters**

|                          |                                                                               |
|--------------------------|-------------------------------------------------------------------------------|
| <i>browserInterfaces</i> | - an object that allows access to other browser interfaces via QueryInterface |
|--------------------------|-------------------------------------------------------------------------------|

**Returns**

- NS\_OK if this operation was successful

### 4.659.2.5 shutdown()

```
void nsIPlugin::shutdown ( )
```

Called when the browser is done with the plugin factory, or when the plugin is disabled by the user.

(Corresponds to NPP\_Shutdown.)

#### Returns

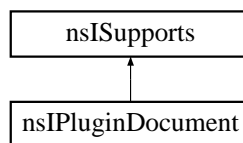
- NS\_OK if this operation was successful

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPlugin.idl

## 4.660 nsIPluginDocument Interface Reference

Inheritance diagram for nsIPluginDocument:



### Public Member Functions

- void **setStreamListener** (in nsIStreamListener aStreamListener)  
*Sets the stream listener for this plugin document.*
- void **print** ()  
*Causes the plugin to print in full-page mode.*

### Data Fields

- readonly attribute boolean **willHandleInstantiation**  
*Check whether the document is planning to handle plug-in instantiation itself.*

### 4.660.1 Detailed Description

Definition at line 42 of file nsIPluginDocument.idl.

### 4.660.2 Field Documentation

#### 4.660.2.1 willHandleInstantiation

readonly attribute boolean nsIPluginDocument::willHandleInstantiation

Check whether the document is planning to handle plug-in instantiation itself.

If not, then the plugin content node should do it.

Definition at line 60 of file nsIPluginDocument.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginDocument.idl

## 4.661 nsIPluginHost Interface Reference

Inheritance diagram for nsIPluginHost:



### Public Member Functions

- void **init** ()
- void **destroy** ()
- void **loadPlugins** ()
- void **reloadPlugins** (in boolean reloadPages)
 

*Causes the plugins directory to be searched again for new plugin libraries.*
- **nsIPlugin** **getPlugin** (in string aMimeType)
- void **instantiateEmbeddedPlugin** (in string aMimeType, in nsIURI aURL, in **nsIPluginInstanceOwner** aOwner)
- void **instantiateFullPagePlugin** (in string aMimeType, in nsIURI aURL, in nsIStreamListenerRef aStreamListener, in **nsIPluginInstanceOwner** aOwner)
- nsIStreamListener **instantiatePluginForChannel** (in nsIChannel aChannel, in **nsIPluginInstanceOwner** aOwner)
 

*Instantiate an embedded plugin for an existing channel.*
- void **setUpPluginInstance** (in string aMimeType, in nsIURI aURL, in **nsIPluginInstanceOwner** aOwner)
- void **isPluginEnabledForType** (in string aMimeType)
- void **isPluginEnabledForExtension** (in string aExtension, in constCharStarRef aMimeType)
- void **getPlugins** (in unsigned long aPluginCount, out nsIDOMPlugin aPluginArray)
- void **getPluginTags** (out unsigned long aPluginCount, [retval, array, size\_is(aPluginCount)] out **nsIPluginTag** aResults)
- void **stopPluginInstance** (in **nsIPluginInstance** aInstance)
- void **handleBadPlugin** (in PRLibraryPtr aLibrary, in **nsIPluginInstance** instance)
- NS\_IMETHOD **GetURL** (nsISupports \*pluginInst, const char \*url, const char \*target=NULL, **nsIPluginStreamListener** \*streamListener=NULL, const char \*altHost=NULL, const char \*referrer=NULL, PRBool forceJSEnabled=PR\_FALSE)=0
 

*Fetches a URL.*

- NS\_IMETHOD **PostURL** (nsISupports \*pluginInst, const char \*url, PRUint32 postDataLen, const char \*postData, PRBool isFile=PR\_FALSE, const char \*target=NULL, **nsIPluginStreamListener** \*stream↵ Listener=NULL, const char \*altHost=NULL, const char \*referrer=NULL, PRBool forceJSEnabled=PR\_F↵ ALSE, PRUint32 postHeadersLength=0, const char \*postHeaders=NULL)=0  
*Posts to a URL with post data and/or post headers.*
- void **findProxyForURL** (in string aURL, out string aResult)  
*Returns the proxy info for a given URL.*
- void **UserAgent** (in nativeChar resultingAgentString)
- void **setIsScriptableInstance** (in **nsIPluginInstance** aInstance, in boolean aScriptable)  
*To notify the plugin manager that the plugin created a script object.*
- void **parsePostBufferToFixHeaders** (in string aInPostData, in unsigned long aInPostDataLen, out string aOutPostData, out unsigned long aOutPostDataLen)  
*This method parses post buffer to find out case insensitive "Content-length" string and CR or LF some where after that, then it assumes there is http headers in the input buffer and continue to search for end of headers (CRLF or LFLF).*
- void **createTmpFileToPost** (in string aPostDataURL, out string aTmpFileName)  
*To create tmp file with Content len header in, it will use by http POST.*
- void **newPluginNativeWindow** (out nsPluginNativeWindowPtr aPluginNativeWindow)  
*Creates a new plugin native window object.*
- void **deletePluginNativeWindow** (in nsPluginNativeWindowPtr aPluginNativeWindow)  
*Deletes plugin native window object created by NewPluginNativeWindow.*
- void **instantiateDummyJavaPlugin** (in **nsIPluginInstanceOwner** aOwner)  
*Instantiate a "dummy" java plugin if a java plugin that supports NPRuntime is installed.*
- void **getPluginName** (in **nsIPluginInstance** aInstance, [shared] out string aPluginName)  
*Get the plugin name for the plugin instance.*
- **nsIPluginTag** **getPluginTagForInstance** (in **nsIPluginInstance** aInstance)  
*Get the plugin tag associated with a given plugin instance.*

## Data Fields

- readonly attribute unsigned long **pluginCount**

## 4.661.1 Detailed Description

Definition at line 69 of file nsIPluginHost.idl.

## 4.661.2 Member Function Documentation

### 4.661.2.1 findProxyForURL()

```
void nsIPluginHost::findProxyForURL (
    in string aURL,
    out string aResult )
```

Returns the proxy info for a given URL.

The caller is required to free the resulting memory with nsIMalloc::Free. The result will be in the following format

i) "DIRECT" – no proxy ii) "PROXY xxx.xxx.xxx.xxx" – use proxy iii) "SOCKS xxx.xxx.xxx.xxx" – use SOCKS iv) Mixed. e.g. "PROXY 111.111.111.111;PROXY 112.112.112.112", "PROXY 111.111.111.111;SOCKS 112.112.↵ 112.112"....

Which proxy/SOCKS to use is determined by the plugin.

#### 4.661.2.2 `getPluginName()`

```
void nsIPluginHost::getPluginName (
    in  nsIPluginInstance aInstance,
    [shared] out string aPluginName )
```

Get the plugin name for the plugin instance.

##### Parameters

|                    |                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>aInstance</i>   | the plugin instance object                                                                                                                                                     |
| <i>aPluginName</i> | returns a pointer to a shared readonly string value, it's only valid for the lifetime of the plugin instance - you must copy the string value if you need it longer than that. |

#### 4.661.2.3 `getPluginTagForInstance()`

```
nsIPluginTag nsIPluginHost::getPluginTagForInstance (
    in  nsIPluginInstance aInstance )
```

Get the plugin tag associated with a given plugin instance.

##### Parameters

|                  |                            |
|------------------|----------------------------|
| <i>aInstance</i> | the plugin instance object |
|------------------|----------------------------|

##### Returns

plugin tag object

#### 4.661.2.4 `GetURL()`

```
NS_IMETHOD nsIPluginHost::GetURL (
    nsISupports * pluginInst,
    const char * url,
    const char * target = NULL,
    nsIPluginStreamListener * streamListener = NULL,
    const char * altHost = NULL,
    const char * referrer = NULL,
    PRBool forceJSEnabled = PR_FALSE ) [pure virtual]
```

Fetches a URL.

(Corresponds to `NPN_GetURL` and `NPN_GetURLNotify`.)



## Parameters

|                       |                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>pluginInst</i>     | - the plugin making the request. If NULL, the URL is fetched in the background.                                                                                                            |
| <i>url</i>            | - the URL to fetch                                                                                                                                                                         |
| <i>target</i>         | - the target window into which to load the URL, or NULL if the data should be returned to the plugin via streamListener.                                                                   |
| <i>streamListener</i> | - a stream listener to be used to return data to the plugin. May be NULL if target is not NULL.                                                                                            |
| <i>altHost</i>        | - an IP-address string that will be used instead of the host specified in the URL. This is used to prevent DNS-spoofing attacks. Can be defaulted to NULL meaning use the host in the URL. |
| <i>referrer</i>       | - the referring URL (may be NULL)                                                                                                                                                          |
| <i>forceJSEnabled</i> | - forces JavaScript to be enabled for 'javascript:' URLs, even if the user currently has JavaScript disabled (usually specify PR_FALSE)                                                    |

## Returns

- NS\_OK if this operation was successful

**4.661.2.5 instantiateDummyJavaPlugin()**

```
void nsIPluginHost::instantiateDummyJavaPlugin (
    in nsIPluginInstanceOwner aOwner )
```

Instantiate a "dummy" java plugin if a java plugin that supports NPRuntime is installed.

This plugin is used for exposing window.java and window.Packages. If the java plugin supports NPRuntime and instantiation was successful, aOwners instance will be non-null, if not, it will be null.

**4.661.2.6 instantiatePluginForChannel()**

```
nsIStreamListener nsIPluginHost::instantiatePluginForChannel (
    in nsIChannel aChannel,
    in nsIPluginInstanceOwner aOwner )
```

Instantiate an embedded plugin for an existing channel.

The caller is responsible for opening the channel. It may or may not be already opened when this function is called.

#### 4.661.2.7 parsePostBufferToFixHeaders()

```
void nsIPluginHost::parsePostBufferToFixHeaders (
    in string aInPostData,
    in unsigned long aInPostDataLen,
    out string aOutPostData,
    out unsigned long aOutPostDataLen )
```

This method parses post buffer to find out case insensitive "Content-length" string and CR or LF some where after that, then it assumes there is http headers in the input buffer and continue to search for end of headers (CRLF or LFLF).

It will *always malloc()* output buffer (caller is responsible to free it) if input buffer starts with LF, which comes from 4.x spec <http://developer.netscape.com/docs/manuals/communicator/plugin/pgfn2.htm#1007754> "If no custom headers are required, simply add a blank line ('\n') to the beginning of the file or buffer.", it skips that '

' and considers rest of the input buffer as data. If "Content-length" string and end of headers is found it substitutes single LF with CRLF in the headers, so the end of headers always will be CRLFCRLF (single CR in headers, if any, remain untouched) else it puts "Content-length: "+size\_of\_data+CRLFCRLF at the beginning of the output buffer and memcpy data to the output buffer

On failure outPostData and outPostDataLen will be set in 0.

##### Parameters

|                        |                              |
|------------------------|------------------------------|
| <i>aInPostData</i>     | - the post data              |
| <i>aInPostDataLen</i>  | - the length aInPostData     |
| <i>aOutPostData</i>    | - the buffer                 |
| <i>aOutPostDataLen</i> | - the length of aOutPostData |

#### 4.661.2.8 PostURL()

```
NS_IMETHOD nsIPluginHost::PostURL (
    nsISupports * pluginInst,
    const char * url,
    PRUint32 postDataLen,
    const char * postData,
    PRBool isFile = PR_FALSE,
    const char * target = NULL,
    nsIPluginStreamListener * streamListener = NULL,
    const char * altHost = NULL,
    const char * referrer = NULL,
    PRBool forceJSEnabled = PR_FALSE,
    PRUint32 postHeadersLength = 0,
    const char * postHeaders = NULL ) [pure virtual]
```

Posts to a URL with post data and/or post headers.

(Corresponds to NPN\_PostURL and NPN\_PostURLNotify.)

## Parameters

|                          |                                                                                                                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>pluginInst</i>        | - the plugin making the request. If NULL, the URL is fetched in the background.                                                                                                            |
| <i>url</i>               | - the URL to fetch                                                                                                                                                                         |
| <i>postDataLength</i>    | - the length of postData (if non-NULL)                                                                                                                                                     |
| <i>postData</i>          | - the data to POST. NULL specifies that there is not post data                                                                                                                             |
| <i>isFile</i>            | - whether the postData specifies the name of a file to post instead of data. The file will be deleted afterwards.                                                                          |
| <i>target</i>            | - the target window into which to load the URL, or NULL if the data should be returned to the plugin via streamListener.                                                                   |
| <i>streamListener</i>    | - a stream listener to be used to return data to the plugin. May be NULL if target is not NULL.                                                                                            |
| <i>altHost</i>           | - an IP-address string that will be used instead of the host specified in the URL. This is used to prevent DNS-spoofing attacks. Can be defaulted to NULL meaning use the host in the URL. |
| <i>referrer</i>          | - the referring URL (may be NULL)                                                                                                                                                          |
| <i>forceJSEnabled</i>    | - forces JavaScript to be enabled for 'javascript:' URLs, even if the user currently has JavaScript disabled (usually specify PR_FALSE)                                                    |
| <i>postHeadersLength</i> | - the length of postHeaders (if non-NULL)                                                                                                                                                  |
| <i>postHeaders</i>       | - the headers to POST. Must be in the form of "HeaderName: HeaderValue\r\n". Each header, including the last, must be followed by "\r\n". NULL specifies that there are no post headers    |

## Returns

- NS\_OK if this operation was successful

## 4.661.2.9 reloadPlugins()

```
void nsIPluginHost::reloadPlugins (
    in boolean reloadPages )
```

Causes the plugins directory to be searched again for new plugin libraries.

## Parameters

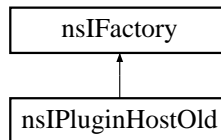
|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| <i>reloadPages</i> | - indicates whether currently visible pages should also be reloaded |
|--------------------|---------------------------------------------------------------------|

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginHost.idl

## 4.662 nsIPluginHostOld Interface Reference

Inheritance diagram for nsIPluginHostOld:



## Public Member Functions

- void **init** ()
- void **destroy** ()
- void **loadPlugins** ()
- **nsIPlugin** **getPluginFactory** (in string aMimeType)
- void **instantiateEmbeddedPlugin** (in string aMimeType, in nsIURI aURL, in **nsIPluginInstanceOwner** aOwner)
- void **instantiateFullPagePlugin** (in string aMimeType, in nsIURI aURL, in nsIStreamListenerRef aStreamListener, in **nsIPluginInstanceOwner** aOwner)
- nsIStreamListener **instantiatePluginForChannel** (in nsIChannel aChannel, in **nsIPluginInstanceOwner** aOwner)  
*Instantiate an embedded plugin for an existing channel.*
- void **setUpPluginInstance** (in string aMimeType, in nsIURI aURL, in **nsIPluginInstanceOwner** aOwner)
- void **isPluginEnabledForType** (in string aMimeType)
- void **isPluginEnabledForExtension** (in string aExtension, in constCharStarRef aMimeType)
- void **getPlugins** (in unsigned long aPluginCount, out nsIDOMPlugin aPluginArray)
- void **getPluginTags** (out unsigned long aPluginCount, [retval, array, size\_is(aPluginCount)] out **nsIPluginTag** aResults)
- void **stopPluginInstance** (in **nsIPluginInstance** aInstance)
- void **handleBadPlugin** (in PRLibraryPtr aLibrary, in **nsIPluginInstance** instance)

## Data Fields

- readonly attribute unsigned long **pluginCount**

### 4.662.1 Detailed Description

Definition at line 64 of file nsIPluginHostOld.idl.

### 4.662.2 Member Function Documentation

#### 4.662.2.1 instantiatePluginForChannel()

```

nsIStreamListener nsIPluginHostOld::instantiatePluginForChannel (
    in nsIChannel aChannel,
    in nsIPluginInstanceOwner aOwner )
  
```

Instantiate an embedded plugin for an existing channel.

The caller is responsible for opening the channel. It may or may not be already opened when this function is called.

The documentation for this interface was generated from the following file:

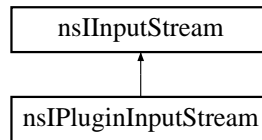
- src/plugin\_win32/include/nsIPluginHostOld.idl

## 4.663 nsIPluginInputStream Interface Reference

The **nsIPluginInputStream** (p. 441) interface ...

```
import "nsIPluginInputStream.idl";
```

Inheritance diagram for nsIPluginInputStream:



### Public Member Functions

- void **getLastModified** (out unsigned long aResult)  
*Corresponds to NPStream's lastmodified field.)*
- void **requestRead** (out **nsByteRange** aRangeList)

### 4.663.1 Detailed Description

The **nsIPluginInputStream** (p. 441) interface ...

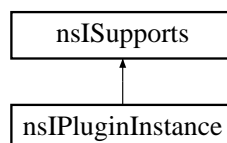
Definition at line 45 of file nsIPluginInputStream.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginInputStream.idl

## 4.664 nsIPluginInstance Interface Reference

Inheritance diagram for nsIPluginInstance:



## Public Member Functions

- void **initialize** (in **nsIPluginInstanceOwner** aOwner, in string aMIMETYPE)  
*Initializes a newly created plugin instance.*
- void **start** ()  
*Called to instruct the plugin instance to start.*
- void **stop** ()  
*Called to instruct the plugin instance to stop, thereby suspending its state.*
- void **setWindow** (in nsPluginWindowPtr aWindow)  
*Called when the window containing the plugin instance changes.*
- void **newStreamToPlugin** (out **nsIPluginStreamListener** aListener)  
*Called to tell the plugin that the initial src/data stream is ready.*
- void **newStreamFromPlugin** (in string aType, in string aTarget, out nsIOutputStream aResult)  
*This operation is called by the plugin instance when it wishes to send a stream of data to the browser.*
- void **print** (in nsPluginPrintPtr aPlatformPrint)  
*Called to instruct the plugin instance to print itself to a printer.*
- void **getValue** (in nsPluginInstanceVariable aVariable, in voidPtr aValue)  
*Returns the value of a variable associated with the plugin instance.*
- void **handleEvent** (in nsPluginEventPtr aEvent, out boolean aHandled)  
*Handles an event.*
- void **invalidateRect** (in nsPluginRectPtr aRect)  
*Corresponds to NPN\_InvalidateRect.*
- void **invalidateRegion** (in nsPluginRegion aRegion)  
*Corresponds to NPN\_InvalidateRegion.*
- void **forceRedraw** ()  
*Corresponds to NPN\_ForceRedraw.*
- void **getMIMETYPE** ([const, shared] out string aValue)  
*Returns the MIME type of the plugin instance.*
- void **showStatus** (in string aMessage)  
*This operation causes status information to be displayed on the window associated with the plugin instance.*
- void **invalidateOwner** ()  
*Drop our reference to our owner.*
- JSObjectPtr **GetJSObject** (in JSContextPtr cx)
- void **pushPopupsEnabledState** (in boolean aEnabled)
- void **popPopupsEnabledState** ()
- void **defineJavaProperties** ()

## Data Fields

- readonly attribute JSContextPtr **JSContext**  
*Get the JavaScript context to this plugin instance.*
- attribute **nsIPluginInstanceOwner** owner
- readonly attribute AString **formValue**
- readonly attribute PRUint16 **pluginAPIVersion**

### 4.664.1 Detailed Description

Definition at line 57 of file nsIPluginInstance.idl.

## 4.664.2 Member Function Documentation

### 4.664.2.1 getMimeType()

```
void nsIPluginInstance::getMimeType (
    [const, shared] out string aValue )
```

Returns the MIME type of the plugin instance.

(Corresponds to NPP\_New's MIMETYPE argument.)

#### Parameters

|                  |                       |
|------------------|-----------------------|
| <i>aMimeType</i> | - resulting MIME type |
|------------------|-----------------------|

#### Returns

- NS\_OK if this operation was successful

### 4.664.2.2 getValue()

```
void nsIPluginInstance::getValue (
    in nsPluginInstanceVariable aVariable,
    in voidPtr aValue )
```

Returns the value of a variable associated with the plugin instance.

#### Parameters

|                  |                                                     |
|------------------|-----------------------------------------------------|
| <i>aVariable</i> | - the plugin instance variable to get               |
| <i>aValue</i>    | - the address of where to store the resulting value |

#### Returns

- NS\_OK if this operation was successful

### 4.664.2.3 handleEvent()

```
void nsIPluginInstance::handleEvent (
    in nsPluginEventPtr aEvent,
    out boolean aHandled )
```

Handles an event.

Note that for Unix and Mac the **nsPluginEvent** (p. 490) structure is different from the old NPEvent structure – it's no longer the native event record, but is instead a struct. This was done for future extensibility, and so that the Mac could receive the window argument too. For Windows and OS2, it's always been a struct, so there's no change for them.

(Corresponds to NPP\_HandleEvent.)

#### Parameters

|                 |                                       |
|-----------------|---------------------------------------|
| <i>aEvent</i>   | - the event to be handled             |
| <i>aHandled</i> | - set to PR_TRUE if event was handled |

#### Returns

- NS\_OK if this operation was successful

#### 4.664.2.4 initialize()

```
void nsIPluginInstance::initialize (
    in  nsIPluginInstanceOwner aOwner,
    in string aMimeType )
```

Initializes a newly created plugin instance.

#### Parameters

|               |                                  |
|---------------|----------------------------------|
| <i>aOwner</i> | - the plugin instance owner      |
| <i>aMime</i>  | - the mime type for the instance |

#### Returns

- NS\_OK if this operation was successful

#### 4.664.2.5 newStreamFromPlugin()

```
void nsIPluginInstance::newStreamFromPlugin (
    in string aType,
    in string aTarget,
    out nsIOutputStream aResult )
```

This operation is called by the plugin instance when it wishes to send a stream of data to the browser.

It constructs a new output stream to which the plugin may send the data. When complete, the Close and Release methods should be called on the output stream.

(Corresponds to NPN\_NewStream.)



## Parameters

|                |                                              |
|----------------|----------------------------------------------|
| <i>aType</i>   | - MIME type of the stream to create          |
| <i>aTarget</i> | - the target window name to receive the data |
| <i>aResult</i> | - the resulting output stream                |

## Returns

- NS\_OK if this operation was successful

**4.664.2.6 newStreamToPlugin()**

```
void nsIPluginInstance::newStreamToPlugin (
    out nsIPluginStreamListener aListener )
```

Called to tell the plugin that the initial src/data stream is ready.

Expects the plugin to return a **nsIPluginStreamListener** (p. 475).

(Corresponds to NPP\_NewStream.)

## Parameters

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| <i>aListener</i> | - listener the browser will use to give the plugin the data |
|------------------|-------------------------------------------------------------|

## Returns

- NS\_OK if this operation was successful

**4.664.2.7 print()**

```
void nsIPluginInstance::print (
    in nsPluginPrintPtr aPlatformPrint )
```

Called to instruct the plugin instance to print itself to a printer.

(Corresponds to NPP\_Print.)

## Parameters

|                       |                                          |
|-----------------------|------------------------------------------|
| <i>aPlatformPrint</i> | - platform-specific printing information |
|-----------------------|------------------------------------------|

**Returns**

- NS\_OK if this operation was successful

**4.664.2.8 setWindow()**

```
void nsIPluginInstance::setWindow (
    in nsPluginWindowPtr aWindow )
```

Called when the window containing the plugin instance changes.

(Corresponds to NPP\_SetWindow.)

**Parameters**

|                |                               |
|----------------|-------------------------------|
| <i>aWindow</i> | - the plugin window structure |
|----------------|-------------------------------|

**Returns**

- NS\_OK if this operation was successful

**4.664.2.9 showStatus()**

```
void nsIPluginInstance::showStatus (
    in string aMessage )
```

This operation causes status information to be displayed on the window associated with the plugin instance.

(Corresponds to NPN\_Status.)

**Parameters**

|                 |                                 |
|-----------------|---------------------------------|
| <i>aMessage</i> | - the status message to display |
|-----------------|---------------------------------|

**Returns**

- NS\_OK if this operation was successful

**4.664.2.10 start()**

```
void nsIPluginInstance::start ( )
```

Called to instruct the plugin instance to start.

This will be called after the plugin is first created and initialized, and may be called after the plugin is stopped (via the Stop method) if the plugin instance is returned to in the browser window's history.

**Returns**

- NS\_OK if this operation was successful

**4.664.2.11 stop()**

```
void nsIPluginInstance::stop ( )
```

Called to instruct the plugin instance to stop, thereby suspending its state.

This method will be called whenever the browser window goes on to display another page and the page containing the plugin goes into the window's history list.

**Returns**

- NS\_OK if this operation was successful

**4.664.3 Field Documentation****4.664.3.1 JSContext**

```
readonly attribute JSContextPtr nsIPluginInstance::JSContext
```

Get the JavaScript context to this plugin instance.

**Parameters**

|                   |                                    |
|-------------------|------------------------------------|
| <i>aJSContext</i> | - the resulting JavaScript context |
|-------------------|------------------------------------|

**Returns**

- NS\_OK if this operation was successful

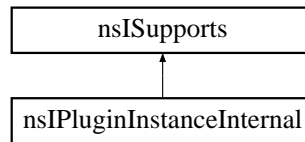
Definition at line 192 of file nsIPluginInstance.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginInstance.idl

**4.665 nsIPluginInstanceInternal Class Reference**

Inheritance diagram for nsIPluginInstanceInternal:



## Public Member Functions

- virtual JSObject \* **GetJSObject** (JSContext \*cx)=0
- virtual nsresult **GetFormValue** (nsAString &aValue)=0
- virtual nsresult **PushPopupsEnabledState** (PRBool aEnabled)=0
- virtual nsresult **PopPopupsEnabledState** ()=0
- virtual PRUint16 **GetPluginAPIVersion** ()=0
- virtual nsresult **DefineJavaProperties** ()=0

### 4.665.1 Detailed Description

Definition at line 51 of file nsIPluginInstanceInternal.h.

The documentation for this class was generated from the following file:

- src/plugin\_win32/include/nsIPluginInstanceInternal.h

## 4.666 nsIPluginInstanceOld Interface Reference

The **nsIPluginInstance** (p. 441) interface is the minimum interface plugin developers need to support in order to implement a plugin instance.

```
import "nsIPluginInstanceOld.idl";
```

Inheritance diagram for nsIPluginInstanceOld:



## Public Member Functions

- void **initialize** (in **nsIPluginInstancePeer** aPeer)  
*Initializes a newly created plugin instance, passing to it the plugin instance peer which it should use for all communication back to the browser.*
- void **start** ()  
*Called to instruct the plugin instance to start.*
- void **stop** ()  
*Called to instruct the plugin instance to stop, thereby suspending its state.*
- void **destroy** ()  
*Called to instruct the plugin instance to destroy itself.*
- void **setWindow** (in nsPluginWindowPtr aWindow)  
*Called when the window containing the plugin instance changes.*
- void **newStream** (out **nsIPluginStreamListener** aListener)  
*Called to tell the plugin that the initial src/data stream is ready.*
- void **print** (in nsPluginPrintPtr aPlatformPrint)  
*Called to instruct the plugin instance to print itself to a printer.*
- void **getValue** (in nsPluginInstanceVariable aVariable, in voidPtr aValue)  
*Returns the value of a variable associated with the plugin instance.*
- void **handleEvent** (in nsPluginEventPtr aEvent, out boolean aHandled)  
*Handles an event.*

## Data Fields

- readonly attribute **nsIPluginInstancePeer** peer  
*Returns a reference back to the plugin instance peer.*

### 4.666.1 Detailed Description

The **nsIPluginInstance** (p. 441) interface is the minimum interface plugin developers need to support in order to implement a plugin instance.

The plugin manager may QueryInterface for more specific types, e.g. **nsILiveConnectPluginInstance**.

(Corresponds to NPP object.)

The old NPP\_Destroy call has been factored into two plugin instance methods:

Stop – called when the plugin instance is to be stopped (e.g. by displaying another plugin manager window, causing the page containing the plugin to become removed from the display).

Destroy – called once, before the plugin instance peer is to be destroyed. This method is used to destroy the plugin instance.

Definition at line 75 of file nsIPluginInstanceOld.idl.

### 4.666.2 Member Function Documentation

#### 4.666.2.1 destroy()

```
void nsIPluginInstanceOld::destroy ( )
```

Called to instruct the plugin instance to destroy itself.

This is called when it become no longer possible to return to the plugin instance, either because the browser window's history list of pages is being trimmed, or because the window containing this page in the history is being closed.

##### Returns

- NS\_OK if this operation was successful

#### 4.666.2.2 getValue()

```
void nsIPluginInstanceOld::getValue (
    in nsPluginInstanceVariable aVariable,
    in voidPtr aValue )
```

Returns the value of a variable associated with the plugin instance.

##### Parameters

|                  |                                                     |
|------------------|-----------------------------------------------------|
| <i>aVariable</i> | - the plugin instance variable to get               |
| <i>aValue</i>    | - the address of where to store the resulting value |

##### Returns

- NS\_OK if this operation was successful

#### 4.666.2.3 handleEvent()

```
void nsIPluginInstanceOld::handleEvent (
    in nsPluginEventPtr aEvent,
    out boolean aHandled )
```

Handles an event.

An nsIEventHandler can also get registered with with nsIPluginManager2::RegisterWindow and will be called whenever an event comes in for that window.

Note that for Unix and Mac the **nsPluginEvent** (p. 490) structure is different from the old NPEvent structure – it's no longer the native event record, but is instead a struct. This was done for future extensibility, and so that the Mac could receive the window argument too. For Windows and OS2, it's always been a struct, so there's no change for them.

(Corresponds to NPP\_HandleEvent.)

## Parameters

|                 |                                       |
|-----------------|---------------------------------------|
| <i>aEvent</i>   | - the event to be handled             |
| <i>aHandled</i> | - set to PR_TRUE if event was handled |

## Returns

- NS\_OK if this operation was successful

**4.666.2.4 initialize()**

```
void nsIPluginInstanceOld::initialize (
    in nsIPluginInstancePeer aPeer )
```

Initializes a newly created plugin instance, passing to it the plugin instance peer which it should use for all communication back to the browser.

## Parameters

|              |                                          |
|--------------|------------------------------------------|
| <i>aPeer</i> | - the corresponding plugin instance peer |
|--------------|------------------------------------------|

## Returns

- NS\_OK if this operation was successful

**4.666.2.5 newStream()**

```
void nsIPluginInstanceOld::newStream (
    out nsIPluginStreamListener aListener )
```

Called to tell the plugin that the initial src/data stream is ready.

Expects the plugin to return a **nsIPluginStreamListener** (p. 475).

(Corresponds to NPP\_NewStream.)

## Parameters

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| <i>aListener</i> | - listener the browser will use to give the plugin the data |
|------------------|-------------------------------------------------------------|

## Returns

- NS\_OK if this operation was successful

#### 4.666.2.6 print()

```
void nsIPluginInstanceOld::print (
    in nsPluginPrintPtr aPlatformPrint )
```

Called to instruct the plugin instance to print itself to a printer.

(Corresponds to NPP\_Print.)

##### Parameters

|                       |                                          |
|-----------------------|------------------------------------------|
| <i>aPlatformPrint</i> | - platform-specific printing information |
|-----------------------|------------------------------------------|

##### Returns

- NS\_OK if this operation was successful

#### 4.666.2.7 setWindow()

```
void nsIPluginInstanceOld::setWindow (
    in nsPluginWindowPtr aWindow )
```

Called when the window containing the plugin instance changes.

(Corresponds to NPP\_SetWindow.)

##### Parameters

|                |                               |
|----------------|-------------------------------|
| <i>aWindow</i> | - the plugin window structure |
|----------------|-------------------------------|

##### Returns

- NS\_OK if this operation was successful

#### 4.666.2.8 start()

```
void nsIPluginInstanceOld::start ( )
```

Called to instruct the plugin instance to start.

This will be called after the plugin is first created and initialized, and may be called after the plugin is stopped (via the Stop method) if the plugin instance is returned to in the browser window's history.

##### Returns

- NS\_OK if this operation was successful



### 4.666.2.9 stop()

```
void nsIPluginInstanceOld::stop ( )
```

Called to instruct the plugin instance to stop, thereby suspending its state.

This method will be called whenever the browser window goes on to display another page and the page containing the plugin goes into the window's history list.

#### Returns

- NS\_OK if this operation was successful

## 4.666.3 Field Documentation

### 4.666.3.1 peer

```
readonly attribute nsIPluginInstancePeer nsIPluginInstanceOld::peer
```

Returns a reference back to the plugin instance peer.

This method is used whenever the browser needs to obtain the peer back from a plugin instance. The implementation of this method should be sure to increment the reference count on the peer by calling AddRef.

#### Parameters

|              |                                      |
|--------------|--------------------------------------|
| <i>aPeer</i> | - the resulting plugin instance peer |
|--------------|--------------------------------------|

#### Returns

- NS\_OK if this operation was successful

Definition at line 96 of file nsIPluginInstanceOld.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginInstanceOld.idl

## 4.667 nsIPluginInstanceOwner Interface Reference

Inheritance diagram for nsIPluginInstanceOwner:



## Public Member Functions

- void **setInstance** (in **nsIPluginInstance** aInstance)  
*Let the owner know what its instance is.*
- void **getInstance** (in nsIPluginInstanceRef aInstance)  
*Get the instance associated with this owner.*
- nsresult **GetInstance** ( **nsIPluginInstance** \*\*aInstance)
- void **getWindow** (in nsPluginWindowStarRef aWindow)  
*Get a handle to the window structure of the owner.*
- void **createWidget** ()  
*Create a place for the plugin to live in the owner's environment.*
- NS\_IMETHOD **GetURL** (const char \*aURL, const char \*aTarget, void \*aPostData, PRUint32 aPostDataLen, void \*aHeadersData, PRUint32 aHeadersDataLen, PRBool aIsFile=PR\_FALSE)=0  
*Called when there is a valid target so that the proper frame can be updated with new content.*
- void **showStatus** (in string aStatusMsg)  
*Show a status message in the host environment.*
- NS\_IMETHOD **ShowStatus** (const PRUnichar \*aStatusMsg)=0
- void **invalidateRect** (in nsPluginRectPtr aRect)  
*Invalidate the rectangle.*
- void **invalidateRegion** (in nsPluginRegion aRegion)  
*Invalidate the region.*
- void **forceRedraw** ()  
*Force a redraw.*
- void **getNetscapeWindow** (in voidPtr aValue)  
*Get NetscapeWindow, corresponds to NPNVnetscapeWindow.*

## Data Fields

- readonly attribute nsPluginMode **mode**  
*Get the display mode for the plugin instance.*
- readonly attribute nsIDocument **document**  
*Get the associated document.*

### 4.667.1 Detailed Description

Definition at line 48 of file nsIPluginInstanceOwner.idl.

### 4.667.2 Member Function Documentation

#### 4.667.2.1 createWidget()

```
void nsIPluginInstanceOwner::createWidget ( )
```

Create a place for the plugin to live in the owner's environment.

this may or may not create a window depending on the windowless state of the plugin instance.

### 4.667.2.2 GetURL()

```

NS_IMETHOD nsIPluginInstanceOwner::GetURL (
    const char * aURL,
    const char * aTarget,
    void * aPostData,
    PRUint32 aPostDataLen,
    void * aHeadersData,
    PRUint32 aHeadersDataLen,
    PRBool aIsFile = PR_FALSE ) [pure virtual]

```

Called when there is a valid target so that the proper frame can be updated with new content.

will not be called with nsnull aTarget.

### 4.667.2.3 getWindow()

```

void nsIPluginInstanceOwner::getWindow (
    in nsPluginWindowStarRef aWindow )

```

Get a handle to the window structure of the owner.

This pointer cannot be made persistent by the caller.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginInstanceOwner.idl

## 4.668 nsIPluginInstancePeer Interface Reference

The **nsIPluginInstancePeer** (p. 455) interface is the set of operations implemented by the browser to support a plugin instance.

```
import "nsIPluginInstancePeer.idl";
```

Inheritance diagram for nsIPluginInstancePeer:



## Public Member Functions

- void **getValue** (in nsPluginInstancePeerVariable aVariable, in voidPtr aValue)  
*Returns the value of a variable associated with the plugin manager.*
- void **newStream** (in nsMimeType aType, in string aTarget, out nsIOutputStream aResult)  
*This operation is called by the plugin instance when it wishes to send a stream of data to the browser.*
- void **showStatus** (in string aMessage)  
*This operation causes status information to be displayed on the window associated with the plugin instance.*
- void **setWindowSize** (in unsigned long aWidth, in unsigned long aHeight)  
*Set the desired size of the window in which the plugin instance lives.*

## Data Fields

- readonly attribute nsMimeType **MIMETYPE**  
*Returns the MIME type of the plugin instance.*
- readonly attribute nsPluginMode **mode**  
*Returns the mode of the plugin instance, i.e.*

### 4.668.1 Detailed Description

The **nsIPluginInstancePeer** (p. 455) interface is the set of operations implemented by the browser to support a plugin instance.

When a plugin instance is constructed, a **nsIPluginInstancePeer** (p. 455) is passed to its initializer representing the instantiation of the plugin on the page.

Other interfaces may be obtained from **nsIPluginInstancePeer** (p. 455) by calling QueryInterface, e.g. **nsIPluginTagInfo** (p. 479).

Definition at line 68 of file nsIPluginInstancePeer.idl.

### 4.668.2 Member Function Documentation

#### 4.668.2.1 getValue()

```
void nsIPluginInstancePeer::getValue (
    in nsPluginInstancePeerVariable aVariable,
    in voidPtr aValue )
```

Returns the value of a variable associated with the plugin manager.

(Corresponds to NPN\_GetValue.)

#### Parameters

|                  |                                                     |
|------------------|-----------------------------------------------------|
| <i>aVariable</i> | - the plugin manager variable to get                |
| <i>aValue</i>    | - the address of where to store the resulting value |

**Returns**

- NS\_OK if this operation was successful

**4.668.2.2 newStream()**

```
void nsIPluginInstancePeer::newStream (
    in nsMIMEType aType,
    in string aTarget,
    out nsIOutputStream aResult )
```

This operation is called by the plugin instance when it wishes to send a stream of data to the browser.

It constructs a new output stream to which the plugin may send the data. When complete, the Close and Release methods should be called on the output stream.

(Corresponds to NPN\_NewStream.)

**Parameters**

|                |                                              |
|----------------|----------------------------------------------|
| <i>aType</i>   | - MIME type of the stream to create          |
| <i>aTarget</i> | - the target window name to receive the data |
| <i>aResult</i> | - the resulting output stream                |

**Returns**

- NS\_OK if this operation was successful

**4.668.2.3 setWindowSize()**

```
void nsIPluginInstancePeer::setWindowSize (
    in unsigned long aWidth,
    in unsigned long aHeight )
```

Set the desired size of the window in which the plugin instance lives.

**Parameters**

|                |                     |
|----------------|---------------------|
| <i>aWidth</i>  | - new window width  |
| <i>aHeight</i> | - new window height |

**Returns**

- NS\_OK if this operation was successful

#### 4.668.2.4 showStatus()

```
void nsIPluginInstancePeer::showStatus (
    in string aMessage )
```

This operation causes status information to be displayed on the window associated with the plugin instance.

(Corresponds to NPN\_Status.)

##### Parameters

|                 |                                 |
|-----------------|---------------------------------|
| <i>aMessage</i> | - the status message to display |
|-----------------|---------------------------------|

##### Returns

- NS\_OK if this operation was successful

### 4.668.3 Field Documentation

#### 4.668.3.1 MIMETYPE

```
readonly attribute nsMIMETYPE nsIPluginInstancePeer::MIMETYPE
```

Returns the MIME type of the plugin instance.

(Corresponds to NPP\_New's MIMETYPE argument.)

##### Parameters

|                  |                       |
|------------------|-----------------------|
| <i>aMIMETYPE</i> | - resulting MIME type |
|------------------|-----------------------|

##### Returns

- NS\_OK if this operation was successful

Definition at line 88 of file nsIPluginInstancePeer.idl.

#### 4.668.3.2 mode

```
readonly attribute nsPluginMode nsIPluginInstancePeer::mode
```

Returns the mode of the plugin instance, i.e.

whether the plugin is embedded in the html, or full page.

(Corresponds to NPP\_New's mode argument.)

## Parameters

|               |                      |
|---------------|----------------------|
| <i>result</i> | - the resulting mode |
|---------------|----------------------|

## Returns

- NS\_OK if this operation was successful

Definition at line 99 of file nsIPluginInstancePeer.idl.

The documentation for this interface was generated from the following file:

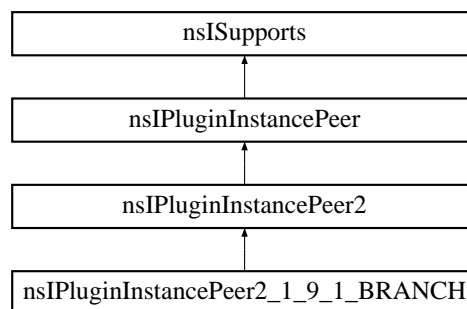
- src/plugin\_win32/include/nsIPluginInstancePeer.idl

## 4.669 nsIPluginInstancePeer2 Interface Reference

The **nsIPluginInstancePeer2** (p. 459) interface extends the **nsIPluginInstancePeer** (p. 455) interface, providing access to functionality provided by newer browsers.

```
import "nsIPluginInstancePeer2.idl";
```

Inheritance diagram for nsIPluginInstancePeer2:



### Data Fields

- readonly attribute JSObjectPtr **JSWindow**  
*Get the JavaScript window object corresponding to this plugin instance.*
- readonly attribute unsigned long **JSThread**  
*Get the JavaScript execution thread corresponding to this plugin instance.*
- readonly attribute JSContextPtr **JSContext**  
*Get the JavaScript context to this plugin instance.*

### Additional Inherited Members

#### 4.669.1 Detailed Description

The **nsIPluginInstancePeer2** (p. 459) interface extends the **nsIPluginInstancePeer** (p. 455) interface, providing access to functionality provided by newer browsers.

All functionality in **nsIPluginInstancePeer** (p. 455) can be mapped to the 4.X plugin API.

Definition at line 65 of file nsIPluginInstancePeer2.idl.

## 4.669.2 Field Documentation

### 4.669.2.1 JSContext

```
readonly attribute JSContextPtr nsIPluginInstancePeer2::JSContext
```

Get the JavaScript context to this plugin instance.

#### Parameters

|                   |                                    |
|-------------------|------------------------------------|
| <i>aJSContext</i> | - the resulting JavaScript context |
|-------------------|------------------------------------|

#### Returns

- NS\_OK if this operation was successful

Definition at line 90 of file nsIPluginInstancePeer2.idl.

### 4.669.2.2 JSThread

```
readonly attribute unsigned long nsIPluginInstancePeer2::JSThread
```

Get the JavaScript execution thread corresponding to this plugin instance.

#### Parameters

|                  |                                      |
|------------------|--------------------------------------|
| <i>aJSThread</i> | - the resulting JavaScript thread id |
|------------------|--------------------------------------|

#### Returns

- NS\_OK if this operation was successful

Definition at line 82 of file nsIPluginInstancePeer2.idl.

### 4.669.2.3 JSWindow

```
readonly attribute JSObjectPtr nsIPluginInstancePeer2::JSWindow
```

Get the JavaScript window object corresponding to this plugin instance.



## Parameters

|                  |                                          |
|------------------|------------------------------------------|
| <i>aJSWindow</i> | - the resulting JavaScript window object |
|------------------|------------------------------------------|

## Returns

- NS\_OK if this operation was successful

Definition at line 73 of file nsIPluginInstancePeer2.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginInstancePeer2.idl

## 4.670 nsIPluginInstancePeer2\_1\_9\_1\_BRANCH Interface Reference

Inheritance diagram for nsIPluginInstancePeer2\_1\_9\_1\_BRANCH:



### Public Member Functions

- void **invalidateOwner** ()  
*Drop our reference to our owner.*

### Additional Inherited Members

#### 4.670.1 Detailed Description

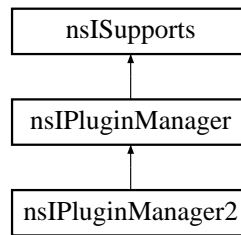
Definition at line 94 of file nsIPluginInstancePeer2.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginInstancePeer2.idl

## 4.671 nsIPluginManager Interface Reference

Inheritance diagram for nsIPluginManager:



### Public Member Functions

- void **GetValue** (in nsPluginManagerVariable variable, in nativeVoid value)  
*Returns the value of a variable associated with the plugin manager.*
- void **reloadPlugins** (in boolean reloadPages)  
*Causes the plugins directory to be searched again for new plugin libraries.*
- void **UserAgent** (in nativeChar resultingAgentString)  
*Returns the user agent string for the browser.*
- NS\_IMETHOD **GetURL** (nsISupports \*pluginInst, const char \*url, const char \*target=NULL, **nsIPluginStreamListener** \*streamListener=NULL, const char \*altHost=NULL, const char \*referrer=NULL, PRBool forceJSEnabled=PR\_FALSE)=0  
*Fetches a URL.*
- NS\_IMETHOD **PostURL** (nsISupports \*pluginInst, const char \*url, PRUint32 postDataLen, const char \*postData, PRBool isFile=PR\_FALSE, const char \*target=NULL, **nsIPluginStreamListener** \*streamListener=NULL, const char \*altHost=NULL, const char \*referrer=NULL, PRBool forceJSEnabled=PR\_FALSE, PRUint32 postHeadersLength=0, const char \*postHeaders=NULL)=0  
*Posts to a URL with post data and/or post headers.*
- void **RegisterPlugin** (in REFNSIID aCID, in string aPluginName, in string aDescription, in nativeChar aMimeTypes, in nativeChar aMimeDescriptions, in nativeChar aFileExtensions, in long aCount)  
*Persistently register a plugin with the plugin manager.*
- void **UnregisterPlugin** (in REFNSIID aCID)  
*Unregister a plugin from the plugin manager.*
- NS\_IMETHOD **GetURLWithHeaders** (nsISupports \*pluginInst, const char \*url, const char \*target=NULL, **nsIPluginStreamListener** \*streamListener=NULL, const char \*altHost=NULL, const char \*referrer=NULL, PRBool forceJSEnabled=PR\_FALSE, PRUint32 getHeadersLength=0, const char \*getHeaders=NULL)=0  
*Fetches a URL, with Headers.*

### 4.671.1 Detailed Description

Definition at line 77 of file nsIPluginManager.idl.

### 4.671.2 Member Function Documentation

### 4.671.2.1 GetURL()

```
NS_IMETHOD nsIPluginManager::GetURL (
    nsISupports * pluginInst,
    const char * url,
    const char * target = NULL,
    nsIPluginStreamListener * streamListener = NULL,
    const char * altHost = NULL,
    const char * referrer = NULL,
    PRBool forceJSEnabled = PR_FALSE ) [pure virtual]
```

Fetches a URL.

(Corresponds to NPN\_GetURL and NPN\_GetURLNotify.)

#### Parameters

|                       |                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>pluginInst</i>     | - the plugin making the request. If NULL, the URL is fetched in the background.                                                                                                            |
| <i>url</i>            | - the URL to fetch                                                                                                                                                                         |
| <i>target</i>         | - the target window into which to load the URL, or NULL if the data should be returned to the plugin via streamListener.                                                                   |
| <i>streamListener</i> | - a stream listener to be used to return data to the plugin. May be NULL if target is not NULL.                                                                                            |
| <i>altHost</i>        | - an IP-address string that will be used instead of the host specified in the URL. This is used to prevent DNS-spoofing attacks. Can be defaulted to NULL meaning use the host in the URL. |
| <i>referrer</i>       | - the referring URL (may be NULL)                                                                                                                                                          |
| <i>forceJSEnabled</i> | - forces JavaScript to be enabled for 'javascript:' URLs, even if the user currently has JavaScript disabled (usually specify PR_FALSE)                                                    |

#### Returns

- NS\_OK if this operation was successful

### 4.671.2.2 GetURLWithHeaders()

```
NS_IMETHOD nsIPluginManager::GetURLWithHeaders (
    nsISupports * pluginInst,
    const char * url,
    const char * target = NULL,
    nsIPluginStreamListener * streamListener = NULL,
    const char * altHost = NULL,
    const char * referrer = NULL,
    PRBool forceJSEnabled = PR_FALSE,
    PRUint32 getHeadersLength = 0,
    const char * getHeaders = NULL ) [pure virtual]
```

Fetches a URL, with Headers.

#### See also

**GetURL** (p. 462). Identical except for additional params headers and headersLen

## Parameters

|                         |                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>getHeadersLength</i> | - the length of getHeaders (if non-NULL)                                                                                                                                              |
| <i>getHeaders</i>       | - the headers to GET. Must be in the form of "HeaderName: HeaderValue\r\n". Each header, including the last, must be followed by "\r\n". NULL specifies that there are no get headers |

## Returns

- NS\_OK if this operation was successful

**4.671.2.3 GetValue()**

```
void nsIPluginManager::GetValue (
    in nsPluginManagerVariable variable,
    in nativeVoid value )
```

Returns the value of a variable associated with the plugin manager.

(Corresponds to NPN\_GetValue.)

## Parameters

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| <i>variable</i> | - the plugin manager variable to get                |
| <i>value</i>    | - the address of where to store the resulting value |

## Returns

- NS\_OK if this operation was successful

**4.671.2.4 PostURL()**

```
NS_IMETHOD nsIPluginManager::PostURL (
    nsISupports * pluginInst,
    const char * url,
    PRUint32 postDataLen,
    const char * postData,
    PRBool isFile = PR_FALSE,
    const char * target = NULL,
    nsIPluginStreamListener * streamListener = NULL,
    const char * altHost = NULL,
    const char * referrer = NULL,
    PRBool forceJSEnabled = PR_FALSE,
    PRUint32 postHeadersLength = 0,
    const char * postHeaders = NULL ) [pure virtual]
```

Posts to a URL with post data and/or post headers.

(Corresponds to NPN\_PostURL and NPN\_PostURLNotify.)

## Parameters

|                          |                                                                                                                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>pluginInst</i>        | - the plugin making the request. If NULL, the URL is fetched in the background.                                                                                                            |
| <i>url</i>               | - the URL to fetch                                                                                                                                                                         |
| <i>postDataLength</i>    | - the length of postData (if non-NULL)                                                                                                                                                     |
| <i>postData</i>          | - the data to POST. NULL specifies that there is not post data                                                                                                                             |
| <i>isFile</i>            | - whether the postData specifies the name of a file to post instead of data. The file will be deleted afterwards.                                                                          |
| <i>target</i>            | - the target window into which to load the URL, or NULL if the data should be returned to the plugin via streamListener.                                                                   |
| <i>streamListener</i>    | - a stream listener to be used to return data to the plugin. May be NULL if target is not NULL.                                                                                            |
| <i>altHost</i>           | - an IP-address string that will be used instead of the host specified in the URL. This is used to prevent DNS-spoofing attacks. Can be defaulted to NULL meaning use the host in the URL. |
| <i>referrer</i>          | - the referring URL (may be NULL)                                                                                                                                                          |
| <i>forceJSEnabled</i>    | - forces JavaScript to be enabled for 'javascript:' URLs, even if the user currently has JavaScript disabled (usually specify PR_FALSE)                                                    |
| <i>postHeadersLength</i> | - the length of postHeaders (if non-NULL)                                                                                                                                                  |
| <i>postHeaders</i>       | - the headers to POST. Must be in the form of "HeaderName: HeaderValue\r\n". Each header, including the last, must be followed by "\r\n". NULL specifies that there are no post headers    |

## Returns

- NS\_OK if this operation was successful

## 4.671.2.5 RegisterPlugin()

```
void nsIPluginManager::RegisterPlugin (
    in REFNSIID aCID,
    in string aPluginName,
    in string aDescription,
    in nativeChar aMimeTypes,
    in nativeChar aMimeDescriptions,
    in nativeChar aFileExtensions,
    in long aCount )
```

Persistently register a plugin with the plugin manager.

aMimeTypes, aMimeDescriptions, and aFileExtensions are parallel arrays that contain information about the MIME types that the plugin supports.

## Parameters

|                          |                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------|
| <i>aCID</i>              | - the plugin's CID                                                                         |
| <i>aPluginName</i>       | - the plugin's name                                                                        |
| <i>aDescription</i>      | - a description of the plugin                                                              |
| <i>aMimeTypes</i>        | - an array of MIME types that the plugin is prepared to handle                             |
| <i>aMimeDescriptions</i> | - an array of descriptions for the MIME types that the plugin can handle.                  |
| <i>aFileExtensions</i>   | - an array of file extensions for the MIME types that the plugin can handle.               |
| <i>aCount</i>            | - the number of elements in the aMimeTypes, aMimeDescriptions, and aFileExtensions arrays. |

**Returns**

- NS\_OK if the operation was successful.

**4.671.2.6 reloadPlugins()**

```
void nsIPluginManager::reloadPlugins (
    in boolean reloadPages )
```

Causes the plugins directory to be searched again for new plugin libraries.

(Corresponds to NPN\_ReloadPlugins.)

**Parameters**

|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| <i>reloadPages</i> | - indicates whether currently visible pages should also be reloaded |
|--------------------|---------------------------------------------------------------------|

**4.671.2.7 UnregisterPlugin()**

```
void nsIPluginManager::UnregisterPlugin (
    in REFNSIID aCID )
```

Unregister a plugin from the plugin manager.

**Parameters**

|             |                                      |
|-------------|--------------------------------------|
| <i>aCID</i> | the CID of the plugin to unregister. |
|-------------|--------------------------------------|

**Returns**

- NS\_OK if the operation was successful.

**4.671.2.8 UserAgent()**

```
void nsIPluginManager::UserAgent (
    in nativeChar resultingAgentString )
```

Returns the user agent string for the browser.

(Corresponds to NPN\_UserAgent.)

## Parameters

|                             |                                   |
|-----------------------------|-----------------------------------|
| <i>resultingAgentString</i> | - the resulting user agent string |
|-----------------------------|-----------------------------------|

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginManager.idl

## 4.672 nsIPluginManager2 Interface Reference

Plugin Manager 2 Interface These extensions to **nsIPluginManager** (p. 462) are only available in Communicator 5.0.

```
import "nsIPluginManager2.idl";
```

Inheritance diagram for nsIPluginManager2:



### Public Member Functions

- void **beginWaitCursor** ()  
*Puts up a wait cursor.*
- void **endWaitCursor** ()  
*Restores the previous (non-wait) cursor.*
- void **supportsURLProtocol** (in string aProtocol, out boolean aResult)  
*Returns true if a URL protocol (e.g.*
- void **notifyStatusChange** (in **nsIPlugin** aPlugin, in nsresult aStatus)  
*This method may be called by the plugin to indicate that an error has occurred, e.g.*
- void **findProxyForURL** (in string aURL, out string aResult)  
*Returns the proxy info for a given URL.*
- void **registerWindow** (in nsIEventHandler aHandler, in nsPluginPlatformWindowRef aWindow)  
*Registers a top-level window with the browser.*
- void **unregisterWindow** (in nsIEventHandler aHandler, in nsPluginPlatformWindowRef aWindow)  
*Unregisters a top-level window with the browser.*
- void **allocateMenuID** (in nsIEventHandler aHandler, in boolean aIsSubmenu, out short aResult)  
*Allocates a new menu ID (for the Mac).*
- void **deallocateMenuID** (in nsIEventHandler aHandler, in short aMenuID)  
*Deallocates a menu ID (for the Mac).*
- void **hasAllocatedMenuID** (in nsIEventHandler aHandler, in short aMenuID, out boolean aResult)  
*Indicates whether this event handler has allocated the given menu ID.*

### 4.672.1 Detailed Description

Plugin Manager 2 Interface These extensions to **nsIPluginManager** (p. 462) are only available in Communicator 5.0.

Definition at line 50 of file nsIPluginManager2.idl.

### 4.672.2 Member Function Documentation

#### 4.672.2.1 allocateMenuID()

```
void nsIPluginManager2::allocateMenuID (
    in nsIEventHandler aHandler,
    in boolean aIsSubmenu,
    out short aResult )
```

Allocates a new menu ID (for the Mac).

##### Parameters

|                   |                                        |
|-------------------|----------------------------------------|
| <i>aHandler</i>   | - the event handler for the window     |
| <i>aIsSubmenu</i> | - whether this is a sub-menu ID or not |
| <i>aResult</i>    | - the resulting menu ID                |

##### Returns

- NS\_OK if this operation was successful

#### 4.672.2.2 beginWaitCursor()

```
void nsIPluginManager2::beginWaitCursor ( )
```

Puts up a wait cursor.

##### Returns

- NS\_OK if this operation was successful

#### 4.672.2.3 deallocateMenuID()

```
void nsIPluginManager2::deallocateMenuID (
    in nsIEventHandler aHandler,
    in short aMenuID )
```

Deallocates a menu ID (for the Mac).



## Parameters

|                 |                                    |
|-----------------|------------------------------------|
| <i>aHandler</i> | - the event handler for the window |
| <i>aMenuID</i>  | - the menu ID                      |

## Returns

- NS\_OK if this operation was successful

**4.672.2.4 endWaitCursor()**

```
void nsIPluginManager2::endWaitCursor ( )
```

Restores the previous (non-wait) cursor.

## Returns

- NS\_OK if this operation was successful

**4.672.2.5 findProxyForURL()**

```
void nsIPluginManager2::findProxyForURL (
    in string aURL,
    out string aResult )
```

Returns the proxy info for a given URL.

The caller is required to free the resulting memory with nsIMalloc::Free. The result will be in the following format

i) "DIRECT" – no proxy ii) "PROXY xxx.xxx.xxx.xxx" – use proxy iii) "SOCKS xxx.xxx.xxx.xxx" – use SOCKS iv) Mixed. e.g. "PROXY 111.111.111.111;PROXY 112.112.112.112", "PROXY 111.111.111.111;SOCKS 112.112.112.112"....

Which proxy/SOCKS to use is determined by the plugin.

**4.672.2.6 hasAllocatedMenuID()**

```
void nsIPluginManager2::hasAllocatedMenuID (
    in nsIEventHandler aHandler,
    in short aMenuID,
    out boolean aResult )
```

Indicates whether this event handler has allocated the given menu ID.

## Parameters

|                 |                                               |
|-----------------|-----------------------------------------------|
| <i>aHandler</i> | - the event handler for the window            |
| <i>aMenuID</i>  | - the menu ID                                 |
| <i>aResult</i>  | - returns PR_TRUE if the menu ID is allocated |

## Returns

- NS\_OK if this operation was successful

**4.672.2.7 notifyStatusChange()**

```
void nsIPluginManager2::notifyStatusChange (
    in nsIPlugin aPlugin,
    in nsresult aStatus )
```

This method may be called by the plugin to indicate that an error has occurred, e.g.

that the plugin has failed or is shutting down spontaneously. This allows the browser to clean up any plugin-specific state.

## Parameters

|                |                                       |
|----------------|---------------------------------------|
| <i>aPlugin</i> | - the plugin whose status is changing |
| <i>aStatus</i> | - the error status value              |

## Returns

- NS\_OK if this operation was successful

**4.672.2.8 registerWindow()**

```
void nsIPluginManager2::registerWindow (
    in nsIEventHandler aHandler,
    in nsPluginPlatformWindowRef aWindow )
```

Registers a top-level window with the browser.

Events received by that window will be dispatched to the event handler specified.

## Parameters

|                 |                                    |
|-----------------|------------------------------------|
| <i>aHandler</i> | - the event handler for the window |
| <i>aWindow</i>  | - the platform window reference    |

**Returns**

- NS\_OK if this operation was successful

**4.672.2.9 supportsURLProtocol()**

```
void nsIPluginManager2::supportsURLProtocol (
    in string aProtocol,
    out boolean aResult )
```

Returns true if a URL protocol (e.g.

"http") is supported.

**Parameters**

|                  |                                     |
|------------------|-------------------------------------|
| <i>aProtocol</i> | - the protocol name                 |
| <i>aResult</i>   | - true if the protocol is supported |

**Returns**

- NS\_OK if this operation was successful

**4.672.2.10 unregisterWindow()**

```
void nsIPluginManager2::unregisterWindow (
    in nsIEventHandler aHandler,
    in nsPluginPlatformWindowRef aWindow )
```

Unregisters a top-level window with the browser.

The handler and window pair should be the same as that specified to RegisterWindow.

**Parameters**

|                 |                                    |
|-----------------|------------------------------------|
| <i>aHandler</i> | - the event handler for the window |
| <i>aWindow</i>  | - the platform window reference    |

**Returns**

- NS\_OK if this operation was successful

The documentation for this interface was generated from the following file:

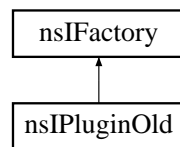
- src/plugin\_win32/include/nsIPluginManager2.idl

## 4.673 nsIPluginOld Interface Reference

The **nsIPlugin** (p. 430) interface is the minimum interface plugin developers need to support in order to implement a plugin.

```
import "nsIPluginOld.idl";
```

Inheritance diagram for nsIPluginOld:



### Public Member Functions

- void **createPluginInstance** (in nsISupports aOuter, in nsIIDRef aIID, in string aPluginMimeType, [retval, iid\_is(aIID)] out nsQIResult aResult)  
*Creates a new plugin instance, based on a MIME type.*
- void **initialize** ()  
*Initializes the plugin and will be called before any new instances are created.*
- void **shutdown** ()  
*Called when the browser is done with the plugin factory, or when the plugin is disabled by the user.*
- void **getMIMEDescription** (out constCharPtr aMIMEDescription)  
*Returns the MIME description for the plugin.*
- void **getValue** (in nsPluginVariable aVariable, in voidPtr aValue)  
*Returns the value of a variable associated with the plugin.*

### 4.673.1 Detailed Description

The **nsIPlugin** (p. 430) interface is the minimum interface plugin developers need to support in order to implement a plugin.

The plugin manager may QueryInterface for more specific plugin types, e.g. nsILiveConnectPlugin.

The old NPP\_New plugin operation is now subsumed by two operations:

CreateInstance – called once, after the plugin instance is created. This method is used to initialize the new plugin instance (although the actual plugin instance object will be created by the plugin manager).

nsIPluginInstance::Start – called when the plugin instance is to be started. This happens in two circumstances: (1) after the plugin instance is first initialized, and (2) after a plugin instance is returned to (e.g. by going back in the window history) after previously being stopped by the Stop method.

Definition at line 82 of file nsIPluginOld.idl.

### 4.673.2 Member Function Documentation

#### 4.673.2.1 createPluginInstance()

```
void nsIPluginOld::createPluginInstance (
    in nsISupports aOuter,
    in nsIIDRef aIID,
    in string aPluginMIMEType,
    [retval, iid_is(aIID)] out nsQIResult aResult )
```

Creates a new plugin instance, based on a MIME type.

This allows different implemenations to be created depending on the specified MIME type.

#### 4.673.2.2 getMIMEDescription()

```
void nsIPluginOld::getMIMEDescription (
    out constCharPtr aMIMEDescription )
```

Returns the MIME description for the plugin.

The MIME description is a colon-separated string containg the plugin MIME type, plugin data file extension, and plugin name, e.g.:

"application/x-simple-plugin:smp:Simple LiveConnect Sample Plug-in"

(Corresponds to NPP\_GetMIMEDescription.)

##### Parameters

|                         |                                  |
|-------------------------|----------------------------------|
| <i>aMIMEDescription</i> | - the resulting MIME description |
|-------------------------|----------------------------------|

##### Returns

- NS\_OK if this operation was successful

#### 4.673.2.3 getValue()

```
void nsIPluginOld::getValue (
    in nsPluginVariable aVariable,
    in voidPtr aValue )
```

Returns the value of a variable associated with the plugin.

(Corresponds to NPP\_GetValue.)

##### Parameters

|                  |                                                     |
|------------------|-----------------------------------------------------|
| <i>aVariable</i> | - the plugin variable to get                        |
| <i>aValue</i>    | - the address of where to store the resulting value |

**Returns**

- NS\_OK if this operation was successful

**4.673.2.4 initialize()**

```
void nsIPluginOld::initialize ( )
```

Initializes the plugin and will be called before any new instances are created.

It is passed browserInterfaces on which QueryInterface may be used to obtain an **nsIPluginManager** (p. 462), and other interfaces.

**Parameters**

|                          |                                                                               |
|--------------------------|-------------------------------------------------------------------------------|
| <i>browserInterfaces</i> | - an object that allows access to other browser interfaces via QueryInterface |
|--------------------------|-------------------------------------------------------------------------------|

**Returns**

- NS\_OK if this operation was successful

**4.673.2.5 shutdown()**

```
void nsIPluginOld::shutdown ( )
```

Called when the browser is done with the plugin factory, or when the plugin is disabled by the user.

(Corresponds to NPP\_Shutdown.)

**Returns**

- NS\_OK if this operation was successful

The documentation for this interface was generated from the following file:

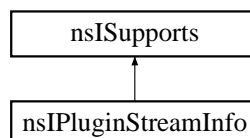
- src/plugin\_win32/include/nsIPluginOld.idl

**4.674 nsIPluginStreamInfo Interface Reference**

**nsIPluginStreamInfo** (p. 474)

```
import "nsIPluginStreamInfo.idl";
```

Inheritance diagram for nsIPluginStreamInfo:



## Public Member Functions

- void **isSeekable** (out boolean aSeekable)
- void **getURL** (out constCharPtr aURL)
- void **requestRead** (in nsByteRangePtr aRangeList)

## Data Fields

- readonly attribute string **contentType**
- readonly attribute unsigned long **length**
- readonly attribute unsigned long **lastModified**
- attribute long **streamOffset**

### 4.674.1 Detailed Description

**nsIPluginStreamInfo** (p. 474)

@status DEPRECATED

Originally published XPCOM Plugin API is now deprecated Developers are welcome to use NPAPI, please refer to: <http://mozilla.org/projects/plugins/>

Definition at line 56 of file nsIPluginStreamInfo.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginStreamInfo.idl

## 4.675 nsIPluginStreamListener Interface Reference

**nsIPluginStreamListener** (p. 475)

```
import "nsIPluginStreamListener.idl";
```

Inheritance diagram for nsIPluginStreamListener:



## Public Member Functions

- void **onStartBinding** (in **nsIPluginStreamInfo** aPluginInfo)  
*Notify the observer that the URL has started to load.*
- void **onDataAvailable** (in **nsIPluginStreamInfo** aPluginInfo, in nsIInputStream aInputStream, in unsigned long aLength)  
*Notify the client that data is available in the input stream.*
- void **onFileAvailable** (in **nsIPluginStreamInfo** aPluginInfo, in string aFileName)  
*Notify the client that data is available in the file.*
- void **onStopBinding** (in **nsIPluginStreamInfo** aPluginInfo, in nsresult aStatus)  
*Notify the observer that the URL has finished loading.*

## Data Fields

- readonly attribute nsPluginStreamType **streamType**

*Gets the type of the stream.*

### 4.675.1 Detailed Description

**nsIPluginStreamListener** (p. 475)

@status DEPRECATED

Originally published XPCOM Plugin API is now deprecated Developers are welcome to use NPAPI, please refer to: <http://mozilla.org/projects/plugins/> The **nsIPluginStreamListener** (p. 475) interface defines the minimum set of functionality that the browser will support if it allows plugins. Plugins can call QueryInterface to determine if a plugin manager implements more specific APIs or other browser interfaces for the plugin to use (e.g. nsINetworkManager).

Definition at line 64 of file nsIPluginStreamListener.idl.

### 4.675.2 Member Function Documentation

#### 4.675.2.1 onDataAvailable()

```
void nsIPluginStreamListener::onDataAvailable (
    in nsIPluginStreamInfo aPluginInfo,
    in nsIInputStream aInputStream,
    in unsigned long aLength )
```

Notify the client that data is available in the input stream.

This method is called whenever data is written into the input stream by the networking library...

#### Parameters

|                     |                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------|
| <i>aPluginInfo</i>  | - plugin stream info                                                                                 |
| <i>aInputStream</i> | - the input stream containing the data. This stream can be either a blocking or non-blocking stream. |
| <i>aLength</i>      | - the amount of data that was just pushed into the stream.                                           |

#### Returns

- the return value is currently ignored.



#### 4.675.2.2 onFileAvailable()

```
void nsIPluginStreamListener::onFileAvailable (
    in    nsIPluginStreamInfo aPluginInfo,
    in string aFileName )
```

Notify the client that data is available in the file.

##### Parameters

|                    |                                            |
|--------------------|--------------------------------------------|
| <i>aPluginInfo</i> | - plugin stream info                       |
| <i>aFileName</i>   | - the name of the file containing the data |

##### Returns

- the return value is currently ignored.

#### 4.675.2.3 onStartBinding()

```
void nsIPluginStreamListener::onStartBinding (
    in    nsIPluginStreamInfo aPluginInfo )
```

Notify the observer that the URL has started to load.

This method is called only once, at the beginning of a URL load.

##### Parameters

|                    |                      |
|--------------------|----------------------|
| <i>aPluginInfo</i> | - plugin stream info |
|--------------------|----------------------|

##### Returns

- the return value is currently ignored, in the future it may be used to cancel the URL load..

#### 4.675.2.4 onStopBinding()

```
void nsIPluginStreamListener::onStopBinding (
    in    nsIPluginStreamInfo aPluginInfo,
    in nsresult aStatus )
```

Notify the observer that the URL has finished loading.

This method is called once when the networking library has finished processing the URL transaction initiated via the nsINetService::Open(...) call.

This method is called regardless of whether the URL loaded successfully.

#### Parameters

|                    |                                             |
|--------------------|---------------------------------------------|
| <i>aPluginInfo</i> | - plugin stream info                        |
| <i>aStatus</i>     | - reason why the stream has been terminated |

#### Returns

- the return value is currently ignored.

### 4.675.3 Field Documentation

#### 4.675.3.1 streamType

readonly attribute nsPluginStreamType nsIPluginStreamListener::streamType

Gets the type of the stream.

#### Parameters

|                    |                          |
|--------------------|--------------------------|
| <i>aStreamType</i> | - the type of the stream |
|--------------------|--------------------------|

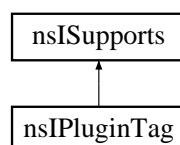
Definition at line 118 of file nsIPluginStreamListener.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginStreamListener.idl

## 4.676 nsIPluginTag Interface Reference

Inheritance diagram for nsIPluginTag:



## Data Fields

- readonly attribute UTF8String **description**
- readonly attribute UTF8String **filename**
- readonly attribute UTF8String **version**
- readonly attribute UTF8String **name**
- attribute boolean **disabled**
- attribute boolean **blocklisted**

### 4.676.1 Detailed Description

Definition at line 42 of file nsIPluginTag.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginTag.idl

## 4.677 nsIPluginTagInfo Interface Reference

Plugin Tag Info Interface This interface provides information about the HTML tag on the page.

```
import "nsIPluginTagInfo.idl";
```

Inheritance diagram for nsIPluginTagInfo:



## Public Member Functions

- void **getAttributes** (in PRUint16Ref aCount, in constCharStarConstStar aNames, in constCharStarConstStar aValues)  
*QueryInterface on **nsIPluginInstancePeer** (p. 455) to get this.*
- void **getAttribute** (in string aName, out constCharPtr aResult)  
*Gets the value for the named attribute.*
- void **getTagText** (out constCharPtr aTagText)  
*Get the complete text of the HTML tag that was used to instantiate this plugin.*
- void **getParameters** (in PRUint16Ref aCount, in constCharStarConstStar aNames, in constCharStarConstStar aValues)  
*Get a ptr to the paired list of parameter names and values, returns the length of the array.*
- void **getParameter** (in string aName, out constCharPtr aResult)  
*Get the value for the named parameter.*
- void **getDocumentBase** (out constCharPtr aDocumentBase)  
*Get the document base.*
- void **getDocumentEncoding** (out constCharPtr aDocumentEncoding)  
*Return an encoding whose name is specified in: <http://java.sun.com/products/jdk/1.4/docs/guide/intl/intl.doc.html#25303>.*
- void **getAlignment** (out constCharPtr aEligment)  
*Get object alignment.*

## Data Fields

- readonly attribute nsPluginTagType **tagType**  
*Get the type of the HTML tag that was used ot instantiate this plugin.*
- readonly attribute unsigned long **width**  
*Get object width.*
- readonly attribute unsigned long **height**  
*Get object height.*
- readonly attribute unsigned long **borderVertSpace**  
*Get border vertical space.*
- readonly attribute unsigned long **borderHorizSpace**  
*Get border horizontal space.*
- readonly attribute unsigned long **uniqueID**  
*Returns a unique id for the current document containing plugin.*
- readonly attribute nsIDOMElement **DOMElement**  
*Returns the DOM element corresponding to the tag which references this plugin in the document.*

### 4.677.1 Detailed Description

Plugin Tag Info Interface This interface provides information about the HTML tag on the page.

Some day this might get superseded by a DOM API.

Definition at line 63 of file nsIPluginTagInfo.idl.

### 4.677.2 Member Function Documentation

#### 4.677.2.1 `getAttribute()`

```
void nsIPluginTagInfo::getAttribute (
    in string aName,
    out constCharPtr aResult )
```

Gets the value for the named attribute.

#### Parameters

|                |                                     |
|----------------|-------------------------------------|
| <i>aName</i>   | - the name of the attribute to find |
| <i>aResult</i> | - the resulting attribute           |

#### Returns

- NS\_OK if this operation was successful, NS\_ERROR\_FAILURE if this operation failed. result is set to NULL if the attribute is not found else to the found value.

#### 4.677.2.2 `getAttributes()`

```
void nsIPluginTagInfo::getAttributes (
    in PRUint16Ref aCount,
    in constCharStarConstStar aNames,
    in constCharStarConstStar aValues )
```

QueryInterface on **nsIPluginInstancePeer** (p. 455) to get this.

(Corresponds to NPP\_New's argc, argn, and argv arguments.) Get a ptr to the paired list of attribute names and values, returns the length of the array.

Each name or value is a null-terminated string.

#### 4.677.2.3 `getParameter()`

```
void nsIPluginTagInfo::getParameter (
    in string aName,
    out constCharPtr aResult )
```

Get the value for the named parameter.

Returns null if the parameter was not set.

##### Parameters

|                |                         |
|----------------|-------------------------|
| <i>aName</i>   | - name of the parameter |
| <i>aResult</i> | - parameter value       |

##### Returns

- NS\_OK if this operation was successful

#### 4.677.2.4 `getParameters()`

```
void nsIPluginTagInfo::getParameters (
    in PRUint16Ref aCount,
    in constCharStarConstStar aNames,
    in constCharStarConstStar aValues )
```

Get a ptr to the paired list of parameter names and values, returns the length of the array.

Each name or value is a null-terminated string.

### 4.677.3 Field Documentation

#### 4.677.3.1 **DOMElement**

readonly attribute nsIDOMElement nsIPluginTagInfo::DOMElement

Returns the DOM element corresponding to the tag which references this plugin in the document.

## Parameters

|                    |                         |
|--------------------|-------------------------|
| <i>aDOMElement</i> | - resulting DOM element |
|--------------------|-------------------------|

## Returns

- NS\_OK if this operation was successful

Definition at line 168 of file nsIPluginTagInfo.idl.

### 4.677.3.2 tagType

```
readonly attribute nsPluginTagType nsIPluginTagInfo::tagType
```

Get the type of the HTML tag that was used ot instantiate this plugin.

Currently supported tags are EMBED, OBJECT and APPLET.

Definition at line 93 of file nsIPluginTagInfo.idl.

The documentation for this interface was generated from the following file:

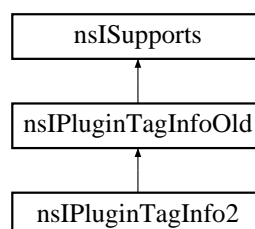
- src/plugin\_win32/include/nsIPluginTagInfo.idl

## 4.678 nsIPluginTagInfo2 Interface Reference

**nsIPluginTagInfo2** (p. 482)

```
import "nsIPluginTagInfo2.idl";
```

Inheritance diagram for nsIPluginTagInfo2:



## Public Member Functions

- void **getTagText** (out constCharPtr aTagText)  
*Get the complete text of the HTML tag that was used to instantiate this plugin.*
- void **getParameters** (in PRUint16Ref aCount, in constCharStarConstStar aNames, in constCharStarConstStar aValues)  
*Get a ptr to the paired list of parameter names and values, returns the length of the array.*
- void **getParameter** (in string aName, out constCharPtr aResult)  
*Get the value for the named parameter.*
- void **getDocumentBase** (out constCharPtr aDocumentBase)  
*Get the document base.*
- void **getDocumentEncoding** (out constCharPtr aDocumentEncoding)  
*Return an encoding whose name is specified in: <http://java.sun.com/products/jdk/1.4.1/docs/guide/intl/intl.doc.html#25303>.*
- void **getAlignment** (out constCharPtr aEligment)  
*Get object alignment.*

## Data Fields

- readonly attribute nsPluginTagType **tagType**  
*Get the type of the HTML tag that was used to instantiate this plugin.*
- readonly attribute unsigned long **width**  
*Get object width.*
- readonly attribute unsigned long **height**  
*Get object height.*
- readonly attribute unsigned long **borderVertSpace**  
*Get border vertical space.*
- readonly attribute unsigned long **borderHorizSpace**  
*Get border horizontal space.*
- readonly attribute unsigned long **uniqueID**  
*Returns a unique id for the current document containing plugin.*
- readonly attribute nsIDOMElement **DOMElement**  
*Returns the DOM element corresponding to the tag which references this plugin in the document.*

### 4.678.1 Detailed Description

**nsIPluginTagInfo2** (p. 482)

@status DEPRECATED

Originally published XPCOM Plugin API is now deprecated Developers are welcome to use NPAPI, please refer to: <http://mozilla.org/projects/plugins/>

Definition at line 52 of file nsIPluginTagInfo2.idl.

### 4.678.2 Member Function Documentation

#### 4.678.2.1 `getParameter()`

```
void nsIPluginTagInfo2::getParameter (
    in string aName,
    out constCharPtr aResult )
```

Get the value for the named parameter.

Returns null if the parameter was not set.



## Parameters

|                |                         |
|----------------|-------------------------|
| <i>aName</i>   | - name of the parameter |
| <i>aResult</i> | - parameter value       |

## Returns

- NS\_OK if this operation was successful

**4.678.2.2 getParameters()**

```
void nsIPluginTagInfo2::getParameters (
    in PRUint16Ref aCount,
    in constCharStarConstStar aNames,
    in constCharStarConstStar aValues )
```

Get a ptr to the paired list of parameter names and values, returns the length of the array.

Each name or value is a null-terminated string.

**4.678.3 Field Documentation****4.678.3.1 DOMElement**

```
readonly attribute nsIDOMElement nsIPluginTagInfo2::DOMElement
```

Returns the DOM element corresponding to the tag which references this plugin in the document.

## Parameters

|                    |                         |
|--------------------|-------------------------|
| <i>aDOMElement</i> | - resulting DOM element |
|--------------------|-------------------------|

## Returns

- NS\_OK if this operation was successful

Definition at line 133 of file nsIPluginTagInfo2.idl.

**4.678.3.2 tagType**

```
readonly attribute nsPluginTagType nsIPluginTagInfo2::tagType
```

Get the type of the HTML tag that was used to instantiate this plugin.

Currently supported tags are EMBED, OBJECT and APPLET.

Definition at line 58 of file nsIPluginTagInfo2.idl.

The documentation for this interface was generated from the following file:

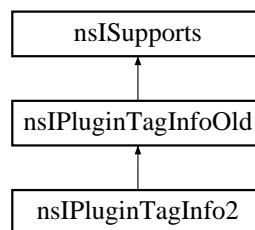
- src/plugin\_win32/include/nsIPluginTagInfo2.idl

## 4.679 nsIPluginTagInfoOld Interface Reference

Plugin Tag Info Interface This interface provides information about the HTML tag on the page.

```
import "nsIPluginTagInfoOld.idl";
```

Inheritance diagram for nsIPluginTagInfoOld:



### Public Member Functions

- void **getAttributes** (in PRUint16Ref aCount, in constCharStarConstStar aNames, in constCharStarConstStar aValues)  
*QueryInterface on **nsIPluginInstancePeer** (p. 455) to get this.*
- void **getAttribute** (in string aName, out constCharPtr aResult)  
*Gets the value for the named attribute.*

### 4.679.1 Detailed Description

Plugin Tag Info Interface This interface provides information about the HTML tag on the page.

Some day this might get superseded by a DOM API.

Definition at line 64 of file nsIPluginTagInfoOld.idl.

### 4.679.2 Member Function Documentation

#### 4.679.2.1 getAttribute()

```
void nsIPluginTagInfoOld::getAttribute (
    in string aName,
    out constCharPtr aResult )
```

Gets the value for the named attribute.

## Parameters

|                |                                     |
|----------------|-------------------------------------|
| <i>aName</i>   | - the name of the attribute to find |
| <i>aResult</i> | - the resulting attribute           |

## Returns

- NS\_OK if this operation was successful, NS\_ERROR\_FAILURE if this operation failed. result is set to NULL if the attribute is not found else to the found value.

4.679.2.2 `getAttributes()`

```
void nsIPluginTagInfoOld::getAttributes (
    in PRUint16Ref aCount,
    in constCharStarConstStar aNames,
    in constCharStarConstStar aValues )
```

QueryInterface on **nsIPluginInstancePeer** (p. 455) to get this.

(Corresponds to NPP\_New's argc, argn, and argv arguments.) Get a ptr to the paired list of attribute names and values, returns the length of the array.

Each name or value is a null-terminated string.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIPluginTagInfoOld.idl

## 4.680 nsIScriptablePlugin Interface Reference

Interface for exposing scriptable plugin methods to JavaScript via XPCConnect.

```
import "nsIScriptablePlugin.idl";
```

Inheritance diagram for nsIScriptablePlugin:



### Data Fields

- readonly attribute nsQIResult **scriptablePeer**  
*The object to be wrapped and exposed to JavaScript.*
- readonly attribute nsIIDPtr **scriptableInterface**  
*The interface that XPCConnect should use when exposing the peer object to JavaScript.*

### 4.680.1 Detailed Description

Interface for exposing scriptable plugin methods to JavaScript via XPCConnect.

Definition at line 45 of file nsIScriptablePlugin.idl.

### 4.680.2 Field Documentation

#### 4.680.2.1 scriptableInterface

```
readonly attribute nsIIDPtr nsIScriptablePlugin::scriptableInterface
```

The interface that XPCConnect should use when exposing the peer object to JavaScript.

All scriptable methods on the interface will be available to JavaScript.

Definition at line 58 of file nsIScriptablePlugin.idl.

#### 4.680.2.2 scriptablePeer

```
readonly attribute nsQIResult nsIScriptablePlugin::scriptablePeer
```

The object to be wrapped and exposed to JavaScript.

It should be an XPCOM object, and it can be the same object as the plugin.

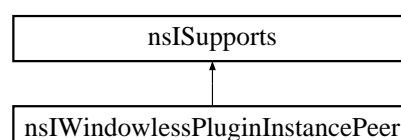
Definition at line 51 of file nsIScriptablePlugin.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIScriptablePlugin.idl

## 4.681 nsIWindowlessPluginInstancePeer Interface Reference

Inheritance diagram for nsIWindowlessPluginInstancePeer:



## Public Member Functions

- void **invalidateRect** (in nsPluginRectPtr aRect)  
*Corresponds to NPN\_InvalidateRect.*
- void **invalidateRegion** (in nsPluginRegion aRegion)  
*Corresponds to NPN\_InvalidateRegion.*
- void **forceRedraw** ()  
*Corresponds to NPN\_ForceRedraw.*

### 4.681.1 Detailed Description

Definition at line 46 of file nsIWindowlessPlugInstPeer.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsIWindowlessPlugInstPeer.idl

## 4.682 nsPIPluginInstancePeer Interface Reference

Inheritance diagram for nsPIPluginInstancePeer:



## Data Fields

- readonly attribute **nsIPluginInstanceOwner** owner

### 4.682.1 Detailed Description

Definition at line 45 of file nsPIPluginInstancePeer.idl.

The documentation for this interface was generated from the following file:

- src/plugin\_win32/include/nsPIPluginInstancePeer.idl

## 4.683 nsPluginEmbedPrint Struct Reference

## Data Fields

- **nsPluginWindow** window
- void \* **platformPrint**

### 4.683.1 Detailed Description

Definition at line 312 of file nsplugindefs.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/nsplugindefs.h

## 4.684 nsPluginEvent Struct Reference

### Data Fields

- void \* **event**

### 4.684.1 Detailed Description

Definition at line 326 of file nsplugindefs.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/nsplugindefs.h

## 4.685 nsPluginFullPrint Struct Reference

### Data Fields

- PRBool **pluginPrinted**
- PRBool **printOne**
- void \* **platformPrint**

### 4.685.1 Detailed Description

Definition at line 304 of file nsplugindefs.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/nsplugindefs.h

## 4.686 nsPluginLogging Class Reference

### Static Public Attributes

- static PRLogModuleInfo \* **gNPNLog**
- static PRLogModuleInfo \* **gNPPLog**
- static PRLogModuleInfo \* **gPluginLog**

### 4.686.1 Detailed Description

Definition at line 85 of file nsPluginLogging.h.

The documentation for this class was generated from the following file:

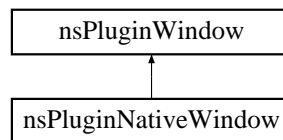
- src/plugin\_win32/include/nsPluginLogging.h

## 4.687 nsPluginNativeWindow Class Reference

base class for native plugin window implementations

```
#include <nsPluginNativeWindow.h>
```

Inheritance diagram for nsPluginNativeWindow:



### Public Member Functions

- nsresult **GetPluginInstance** (nsCOMPtr< **nsIPluginInstance** > &aPluginInstance)  
*!!! CAUTION !!!*
- nsresult **SetPluginInstance** ( **nsIPluginInstance** \*aPluginInstance)
- nsresult **GetPluginWidget** (nsIWidget \*\*aWidget)
- nsresult **SetPluginWidget** (nsIWidget \*aWidget)
- virtual nsresult **CallSetWindow** (nsCOMPtr< **nsIPluginInstance** > &aPluginInstance)

### Protected Attributes

- nsCOMPtr< **nsIPluginInstance** > **mPluginInstance**
- nsCOMPtr< nsIWidget > **mWidget**

### Additional Inherited Members

### 4.687.1 Detailed Description

base class for native plugin window implementations

Definition at line 54 of file nsPluginNativeWindow.h.

### 4.687.2 Member Function Documentation

### 4.687.2.1 GetPluginInstance()

```
nsresult nsPluginNativeWindow::GetPluginInstance (
    nsCOMPtr< nsIPluginInstance > & aPluginInstance ) [inline]
```

!!! CAUTION !!!

The base class `|nsPluginWindow|` is defined as a struct in **nsplugindefs.h** (p. ??), thus it does not have a destructor of its own. One should never attempt to delete `|nsPluginNativeWindow|` object instance (or derivatives) using a pointer of `|nsPluginWindow*|` type. Should such necessity occur it must be properly casted first.

Definition at line 76 of file `nsPluginNativeWindow.h`.

The documentation for this class was generated from the following file:

- `src/plugin_win32/include/nsPluginNativeWindow.h`

## 4.688 nsPluginPrint Struct Reference

### Data Fields

- PRUint16 **mode**
- - union {
    - nsPluginFullPrint** fullPrint
    - nsPluginEmbedPrint** embedPrint
  - print**

### 4.688.1 Detailed Description

Definition at line 317 of file `nsplugindefs.h`.

The documentation for this struct was generated from the following file:

- `src/plugin_win32/include/nsplugindefs.h`

## 4.689 nsPluginRect Struct Reference

### Data Fields

- PRUint16 **top**
- PRUint16 **left**
- PRUint16 **bottom**
- PRUint16 **right**



### 4.689.1 Detailed Description

Definition at line 131 of file nsplugindefs.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/nsplugindefs.h

## 4.690 nsPluginWindow Struct Reference

Inheritance diagram for nsPluginWindow:



### Data Fields

- nsPluginPort \* **window**
- PRInt32 **x**
- PRInt32 **y**
- PRUint32 **width**
- PRUint32 **height**
- **nsPluginRect clipRect**
- nsPluginWindowType **type**

### 4.690.1 Detailed Description

Definition at line 288 of file nsplugindefs.h.

The documentation for this struct was generated from the following file:

- src/plugin\_win32/include/nsplugindefs.h

## 4.691 NurbsTessellator Class Reference

Inheritance diagram for NurbsTessellator:



## Public Member Functions

- **NurbsTessellator** ( **BasicCurveEvaluator** &c, **BasicSurfaceEvaluator** &e)
- void **getnurbsproperty** (long, INREAL \*)
- void **getnurbsproperty** (long, long, INREAL \*)
- void **setnurbsproperty** (long, INREAL)
- void **setnurbsproperty** (long, long, INREAL)
- void **setnurbsproperty** (long, long, INREAL \*)
- void **setnurbsproperty** (long, long, INREAL \*, long, long)
- virtual void **bgnrender** (void)
- virtual void **endrender** (void)
- virtual void **makeobj** (int n)
- virtual void **closeobj** (void)
- virtual void **errorHandler** (int)
- void **bgnsurface** (long)
- void **endsurface** (void)
- void **bgntrim** (void)
- void **endtrim** (void)
- void **bgncurve** (long)
- void **endcurve** (void)
- void **pwlcurve** (long, INREAL[], long, long)
- void **nurbscurve** (long, INREAL[], long, INREAL[], long, long)
- void **nurbssurface** (long, INREAL[], long, INREAL[], long, long, INREAL[], long, long, long)
- void **defineMap** (long, long, long)
- void **redefineMaps** (void)
- void **discardRecording** (void \*)
- void \* **beginRecording** (void)
- void **endRecording** (void)
- void **playRecording** (void \*)
- void **set\_domain\_distance\_u\_rate** (REAL u\_rate)
- void **set\_domain\_distance\_v\_rate** (REAL v\_rate)
- void **set\_is\_domain\_distance\_sampling** (int flag)

## Data Fields

- **Pool** quiltPool

## Protected Attributes

- **Renderhints** renderhints
- **Maplist** maplist
- **Backend** backend

### 4.691.1 Detailed Description

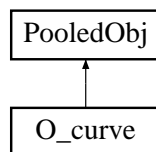
Definition at line 53 of file nurbstess.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/nurbstess.h
- src/libnurbs/internals/nurbsinterfac.cc
- src/libnurbs/internals/nurbstess.cc

## 4.692 O\_curve Struct Reference

Inheritance diagram for O\_curve:



### Data Fields

- - union {
    - O\_nurbscurve \* o\_nurbscurve**
    - O\_pwlcurve \* o\_pwlcurve**
  - } curve**
- Curvetype **curvetype**
- **O\_curve \* next**
- **O\_surface \* owner**
- int **used**
- int **save**
- long **nuid**

### Additional Inherited Members

#### 4.692.1 Detailed Description

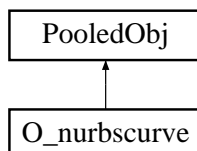
Definition at line 55 of file reader.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h

## 4.693 O\_nurbscurve Struct Reference

Inheritance diagram for O\_nurbscurve:



### Public Member Functions

- **O\_nurbscurve** (long \_type)

## Data Fields

- **Quilt** \* **bezier\_curves**
- long **type**
- REAL **tesselation**
- int **method**
- **O\_nurbcurve** \* **next**
- int **used**
- int **save**
- **O\_curve** \* **owner**

### 4.693.1 Detailed Description

Definition at line 70 of file reader.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h

## 4.694 O\_nurbssurface Struct Reference

Inheritance diagram for O\_nurbssurface:



## Public Member Functions

- **O\_nurbssurface** (long \_type)

## Data Fields

- **Quilt** \* **bezier\_patches**
- long **type**
- **O\_surface** \* **owner**
- **O\_nurbssurface** \* **next**
- int **save**
- int **used**

### 4.694.1 Detailed Description

Definition at line 101 of file reader.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h

## 4.695 O\_pwlcurve Class Reference

Inheritance diagram for O\_pwlcurve:



### Public Member Functions

- **O\_pwlcurve** (long, long, INREAL \*, long, **TrimVertex** \*)

### Data Fields

- **TrimVertex** \* pts
- int npts
- **O\_pwlcurve** \* next
- int used
- int save
- **O\_curve** \* owner

### 4.695.1 Detailed Description

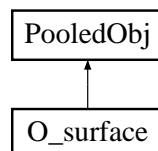
Definition at line 83 of file reader.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/reader.h
- src/libnurbs/internals/reader.cc

## 4.696 O\_surface Struct Reference

Inheritance diagram for O\_surface:



### Data Fields

- **O\_nurbssurface** \* o\_nurbssurface
- **O\_trim** \* o\_trim
- int save
- long nuid

## Additional Inherited Members

### 4.696.1 Detailed Description

Definition at line 112 of file reader.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h

## 4.697 O\_trim Struct Reference

Inheritance diagram for O\_trim:



### Data Fields

- **O\_curve \* o\_curve**
- **O\_trim \* next**
- **int save**

## Additional Inherited Members

### 4.697.1 Detailed Description

Definition at line 94 of file reader.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h

## 4.698 ObjectType Struct Reference

### Data Fields

- unsigned char **entityKind**  
*Kind of entity.*
- unsigned char **domain**  
*Domain of entity (air, surface, subsurface, space, etc)*
- unsigned short **country**  
*country to which the design of the entity is attributed*
- unsigned char **category**  
*category of entity*
- unsigned char **subcategory**  
*subcategory of entity*

### 4.698.1 Detailed Description

Definition at line 240 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.699 OneByteChunk Struct Reference

### Data Fields

- char **otherParameters** [1]  
*one byte of arbitrary data*

### 4.699.1 Detailed Description

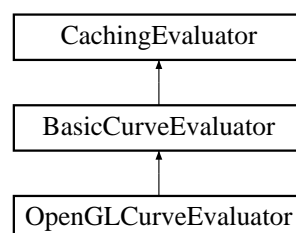
Definition at line 216 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.700 OpenGLCurveEvaluator Class Reference

Inheritance diagram for OpenGLCurveEvaluator:



## Public Member Functions

- void **range1f** (long, REAL \*, REAL \*)
- void **domain1f** (REAL, REAL)
- void **addMap** (CurveMap \*)
- void **enable** (long)
- void **disable** (long)
- void **bgnmap1f** (long)
- void **map1f** (long, REAL, REAL, long, long, REAL \*)
- void **mapgrid1f** (long, REAL, REAL)
- void **mapmesh1f** (long, long, long)
- void **evalpoint1i** (long)
- void **evalcoord1f** (long, REAL)
- void **endmap1f** (void)
- void **bgnline** (void)
- void **endline** (void)
- void **put\_vertices\_call\_back** (int flag)
- void **putCallBack** (GLenum which, \_GLUfuncptr fn)
- void **set\_callback\_userdata** (void \*data)
- void **inMap1f** (int which, int dimension, REAL ulower, REAL uupper, int ustride, int uorder, REAL \*ctlpoints)
- void **inPreEvaluate** (int order, REAL vprime, REAL \*coeff)
- void **inDoDomain1** ( **curveEvalMachine** \*em, REAL u, REAL \*retPoint)
- void **inDoEvalCoord1** (REAL u)
- void **inMapMesh1f** (int umin, int umax)
- void (GLAPIENTRY \*beginCallBackN)(GLenum type)
- void (GLAPIENTRY \*endCallBackN)(void)
- void (GLAPIENTRY \*vertexCallBackN)(const GLfloat \*vert)
- void (GLAPIENTRY \*normalCallBackN)(const GLfloat \*normal)
- void (GLAPIENTRY \*colorCallBackN)(const GLfloat \*color)
- void (GLAPIENTRY \*texcoordCallBackN)(const GLfloat \*texcoord)
- void (GLAPIENTRY \*beginCallBackData)(GLenum type)
- void (GLAPIENTRY \*endCallBackData)(void \*data)
- void (GLAPIENTRY \*vertexCallBackData)(const GLfloat \*vert)
- void (GLAPIENTRY \*normalCallBackData)(const GLfloat \*normal)
- void (GLAPIENTRY \*colorCallBackData)(const GLfloat \*color)
- void (GLAPIENTRY \*texcoordCallBackData)(const GLfloat \*texcoord)
- void **beginCallBack** (GLenum type, void \*data)
- void **endCallBack** (void \*data)
- void **vertexCallBack** (const GLfloat \*vert, void \*data)
- void **normalCallBack** (const GLfloat \*normal, void \*data)
- void **colorCallBack** (const GLfloat \*color, void \*data)
- void **texcoordCallBack** (const GLfloat \*texcoord, void \*data)

## Data Fields

- **curveEvalMachine** em\_vertex
- **curveEvalMachine** em\_normal
- **curveEvalMachine** em\_color
- **curveEvalMachine** em\_texcoord
- int vertex\_flag
- int normal\_flag
- int color\_flag
- int texcoord\_flag
- REAL global\_grid\_u0
- REAL global\_grid\_u1
- int global\_grid\_nu
- void \* data
- void \* userData



## Additional Inherited Members

### 4.700.1 Detailed Description

Definition at line 67 of file glcurveval.h.

The documentation for this class was generated from the following files:

- src/libnurbs/interface/glcurveval.h
- src/libnurbs/interface/glcurveval.cc
- src/libnurbs/interface/incurveeval.cc

## 4.701 OpenGLSurfaceEvaluator Class Reference

Inheritance diagram for OpenGLSurfaceEvaluator:



## Public Member Functions

- void **polymode** (long style)
- void **range2f** (long, REAL \*, REAL \*)
- void **domain2f** (REAL, REAL, REAL, REAL)
- void **addMap** (SurfaceMap \*)
- void **enable** (long)
- void **disable** (long)
- void **bgnmap2f** (long)
- void **map2f** (long, REAL, REAL, long, long, REAL, REAL, long, long, REAL \*)
- void **mapgrid2f** (long, REAL, REAL, long, REAL, REAL)
- void **mapmesh2f** (long, long, long, long, long)
- void **evalcoord2f** (long, REAL, REAL)
- void **evalpoint2i** (long, long)
- void **endmap2f** (void)
- void **bgnline** (void)
- void **endline** (void)
- void **bgnclosedline** (void)
- void **endclosedline** (void)
- void **bgntmesh** (void)
- void **swaptmesh** (void)
- void **endtmesh** (void)
- void **bgnqstrip** (void)
- void **endqstrip** (void)
- void **bgntfan** (void)
- void **endtfan** (void)

- void **evalUStrip** (int n\_upper, REAL v\_upper, REAL \*upper\_val, int n\_lower, REAL v\_lower, REAL \*lower\_val)
- void **evalVStrip** (int n\_left, REAL u\_left, REAL \*left\_val, int n\_right, REAL u\_right, REAL \*right\_val)
- void **coord2f** (REAL, REAL)
- void **point2i** (long, long)
- void **newtmeshvert** (REAL, REAL)
- void **newtmeshvert** (long, long)
- void **putCallback** (GLenum which, \_GLUfuncptr fn)
- int **get\_vertices\_call\_back** ()
- void **put\_vertices\_call\_back** (int flag)
- void **put\_callback\_auto\_normal** (int flag)
- int **get\_callback\_auto\_normal** ()
- void **set\_callback\_userData** (void \*data)
- void **LOD\_eval\_list** (int level)

## Additional Inherited Members

### 4.701.1 Detailed Description

Definition at line 101 of file glsurfeval.h.

The documentation for this class was generated from the following files:

- src/libnurbs/interface/glsurfeval.h
- src/libnurbs/interface/glsurfeval.cc
- src/libnurbs/interface/insurfeval.cc

## 4.702 opened\_file Struct Reference

### Data Fields

- const char \* **fileFileName**
- int **fileDescriptor**
- int **fileDataSize**
- char \* **fileData**
- int **imageHeight**
- int **imageWidth**
- bool **imageAlpha**
- int **imageChannels**

### 4.702.1 Detailed Description

Definition at line 46 of file io\_files.h.

The documentation for this struct was generated from the following file:

- src/lib/io\_files.h

## 4.703 orient\_XYZA Struct Reference

### Data Fields

- GLDOUBLE **x**
- GLDOUBLE **y**
- GLDOUBLE **z**
- GLDOUBLE **a**

### 4.703.1 Detailed Description

Definition at line 35 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.704 Orientation Struct Reference

### Data Fields

- float **psi**
- float **theta**
- float **phi**

### 4.704.1 Detailed Description

Definition at line 209 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.705 particle Struct Reference

### Data Fields

- float **age**
- float **lifespan**
- float **size** [2]
- float **position** [3]
- float **velocity** [3]
- float **origin** [3]
- float **mass**
- float **surfaceArea**

### 4.705.1 Detailed Description

Definition at line 335 of file Component\_ParticleSystems.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_ParticleSystems.c

## 4.706 Patch Class Reference

### Public Member Functions

- **Patch** ( **Quilt** \*, REAL \*, REAL \*, **Patch** \*)
- **Patch** ( **Patch** &, int, REAL, **Patch** \*)
- void **bbox** (void)
- void **clamp** (void)
- void **getstepsize** (void)
- int **cullCheck** (void)
- int **needsSubdivision** (int)
- int **needsSamplingSubdivision** (void)
- int **needsNonSamplingSubdivision** (void)
- int **get\_uorder** ()
- int **get\_vorder** ()

### Friends

- class **Subdivider**
- class **Quilt**
- class **Patchlist**

### 4.706.1 Detailed Description

Definition at line 62 of file patch.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/patch.h
- src/libnurbs/internals/patch.cc

## 4.707 Patchlist Class Reference

### Public Member Functions

- **Patchlist** ( **Quilt** \*, REAL \*, REAL \*)
- **Patchlist** ( **Patchlist** &, int, REAL)
- void **bbox** ()
- int **cullCheck** (void)
- void **getstepsize** (void)
- int **needsNonSamplingSubdivision** (void)
- int **needsSamplingSubdivision** (void)
- int **needsSubdivision** (int)
- REAL **getStepsize** (int)
- void **getRanges** (REAL ranges[4])
- int **get\_uorder** ()
- int **get\_vorder** ()

## Friends

- class **Subdivider**

### 4.707.1 Detailed Description

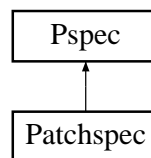
Definition at line 45 of file patchlist.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/patchlist.h
- src/libnurbs/internals/patchlist.cc

## 4.708 Patchspec Struct Reference

Inheritance diagram for Patchspec:



## Public Member Functions

- void **clamp** (REAL)
- void **getstepsize** (REAL)
- void **singleStep** (void)

## Data Fields

- int **order**
- int **stride**

### 4.708.1 Detailed Description

Definition at line 54 of file patch.h.

The documentation for this struct was generated from the following files:

- src/libnurbs/internals/patch.h
- src/libnurbs/internals/patch.cc

## 4.709 pBindable Struct Reference

### Data Fields

- struct **sNavInfo** naviinfo
- **bindablestack** bstack

### 4.709.1 Detailed Description

Definition at line 93 of file Bindable.c.

The documentation for this struct was generated from the following file:

- src/lib/x3d\_parser/Bindable.c

## 4.710 pcollision Struct Reference

### Data Fields

- float \* **prd\_newc\_floats**
- unsigned int **prd\_newc\_floats\_size**
- struct **point\_XYZ** \* **prd\_normals**
- int **prd\_normals\_size**
- struct **point\_XYZ** \* **clippedPoly1**
- int **clippedPoly1Size**
- struct **point\_XYZ** \* **clippedPoly2**
- int **clippedPoly2Size**
- struct **point\_XYZ** \* **clippedPoly3**
- int **clippedPoly3Size**
- struct **point\_XYZ** \* **clippedPoly4**
- int **clippedPoly4Size**
- struct **point\_XYZ** \* **clippedPoly5**
- int **clippedPoly5Size**
- struct **point\_XYZ** **res**
- double **get\_poly\_mindisp**
- struct **sCollisionInfo** CollisionInfo
- struct **sFallInfo** FallInfo
- bool **OpenCL\_Collision\_Program\_initialized**

### 4.710.1 Detailed Description

Definition at line 80 of file Collision.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Collision.c

## 4.711 pcommon Struct Reference

### Data Fields

- int **itrap**
- float **myFps**
- int **target\_frames\_per\_second**
- char **myMenuStatus** [MAXSTAT]
- char **messagebar** [MAXSTAT]
- char **fpsbar** [16]
- char **distbar** [16]
- char **window\_title** [MAXTITLE]
- int **cursorStyle**
- int **promptForURL**
- int **promptForFile**
- int **sb\_hasString**
- char **buffer** [200]
- int **showConsoleText**
- void \* **colorScheme**
- int **colorSchemeChanged**
- int **pin\_statusbar**
- int **pin\_menubar**
- int **want\_menubar**
- int **want\_statusbar**
- struct **Vector** \* **keyvals**
- float **density\_factor**
- int **pedal**
- int **hover**
- int **jsengine**
- int **jsengine\_variant**
- int **draw\_bounding\_boxes**

### 4.711.1 Detailed Description

Definition at line 58 of file common.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/common.c

## 4.712 pComponent\_CubeMapTexturing Struct Reference

### Data Fields

- Stack \* **gencube\_stack**

### 4.712.1 Detailed Description

Definition at line 1152 of file Component\_CubeMapTexturing.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_CubeMapTexturing.c

## 4.713 pComponent\_EnvironSensor Struct Reference

### Data Fields

- int **candoVisibility**

### 4.713.1 Detailed Description

- can we do a VisibiltySensor? Only if we have OpenGL support for OcclusionCulling \*/

Definition at line 50 of file Component\_EnvironSensor.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_EnvironSensor.c

## 4.714 pComponent\_Followers Struct Reference

### Data Fields

- int **something**

### 4.714.1 Detailed Description

Definition at line 55 of file Component\_Followers.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Followers.c

## 4.715 pComponent\_Geometry3D Struct Reference

### Data Fields

- int **junk**
- struct **sCollisionGeometry collisionSphere**
- struct **sCollisionGeometry collisionCylinder**
- struct **sCollisionGeometry collisionCone**



### 4.715.1 Detailed Description

Definition at line 78 of file Component\_Geometry3D.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geometry3D.c

## 4.716 pComponent\_Geospatial Struct Reference

### Data Fields

- int **geoLodLevel**
- void \* **gcgdpars** [50]
- **Stack** \* **planet\_stack**
- **Stack** \* **current\_planet\_stack**

### 4.716.1 Detailed Description

Definition at line 485 of file Component\_Geospatial.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geospatial.c

## 4.717 pComponent\_HAnim Struct Reference

### Data Fields

- struct **X3D\_HAnimHumanoid** \* **HH**
- double **HHMatrix** [16]

### 4.717.1 Detailed Description

Definition at line 243 of file Component\_HAnim.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_HAnim.c

## 4.718 pComponent\_KeyDevice Struct Reference

### Data Fields

- struct **Vector** \* **keySink**

### 4.718.1 Detailed Description

Definition at line 213 of file Component\_KeyDevice.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_KeyDevice.c

## 4.719 pComponent\_Layering Struct Reference

### Data Fields

- int **layerId**
- int **saveActive**
- int **binding\_stack\_set**
- struct **X3D\_Node** \* **layersetnode**

### 4.719.1 Detailed Description

Definition at line 66 of file Component\_Layering.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Layering.c

## 4.720 pComponent\_Layout Struct Reference

### Data Fields

- **Stack** \* **layout\_scale\_stack**

### 4.720.1 Detailed Description

Definition at line 76 of file Component\_Layout.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Layout.c

## 4.721 pComponent\_NURBS Struct Reference

### Data Fields

- void \* **nada**

### 4.721.1 Detailed Description

Definition at line 56 of file Component\_NURBS.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_NURBS.c

## 4.722 pComponent\_ParticleSystems Struct Reference

### Data Fields

- int **something**

### 4.722.1 Detailed Description

Definition at line 57 of file Component\_ParticleSystems.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_ParticleSystems.c

## 4.723 pComponent\_Picking Struct Reference

### Data Fields

- **Stack \* stack\_nodesdistance**
- **Stack \* stack\_intersections**
- **Stack \* stack\_pointsinside**

### 4.723.1 Detailed Description

Definition at line 60 of file Component\_Picking.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Picking.c

## 4.724 pComponent\_ProgrammableShaders Struct Reference

### Data Fields

- **Stack \* effect\_stack**
- int **effectCount**

### 4.724.1 Detailed Description

Definition at line 108 of file Component\_ProgrammableShaders.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_ProgrammableShaders.c

## 4.725 pComponent\_Rendering Struct Reference

### Data Fields

- **Stack** \* **clipplane\_stack**
- float **clipplanes** [4 \*FW\_MAXCLIPPLANES]

### 4.725.1 Detailed Description

Definition at line 48 of file Component\_Rendering.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Rendering.c

## 4.726 pComponent\_RigidBodyPhysics Struct Reference

### Data Fields

- int **something**

### 4.726.1 Detailed Description

Definition at line 64 of file Component\_RigidBodyPhysics.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_RigidBodyPhysics.c

## 4.727 pComponent\_Shape Struct Reference

### Data Fields

- struct **matpropstruct** **appearanceProperties**
- struct **X3D\_Node** \* **this\_textureTransform**
- struct **X3D\_TwoSidedMaterial** \* **material\_twoSided**
- struct **X3D\_Material** \* **material\_oneSided**
- struct **X3D\_Node** \* **userShaderNode**
- int **modulation**

### 4.727.1 Detailed Description

Definition at line 49 of file Component\_Shape.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Shape.c

## 4.728 pComponent\_Sound Struct Reference

### Data Fields

- int **soundWarned**
- int **SoundSourceNumber**
- void \* **alContext**
- float **AC\_LastDuration** [50]

### 4.728.1 Detailed Description

Definition at line 97 of file Component\_Sound.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Sound.c

## 4.729 pComponent\_Text Struct Reference

### Data Fields

- FT\_Library **library**
- FT\_Face **font\_face** [num\_fonts]
- int **font\_state** [num\_fonts]
- FT\_Glyph **glyphs** [MAX\_GLYPHS]
- int **cur\_glyph**
- int **TextVerbose**
- int **rowvec\_allocn**
- **row32** \* **rowvec**
- FT\_Outline\_Funcs **FW\_outline\_interface**
- char \* **font\_directory**
- char **thisfontname** [fp\_name\_len]
- double **pen\_x**
- double **pen\_y**
- double **shrink\_x**
- double **shrink\_y**
- float **TextZdist**
- double **size**
- double **pointsize**
- int **myff**

- int **FW\_RIA** [500]
- int **FW\_RIA\_indx**
- struct **X3D\_PolyRep** \* **FW\_rep\_**
- int **FW\_pointctr**
- int **indx\_count**
- int **coordmaxsize**
- int **cindexmaxsize**
- int **contour\_started**
- FT\_Vector **last\_point**
- int **FW\_Vertex**
- int **started**
- GLfloat \* **textpanel\_vert**
- GLfloat \* **textpanel\_tex**
- GLushort \* **textpanel\_ind**
- int **textpanel\_size**
- int **textpanel\_vert\_size**
- int **textpanel\_tex\_size**
- int **textpanel\_ind\_size**
- struct **Vector** \* **font\_table**
- struct **Vector** \* **atlas\_table**
- GLuint **positionLoc**
- GLuint **texCoordLoc**
- GLuint **textureLoc**
- GLuint **color4fLoc**
- GLuint **textureID**
- GLuint **blendLoc**
- GLuint **modelviewLoc**
- GLuint **projectionLoc**
- GLuint **programObject**

#### 4.729.1 Detailed Description

Definition at line 233 of file `Component_Text.c`.

The documentation for this struct was generated from the following file:

- `src/lib/scenegraph/Component_Text.c`

### 4.730 pComponent\_VolumeRendering Struct Reference

#### Data Fields

- GLuint **front\_texture**
- GLuint **back\_texture**
- GLint **ifbobuffer**
- GLint **idepthbuffer**
- int **width**
- int **height**
- GLfloat \* **quad**

### 4.730.1 Detailed Description

Definition at line 184 of file Component\_VolumeRendering.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_VolumeRendering.c

## 4.731 pConsoleMessage Struct Reference

### Data Fields

- int **androidFreeSlot**
- char \*\* **androidMessageSlot**
- int **androidHaveUnreadMessages**
- char **FWbuffer** [STRING\_LENGTH]
- int **maxLineLength**
- int **maxLines**
- int **tabSpaces**
- void(\* **callback** [2])(char \*)
- void(\* **callbackB** [4])(void \*, char \*)
- void \* **dataB** [4]
- int **nbackB**

### 4.731.1 Detailed Description

Definition at line 55 of file ConsoleMessage.c.

The documentation for this struct was generated from the following file:

- src/lib/main/ConsoleMessage.c

## 4.732 pCParse Struct Reference

### Data Fields

- int **ijunk**

### 4.732.1 Detailed Description

Definition at line 50 of file CParse.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParse.c

## 4.733 pCParserParser Struct Reference

### Data Fields

- char **fw\_outline** [2000]
- int **foundInputErrors**
- int **latest\_protoDefNumber**

### 4.733.1 Detailed Description

Definition at line 66 of file CParserParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParserParser.c

## 4.734 pCRoutes Struct Reference

### Data Fields

- struct **FirstStruct** \* **ClockEvents**
- int **num\_ClockEvents**
- int **size\_ClockEvents**
- int **CRoutes\_Initiated**
- int **CRoutes\_Count**
- int **CRoutes\_MAX**
- int **initialEventBeforeRoutesCount**
- int **preRouteTableSize**
- struct **initialRouteStruct** \* **preEvents**
- pthread\_mutex\_t **preRouteLock**
- struct **Vector** \* **routesToRegister**
- pthread\_mutex\_t **insertRouteLock**
- int **thisIntTimeStamp**
- struct **CRStruct** \* **CRoutes**
- struct **Vector** \* **ScriptControl**
- int **JSMMaxScript**
- struct **CRjsnameStruct** \* **JSparamnames**

### 4.734.1 Detailed Description

Definition at line 217 of file CRoutes.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CRoutes.c



## 4.735 pCScripts Struct Reference

### Data Fields

- int **handleCnt**

### 4.735.1 Detailed Description

Definition at line 72 of file CScripts.c.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.c

## 4.736 pCursorDraw Struct Reference

### Data Fields

- GLuint **textureID**
- int **done**

### 4.736.1 Detailed Description

Definition at line 192 of file CursorDraw.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/CursorDraw.c

## 4.737 pdisplay Struct Reference

### Data Fields

- freewrl\_params\_t **params**
- s\_renderer\_capabilities\_t **rdr\_caps**
- char **myMenuStatus** [MAXSTAT]
- int **multi\_window\_capable**

### 4.737.1 Detailed Description

Definition at line 80 of file display.c.

The documentation for this struct was generated from the following file:

- src/lib/display.c

## 4.738 Pdu Struct Reference

### Data Fields

- unsigned char **protocolVersion**  
*The version of the protocol.*
- unsigned char **exerciseID**  
*Exercise ID.*
- unsigned char **pduType**  
*Type of pdu, unique for each PDU class.*
- unsigned char **protocolFamily**  
*value that refers to the protocol family, eg SimulationManagement, et*
- unsigned int **timestamp**  
*Timestamp value.*
- unsigned short **length**  
*Length, in bytes, of the PDU.*
- short **padding**  
*zero-filled array of padding*

### 4.738.1 Detailed Description

Definition at line 597 of file DIS.h.

### 4.738.2 Field Documentation

#### 4.738.2.1 protocolVersion

```
unsigned char Pdu::protocolVersion
```

The version of the protocol.

5=DIS-1995, 6=DIS-1998.

Definition at line 599 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.739 PduContainer Struct Reference

### Data Fields

- int **numberOfPdus**  
*Number of PDUs in the container list.*
- void \* **pdus**  
*record sets*

### 4.739.1 Detailed Description

Definition at line 668 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.740 pEAI\_C\_CommonFunctions Struct Reference

### Data Fields

- struct **VRMLParser** \* **parser**

### 4.740.1 Detailed Description

Definition at line 53 of file EAI\_C\_CommonFunctions.c.

The documentation for this struct was generated from the following file:

- src/lib/input/EAI\_C\_CommonFunctions.c

## 4.741 pEAICore Struct Reference

### Data Fields

- pthread\_mutex\_t **eaibufferlock**

### 4.741.1 Detailed Description

Definition at line 160 of file EAIEventsIn.c.

The documentation for this struct was generated from the following file:

- src/lib/input/EAIEventsIn.c

## 4.742 pEAIEventsIn Struct Reference

### Data Fields

- int **oldCount**
- int **waiting\_for\_anchor**
- struct **X3D\_Anchor** **EAI\_AnchorNode**

#### 4.742.1 Detailed Description

Definition at line 129 of file EAEventsIn.c.

The documentation for this struct was generated from the following file:

- src/lib/input/EAEventsIn.c

### 4.743 pEAIHelpers Struct Reference

#### Data Fields

- struct **Vector** \* **EAINodeIndex**

#### 4.743.1 Detailed Description

Definition at line 97 of file EAIHelpers.c.

The documentation for this struct was generated from the following file:

- src/lib/input/EAIHelpers.c

### 4.744 pedal\_state Struct Reference

#### Data Fields

- int **x**
- int **y**
- int **rx**
- int **ry**
- int **isDown**
- int **initialized**

#### 4.744.1 Detailed Description

Definition at line 2990 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.745 pFrustum Struct Reference

### Data Fields

- GLuint \* **OccQueries**
- GLuint **potentialOccluderCount**
- void \*\* **occluderNodePointer**
- GLuint **OccQuerySize**
- GLuint **OccResultsAvailable**

### 4.745.1 Detailed Description

Definition at line 88 of file Frustum.c.

The documentation for this struct was generated from the following file:

- src/lib/OpenGL/Frustum.c

## 4.746 pict Struct Reference

### Data Fields

- unsigned int **temp\_ref**
- unsigned int **code\_type**
- unsigned int **vbv\_delay**
- int **full\_pel\_forw\_vector**
- unsigned int **forw\_r\_size**
- unsigned int **forw\_f**
- int **full\_pel\_back\_vector**
- unsigned int **back\_r\_size**
- unsigned int **back\_f**
- char \* **extra\_info**
- char \* **ext\_data**
- char \* **user\_data**

### 4.746.1 Detailed Description

Definition at line 131 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.747 pict\_image Struct Reference

### Data Fields

- unsigned char \* **luminance**
- unsigned char \* **Cr**
- unsigned char \* **Cb**
- unsigned char \* **display**
- int **locked**
- TimeStamp **show\_time**

### 4.747.1 Detailed Description

Definition at line 105 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.748 Planet Struct Reference

### Data Fields

- int **ID**
- **Stack** \* **gegs**
- struct **SFVec4d** **autoOrient**
- struct **SFVec3d** **autoOrigin**
- int **autoOriginSet**

### 4.748.1 Detailed Description

Definition at line 465 of file Component\_Geospatial.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geospatial.c

## 4.749 pLoadTextures Struct Reference

### Data Fields

- **s\_list\_t** \* **texture\_request\_list**
- bool **loader\_waiting**
- **s\_list\_t** \* **texture\_list**
- int **TextureParsing**

### 4.749.1 Detailed Description

- is the texture thread up and running yet? \*/

Definition at line 100 of file LoadTextures.c.

The documentation for this struct was generated from the following file:

- src/lib/openssl/LoadTextures.c

## 4.750 pMainloop Struct Reference

### Data Fields

- int **onScreen**
- int **doEvents**
- char \* **PluginFullPath**
- struct **Vector** \* **SensorEvents**
- GLint **viewPort2** [10]
- GLint **viewpointScreenX** [2]
- GLint **viewpointScreenY** [2]
- int **maxbuffers**
- int **bufferarray** [2]
- double **BrowserStartTime**
- double **BrowserInitTime**
- int **keypress\_wait\_for\_settle**
- char \* **keypress\_string**
- unsigned int **loop\_count**
- unsigned int **once**
- unsigned int **slowloop\_count**
- unsigned int **total\_loop\_count**
- int **lastDeltax**
- int **lastDeltay**
- int **lastxx**
- int **lastyy**
- int **ntouch**
- unsigned int **currentTouch**
- struct **Touch** **touchlist** [20]
- int **EMULATE\_MULTITOUCH**
- FILE \* **logfile**
- FILE \* **logerr**
- char \* **logfname**
- int **logging**
- int **keySensorMode**
- int **draw\_initialized**
- int **keywait**
- char **keywaitstring** [25]
- int **fps\_sleep\_remainder**
- double **screenorientationmatrix** [16]
- double **viewtransformmatrix** [16]
- double **posorimatrix** [16]
- double **stereooffsetmatrix** [2][16]

- int **targets\_initialized**
- **targetwindow** cwindows [4]
- void \* **hyper\_switch** [4]
- int **hyper\_case** [4]
- int **nwindow**
- int **windex**
- **Stack** \* **\_vportstack**
- **Stack** \* **\_stagestack**
- **Stack** \* **\_framebufferstack**
- struct **Vector** \* **contenttype\_registry**
- int **mouseDown**
- int **mouseOver**
- struct **pedal\_state** pedalstate

### 4.750.1 Detailed Description

Definition at line 2997 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.751 Point Struct Reference

### Data Fields

- float **x**  
x
- float **y**  
y
- double **x**
- double **y**

### 4.751.1 Detailed Description

Definition at line 642 of file DIS.h.

The documentation for this struct was generated from the following files:

- src/lib/DIS/DIS.h
- src/SSR/point\_in\_poly.c
- src/SSR/SSRServer.c



## 4.752 point\_XYZ Struct Reference

### Data Fields

- GLDOUBLE x
- GLDOUBLE y
- GLDOUBLE z

### 4.752.1 Detailed Description

Definition at line 34 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.753 point\_XYZ3 Struct Reference

### Data Fields

- struct point\_XYZ p1
- struct point\_XYZ p2
- struct point\_XYZ p3

### 4.753.1 Detailed Description

Definition at line 65 of file RenderFuncs.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/RenderFuncs.c

## 4.754 pointer2pointer Struct Reference

### Data Fields

- struct X3D\_Node \* pp
- struct X3D\_Node \* pn

### 4.754.1 Detailed Description

Definition at line 4428 of file CParseParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.c

## 4.755 PointObjectStatePdu Struct Reference

### Data Fields

- struct **SyntheticEnvironmentFamilyPdu** mySyntheticEnvironmentFamilyPdu
- struct **EntityID** objectID  
*Object in synthetic environment.*
- struct **EntityID** referencedObjectID  
*Object with which this point object is associated.*
- unsigned short **updateNumber**  
*unique update number of each state transition of an object*
- unsigned char **forceID**  
*force ID*
- unsigned char **modifications**  
*modifications*
- struct **ObjectType** objectType  
*Object type.*
- struct **Vector3Double** objectLocation  
*Object location.*
- struct **Orientation** objectOrientation  
*Object orientation.*
- double **objectAppearance**  
*Object apperance.*
- struct **SimulationAddress** requesterID  
*requesterID*
- struct **SimulationAddress** receivingID  
*receiver ID*
- unsigned int **pad2**  
*padding*

### 4.755.1 Detailed Description

Definition at line 1359 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.756 polygon Struct Reference

### Data Fields

- int **n**
- double \* **pts**

### 4.756.1 Detailed Description

Definition at line 767 of file SSRServer.c.

The documentation for this struct was generated from the following file:

- src/SSR/SSRServer.c

## 4.757 polyrep\_combiner\_data Struct Reference

### Data Fields

- float \* **coords**
- int \* **counter**
- int \* **ria**
- int \* **riaindex**

### 4.757.1 Detailed Description

Definition at line 969 of file headers.h.

The documentation for this struct was generated from the following file:

- src/lib/main/headers.h

## 4.758 Pool Class Reference

### Public Member Functions

- **Pool** (int, int, const char \*)
- void \* **new\_buffer** (void)
- void **free\_buffer** (void \*)
- void **clear** (void)

### Protected Types

- enum **Magic** { **is\_allocated** = 0xf3a1, **is\_free** = 0xf1a2 }

### Protected Attributes

- **Buffer** \* **freelist**
- char \* **blocklist** [NBLOCKS]
- int **nextblock**
- char \* **curblock**
- int **buffersize**
- int **nextsize**
- int **nextfree**
- int **initsize**
- const char \* **name**
- Magic **magic**

### 4.758.1 Detailed Description

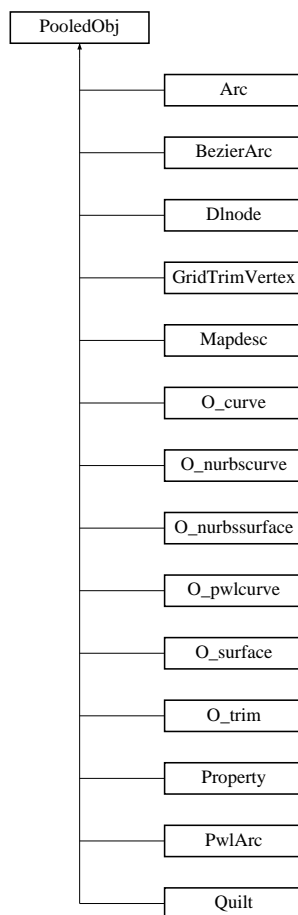
Definition at line 50 of file bufpool.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/bufpool.h
- src/libnurbs/internals/bufpool.cc

## 4.759 PooledObj Class Reference

Inheritance diagram for PooledObj:



### Public Member Functions

- void \* **operator new** (size\_t, **Pool** &)
- void \* **operator new** (size\_t, void \*)
- void \* **operator new** (size\_t s)
- void **operator delete** (void \*)
- void **operator delete** (void \*, **Pool** &)
- void **deleteMe** ( **Pool** &)

### 4.759.1 Detailed Description

Definition at line 118 of file bufpool.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/bufpool.h

## 4.760 pOpenGL\_Utils Struct Reference

### Data Fields

- struct **Vector** \* **linearNodeTable**
- int **potentialHoleCount**
- float **cc\_red**
- float **cc\_green**
- float **cc\_blue**
- float **cc\_alpha**
- pthread\_mutex\_t **memtablelock**
- MATRIX4 **FW\_ModelView** [MAX\_LARGE\_MATRIX\_STACK]
- MATRIX4 **FW\_ProjectionView** [MAX\_SMALL\_MATRIX\_STACK]
- MATRIX4 **FW\_TextureView** [MAX\_SMALL\_MATRIX\_STACK]
- int **modelviewTOS**
- int **projectionviewTOS**
- int **textureviewTOS**
- int **whichMode**
- GLDOUBLE \* **currentMatrix**
- struct **Vector** \* **myShaderTable**
- int **userDefinedShaderCount**
- char \* **userDefinedFragmentShader** [MAX\_USER\_DEFINED\_SHADERS]
- char \* **userDefinedVertexShader** [MAX\_USER\_DEFINED\_SHADERS]
- int **shadingStyle**
- int **maxStackUsed**

### 4.760.1 Detailed Description

Definition at line 182 of file OpenGL\_Utils.c.

The documentation for this struct was generated from the following file:

- src/lib/opengl/OpenGL\_Utils.c

## 4.761 pPluginSocket Struct Reference

### Data Fields

- pthread\_mutex\_t **mylocker**
- fd\_set **rfd**s
- struct timeval **tv**
- char **return\_url** [FILENAME\_MAX]

### 4.761.1 Detailed Description

Definition at line 62 of file PluginSocket.c.

The documentation for this struct was generated from the following file:

- src/lib/plugin/PluginSocket.c

## 4.762 ppluginUtils Struct Reference

### Data Fields

- int **waitingForURLtoLoad**
- **resource\_item\_t** \* **plugin\_res**

### 4.762.1 Detailed Description

Definition at line 70 of file pluginUtils.c.

The documentation for this struct was generated from the following file:

- src/lib/plugin/pluginUtils.c

## 4.763 pProdCon Struct Reference

### Data Fields

- struct **Vector** \* **viewpointNodes**
- struct **Vector** \* **fogNodes**
- struct **Vector** \* **backgroundNodes**
- struct **Vector** \* **navigationNodes**
- int **\_P\_LOCK\_VAR**
- **s\_list\_t** \* **resource\_list\_to\_parse**
- **s\_list\_t** \* **frontend\_list\_to\_get**
- int **frontend\_gets\_files**
- struct **PSStruct** **psp**
- int **inputThreadParsing**
- int **haveParsedCParsed**
- int **frontend\_res\_count**

### 4.763.1 Detailed Description

Definition at line 121 of file ProdCon.c.

The documentation for this struct was generated from the following file:

- src/lib/main/ProdCon.c

## 4.764 PQhandleElem Struct Reference

### Data Fields

- PQkey **key**
- PQhandle **node**

### 4.764.1 Detailed Description

Definition at line 84 of file priorityq-heap.h.

The documentation for this struct was generated from the following file:

- src/libtess/priorityq-heap.h

## 4.765 PQnode Struct Reference

### Data Fields

- PQhandle **handle**

### 4.765.1 Detailed Description

Definition at line 83 of file priorityq-heap.h.

The documentation for this struct was generated from the following file:

- src/libtess/priorityq-heap.h

## 4.766 pRasterFont Struct Reference

### Data Fields

- struct **X3D\_Text** myText
- struct **X3D\_FontStyle** myFont
- bool **rf\_initialized**
- int **xf\_color**
- vec4f\_t **xf\_colors** [3]

### 4.766.1 Detailed Description

Definition at line 57 of file RasterFont.c.

The documentation for this struct was generated from the following file:

- src/lib/OpenGL/RasterFont.c

## 4.767 pRenderFuncs Struct Reference

### Data Fields

- int **profile\_entry\_count**
- struct **profile\_entry** **profile\_entries** [100]
- int **profiling\_on**
- float **light\_linAtten** [MAX\_LIGHT\_STACK]
- float **light\_constAtten** [MAX\_LIGHT\_STACK]
- float **light\_quadAtten** [MAX\_LIGHT\_STACK]
- float **light\_spotCutoffAngle** [MAX\_LIGHT\_STACK]
- float **light\_spotBeamWidth** [MAX\_LIGHT\_STACK]
- shaderVec4 **light\_amb** [MAX\_LIGHT\_STACK]
- shaderVec4 **light\_dif** [MAX\_LIGHT\_STACK]
- shaderVec4 **light\_pos** [MAX\_LIGHT\_STACK]
- shaderVec4 **light\_spec** [MAX\_LIGHT\_STACK]
- shaderVec4 **light\_spotDir** [MAX\_LIGHT\_STACK]
- float **light\_radius** [MAX\_LIGHT\_STACK]
- GLint **lightType** [MAX\_LIGHT\_STACK]
- int **nextFreeLight**
- int **refreshLightUniforms**
- unsigned int **currentLoop**
- unsigned int **lastLoop**
- unsigned int **sendCount**
- GLint **lightOnOff** [MAX\_LIGHT\_STACK]
- GLint **lightChanged** [MAX\_LIGHT\_STACK]
- GLint **lastShader**
- void \* **empty\_group**
- struct **point\_XYZ** **hyper\_r1** **hyper\_r2**
- struct **currayhit** **rayph**
- struct **X3D\_Node** \* **rootNode**
- struct **Vector** \* **libraries**
- struct **X3D\_Anchor** \* **AnchorsAnchor**
- struct **currayhit** **rayHit**
- struct **trenderstate** **renderstate**
- int **renderLevel**
- GLint **currentShader**
- **Stack** \* **render\_geom\_stack**
- **Stack** \* **sensor\_stack**
- **Stack** \* **ray\_stack**
- **Stack** \* **shaderflags\_stack**
- **Stack** \* **fog\_stack**
- **Stack** \* **localLight\_stack**
- struct **point\_XYZ3** **t\_r123**
- struct **point\_XYZ** **hp**
- **Stack** \* **usehits\_stack**
- **Stack** \* **usehitsB\_stack**
- **Stack** \* **pickablegroupdata\_stack**
- **Stack** \* **draw\_call\_params\_stack**



### 4.767.1 Detailed Description

Definition at line 88 of file RenderFuncs.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/RenderFuncs.c

## 4.768 pRenderTextures Struct Reference

### Data Fields

- struct **multiTexParams** **textureParameterStack** [MAX\_MULTITEXTURE]

### 4.768.1 Detailed Description

Definition at line 55 of file RenderTextures.c.

The documentation for this struct was generated from the following file:

- src/lib/opengl/RenderTextures.c

## 4.769 presources Struct Reference

### Data Fields

- struct **Vector** \* **resStack**
- **resource\_item\_t** \* **lastBaseResource**

### 4.769.1 Detailed Description

Definition at line 57 of file resources.c.

The documentation for this struct was generated from the following file:

- src/lib/resources.c

## 4.770 primStream Class Reference

### Public Member Functions

- **primStream** (Int sizeLengths, Int sizeVertices)
- Int **get\_n\_prims** ()
- Int **get\_type** (Int i)
- Int **get\_length** (Int i)
- Real \* **get\_vertices** ()
- void **begin** ()
- void **insert** (Real u, Real v)
- void **insert** (Real v[2])
- void **end** (Int type)
- Int **num\_triangles** ()
- void **triangle** (Real A[2], Real B[2], Real C[2])
- void **print** ()
- void **draw** ()

### 4.770.1 Detailed Description

Definition at line 44 of file primitiveStream.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/primitiveStream.h
- src/libnurbs/nurbtess/primitiveStream.cc

## 4.771 PriorityQ Struct Reference

### Data Fields

- **PQnode** \* **nodes**
- **PQhandleElem** \* **handles**
- long **size**
- long **max**
- PQhandle **freeList**
- int **initialized**
- int(\* **leq** )(PQkey key1, PQkey key2)
- PriorityQHeap \* **heap**
- PQkey \* **keys**
- PQkey \*\* **order**
- PQhandle **size**
- PQhandle **max**

### 4.771.1 Detailed Description

Definition at line 86 of file priorityq-heap.h.

The documentation for this struct was generated from the following files:

- src/libtess/priorityq-heap.h
- src/libtess/priorityq-sort.h
- src/libtess/priorityq.h

## 4.772 profile\_entry Struct Reference

### Data Fields

- char \* **name**
- double **start**
- double **accum**
- int **hits**

### 4.772.1 Detailed Description

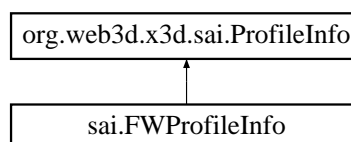
Definition at line 58 of file RenderFuncs.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/RenderFuncs.c

## 4.773 org.web3d.x3d.sai.ProfileInfo Interface Reference

Inheritance diagram for org.web3d.x3d.sai.ProfileInfo:



### Public Member Functions

- String **getName** ()
- String **getTitle** ()
- **ComponentInfo**[] **getComponents** ()
- String **toX3DString** ()

### 4.773.1 Detailed Description

Definition at line 3 of file ProfileInfo.java.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/ProfileInfo.java`

## 4.774 proftablestruct Struct Reference

### Data Fields

- int **profileName**
- const int \* **profileTable**
- int **level**

### 4.774.1 Detailed Description

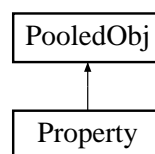
Definition at line 236 of file capabilitiesHandler.c.

The documentation for this struct was generated from the following file:

- `src/lib/x3d_parser/capabilitiesHandler.c`

## 4.775 Property Struct Reference

Inheritance diagram for Property:



### Public Member Functions

- **Property** (long \_type, long \_tag, INREAL \_value)
- **Property** (long \_tag, INREAL \_value)

### Data Fields

- long **type**
- long **tag**
- REAL **value**
- int **save**

### 4.775.1 Detailed Description

Definition at line 120 of file reader.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h

## 4.776 PropulsionSystemData Struct Reference

### Data Fields

- float **powerSetting**  
*powerSetting*
- float **engineRpm**  
*engine RPMs*

### 4.776.1 Detailed Description

Definition at line 650 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.777 ProtoDefinition Struct Reference

### Data Fields

- indexT **protoDefNumber**
- struct **Vector** \* **iface**
- struct **Vector** \* **deconstructedProtoBody**
- int **estimatedBodyLen**
- char \* **protoName**
- int **isCopy**
- int **isExtern**

### 4.777.1 Detailed Description

Definition at line 92 of file CParseParser.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.h

## 4.778 ProtoFieldDecl Struct Reference

### Data Fields

- `indexT mode`
- `indexT type`
- `indexT name`
- `char * cname`
- `char * fieldString`
- `BOOL alreadySet`
- `union anyVrml defaultVal`
- `struct Vector * scriptDests`

### 4.778.1 Detailed Description

Definition at line 38 of file CParseParser.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/CParseParser.h`

## 4.779 pSensInterps Struct Reference

### Data Fields

- `int stub`

### 4.779.1 Detailed Description

Definition at line 64 of file SensInterps.c.

The documentation for this struct was generated from the following file:

- `src/lib/input/SensInterps.c`

## 4.780 pSnapshot Struct Reference

### Data Fields

- `int snapRawCount`
- `int snapGoodCount`
- `int snapGif`
- `char * snapsnapB`
- `const char * default_seqtmp`
- `char * seqtmp`
- `int doSnapshot`
- `int doPrintshot`
- `int savedSnapshot`
- `int modeTesting`

### 4.780.1 Detailed Description

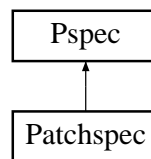
Definition at line 58 of file Snapshot.c.

The documentation for this struct was generated from the following file:

- src/lib/main/Snapshot.c

## 4.781 Pspec Struct Reference

Inheritance diagram for Pspec:



### Data Fields

- REAL **range** [3]
- REAL **sidestep** [2]
- REAL **stepsize**
- REAL **minstepsize**
- int **needsSubdivision**

### 4.781.1 Detailed Description

Definition at line 46 of file patch.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/patch.h

## 4.782 PSStruct Struct Reference

### Data Fields

- unsigned **type**
- char \* **inp**
- void \* **ptr**
- unsigned **ofs**
- int **zeroBind**
- int **bind**
- char \* **path**
- int \* **comp**
- char \* **fieldname**
- int **jparamcount**
- struct **Uni\_String** \* **sv**

### 4.782.1 Detailed Description

Definition at line 103 of file ProdCon.c.

The documentation for this struct was generated from the following file:

- src/lib/main/ProdCon.c

## 4.783 pstatusbar Struct Reference

### Data Fields

- int **initDone**
- int **screenWidth**
- int **screenHeight**
- double **screenRatio**

### 4.783.1 Detailed Description

Definition at line 65 of file statusBar.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/statusbar.c

## 4.784 pStreamPoly Struct Reference

### Data Fields

- int **Sindex**
- int **Tindex**
- GLfloat **minVals** [3]
- GLfloat **Ssize**

### 4.784.1 Detailed Description

Definition at line 83 of file StreamPoly.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/StreamPoly.c



## 4.785 pTess Struct Reference

### Data Fields

- int **global\_IFS\_Coords** [TESS\_MAX\_COORDS]

### 4.785.1 Detailed Description

Definition at line 68 of file Tess.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Tess.c

## 4.786 pTextures Struct Reference

### Data Fields

- struct **Vector** \* **activeTextureTable**
- **textureTableIndexStruct\_s** \* **loadThisTexture**
- int **currentlyWorkingOn**
- int **textureInProcess**

### 4.786.1 Detailed Description

Definition at line 96 of file Textures.c.

The documentation for this struct was generated from the following file:

- src/lib/opengl/Textures.c

## 4.787 pViewer Struct Reference

### Data Fields

- int **examineCounter**
- int **viewer\_initialized**
- **X3D\_Viewer\_Walk** viewer\_walk
- **X3D\_Viewer\_Examine** viewer\_examine
- **X3D\_Viewer\_Fly** viewer\_fly
- **X3D\_Viewer\_Spherical** viewer\_ypz
- FILE \* **exfly\_in\_file**
- struct **point\_XYZ** viewer\_lastP
- int **exflyMethod**
- int **StereoInitializedOnce**
- GLboolean **acMask** [3][3]
- double **old2new** [16]
- double **identity** [16]
- double **tickFrac**
- **Quaternion** sq
- double **sp** [3]
- int **keychord**
- int **dragchord**

### 4.787.1 Detailed Description

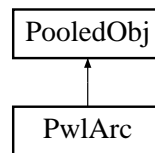
Definition at line 80 of file Viewer.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.c

## 4.788 PwlArc Class Reference

Inheritance diagram for PwlArc:



### Public Member Functions

- **PwlArc** (int, **TrimVertex** \*)
- **PwlArc** (int, **TrimVertex** \*, long)

### Data Fields

- **TrimVertex** \* **pts**
- int **npts**
- long **type**

### 4.788.1 Detailed Description

Definition at line 44 of file pwlarc.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/pwlarc.h

## 4.789 pX3DParser Struct Reference

### Data Fields

- struct **VRMLLexer** \* **myLexer**
- **Stack** \* **DEFedNodes**
- int **CDATA\_TextMallocSize**
- int **in3\_3\_fieldValue**
- int **in3\_3\_fieldIndex**
- int **X3DParserRecurseLevel**
- XML\_Parser **x3dparser** [PROTOINSTANCE\_MAX\_LEVELS]
- XML\_Parser **currentX3DParser**
- int **currentParserMode** [PROTOINSTANCE\_MAX\_LEVELS]
- int **currentParserModelIndex**
- struct **xml\_user\_data** \* **user\_data**

### 4.789.1 Detailed Description

Definition at line 259 of file X3DParser.c.

The documentation for this struct was generated from the following file:

- src/lib/x3d\_parser/X3DParser.c

## 4.790 quaternion Struct Reference

### Data Fields

- double **w**
- double **x**
- double **y**
- double **z**

### 4.790.1 Detailed Description

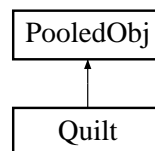
Definition at line 70 of file quaternion.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/quaternion.h

## 4.791 Quilt Class Reference

Inheritance diagram for Quilt:



### Public Member Functions

- **Quilt** ( **Mapdesc** \*)
- void **deleteMe** ( **Pool** &)
- void **toBezier** ( **Knotvector** &, INREAL \*, long)
- void **toBezier** ( **Knotvector** &, **Knotvector** &, INREAL \*, long)
- void **select** (REAL \*, REAL \*)
- int **getDimension** (void)
- void **download** ( **Backend** &)
- void **downloadAll** (REAL \*, REAL \*, **Backend** &)
- int **isCulled** (void)
- void **getRange** (REAL \*, REAL \*, **Flist** &, **Flist** &)
- void **getRange** (REAL \*, REAL \*, int, **Flist** &)
- void **getRange** (REAL \*, REAL \*, **Flist** &)
- void **findRates** ( **Flist** &slist, **Flist** &tlist, REAL[2])
- void **findSampleRates** ( **Flist** &slist, **Flist** &tlist)
- void **show** ()

## Data Fields

- **Mapdesc** \* **mapdesc**
- REAL \* **cpts**
- **Quiltspec** **qspec** [MAXDIM]
- **Quiltspec\_ptr** **eqspec**
- **Quilt** \* **next**

### 4.791.1 Detailed Description

Definition at line 64 of file quilt.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/quilt.h
- src/libnurbs/internals/quilt.cc
- src/libnurbs/internals/tobezier.cc

## 4.792 Quiltspec Struct Reference

### Data Fields

- int **stride**
- int **width**
- int **offset**
- int **order**
- int **index**
- int **bdry** [2]
- REAL **step\_size**
- Knot \* **breakpoints**

### 4.792.1 Detailed Description

Definition at line 51 of file quilt.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/quilt.h

## 4.793 RadioCommunicationsFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** **myPdu**
- struct **EntityID** **entityId**  
*ID of the entity that is the source of the communication.*
- unsigned short **radioId**  
*particular radio within an entity*

### 4.793.1 Detailed Description

Definition at line 876 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.794 RadioEntityType Struct Reference

### Data Fields

- unsigned char **entityKind**  
*Kind of entity.*
- unsigned char **domain**  
*Domain of entity (air, surface, subsurface, space, etc)*
- unsigned short **country**  
*country to which the design of the entity is attributed*
- unsigned char **category**  
*category of entity*
- unsigned char **nomenclatureVersion**  
*specific info based on subcategory field*
- unsigned short **nomenclature**

### 4.794.1 Detailed Description

Definition at line 168 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.795 rb1 Struct Reference

### Data Fields

- int **head**
- int **tail**
- int **noOfElements**
- void \* **data**

### 4.795.1 Detailed Description

Definition at line 8 of file ringbuf.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/ringbuf.h

## 4.796 ReceiverPdu Struct Reference

### Data Fields

- struct **RadioCommunicationsFamilyPdu** **myRadioCommunicationsFamilyPdu**
- unsigned short **receiverState**  
*encoding scheme used, and enumeration*
- unsigned short **padding1**  
*padding*
- float **receivedPoser**  
*received power*
- struct **EntityID** **transmitterEntityId**  
*ID of transmitter.*
- unsigned short **transmitterRadioid**  
*ID of transmitting radio.*

### 4.796.1 Detailed Description

Definition at line 1854 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.797 RecordQueryReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliability**↔  
**FamilyPdu**
- unsigned int **requestID**  
*request ID*
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding.*
- unsigned char **pad2**  
*padding*
- unsigned short **eventType**  
*event type*
- unsigned int **time**  
*time*
- unsigned int **numberOfRecords**  
*numberOfRecords*
- void \* **recordIDs**  
*record IDs*

### 4.797.1 Detailed Description

Definition at line 1777 of file DIS.h.

### 4.797.2 Field Documentation

#### 4.797.2.1 pad1

```
unsigned short RecordQueryReliablePdu::pad1
```

padding.

The spec is unclear and contradictory here.

Definition at line 1784 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.798 RecordSet Struct Reference

### Data Fields

- unsigned int **recordID**  
*record ID*
- unsigned int **recordSetSerialNumber**  
*record set serial number*
- unsigned short **recordLength**  
*record length*
- unsigned short **recordCount**  
*record count*
- unsigned short **recordValues**  
^^^ *This is wrong—variable sized data records*
- unsigned char **pad4**  
^^^ *This is wrong—variable sized padding*

### 4.798.1 Detailed Description

Definition at line 421 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.799 rectBlock Class Reference

### Public Member Functions

- **rectBlock** ( **gridBoundaryChain** \*left, **gridBoundaryChain** \*right, Int beginVline, Int endVline)
- Int **get\_upGridLineIndex** ()
- Int **get\_lowGridLineIndex** ()
- Int \* **get\_leftIndices** ()
- Int \* **get\_rightIndices** ()
- Int **num\_quads** ()
- void **print** ()
- void **draw** (Real \*u\_values, Real \*v\_values)

### 4.799.1 Detailed Description

Definition at line 39 of file rectBlock.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/rectBlock.h
- src/libnurbs/nurbtess/rectBlock.cc

## 4.800 rectBlockArray Class Reference

### Public Member Functions

- **rectBlockArray** (Int s)
- Int **get\_n\_elements** ()
- **rectBlock** \* **get\_element** (Int i)
- void **insert** ( **rectBlock** \*newBlock)
- Int **num\_quads** ()
- void **print** ()
- void **draw** (Real \*u\_values, Real \*v\_values)

### 4.800.1 Detailed Description

Definition at line 61 of file rectBlock.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/rectBlock.h
- src/libnurbs/nurbtess/rectBlock.cc



## 4.801 reflexChain Class Reference

### Public Member Functions

- **reflexChain** (Int size, Int isIncreasing)
- void **insert** (Real u, Real v)
- void **insert** (Real v[2])
- void **processNewVertex** (Real v[2], **primStream** \*pStream)
- void **outputFan** (Real v[2], **primStream** \*pStream)
- void **processNewVertex** (Real v[2], **Backend** \*backend)
- void **outputFan** (Real v[2], **Backend** \*backend)
- void **print** ()

### 4.801.1 Detailed Description

Definition at line 43 of file monoTriangulation.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/monoTriangulation.h
- src/libnurbs/internals/monoTriangulationBackend.cc
- src/libnurbs/nurbtess/monoTriangulation.cc

## 4.802 Relationship Struct Reference

### Data Fields

- unsigned short **nature**  
*Nature of join.*
- unsigned short **position**  
*position of join*

### 4.802.1 Detailed Description

Definition at line 320 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.803 RemoveEntityPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** mySimulationManagementFamilyPdu
- unsigned int **requestID**  
*Identifier for the request.*

### 4.803.1 Detailed Description

Definition at line 971 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.804 RemoveEntityReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** mySimulationManagementWithReliability↔  
**FamilyPdu**
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **requestID**  
*Request ID.*

### 4.804.1 Detailed Description

Definition at line 1943 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.805 Renderhints Class Reference

### Public Member Functions

- void **init** (void)
- int **isProperty** (long)
- REAL **getProperty** (long)
- void **setProperty** (long, REAL)

### Data Fields

- REAL **display\_method**
- REAL **errorchecking**
- REAL **subdivisions**
- REAL **tmp1**
- int **displaydomain**
- int **maxsubdivisions**
- int **wiretris**
- int **wirequads**

### 4.805.1 Detailed Description

Definition at line 41 of file renderhints.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/renderhints.h
- src/libnurbs/internals/renderhints.cc

## 4.806 RepairCompletePdu Struct Reference

### Data Fields

- struct **LogisticsFamilyPdu** myLogisticsFamilyPdu
- struct **EntityID** receivingEntityID  
*Entity that is receiving service.*
- struct **EntityID** repairingEntityID  
*Entity that is supplying.*
- unsigned short **repair**  
*Enumeration for type of repair.*
- short **padding2**  
*padding, number prevents conflict with superclass ivar name*

### 4.806.1 Detailed Description

Definition at line 721 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.807 RepairResponsePdu Struct Reference

### Data Fields

- struct **LogisticsFamilyPdu** myLogisticsFamilyPdu
- struct **EntityID** receivingEntityID  
*Entity that is receiving service.*
- struct **EntityID** repairingEntityID  
*Entity that is supplying.*
- unsigned char **repairResult**  
*Result of repair operation.*
- short **padding1**  
*padding*
- char **padding2**  
*padding*

### 4.807.1 Detailed Description

Definition at line 783 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.808 resource\_item Struct Reference

### Data Fields

- struct **resource\_item** \* **parent**
- **s\_list\_t** \* **children**
- bool **network**
- bool **new\_root**
- resource\_type\_t **type**
- resource\_status\_t **status**
- resource\_actions\_t **actions**
- bool **complete**
- void \* **ectx**
- void \* **whereToPlaceData**
- int **offsetFromWhereToPlaceData**
- int **textureNumber**
- **s\_list\_t** \* **m\_request**
- char \* **URLrequest**
- char \* **URLbase**
- char \* **temp\_dir**
- char \* **afterPoundCharacters**
- char \* **parsed\_request**
- char \* **actual\_file**
- void \* **cached\_files**
- void \* **opened\_files**
- char **four\_first\_bytes** [4]
- resource\_media\_type\_t **media\_type**
- int **treat\_as\_root**
- pthread\_t \* **\_loadThread**
- void \* **tg**
- int(\* **\_loadFunc** )(void \*)

### 4.808.1 Detailed Description

Definition at line 99 of file resources.h.

The documentation for this struct was generated from the following file:

- src/lib/resources.h

## 4.809 ResupplyCancelPdu Struct Reference

### Data Fields

- struct **LogisticsFamilyPdu** **myLogisticsFamilyPdu**
- struct **EntityID** **receivingEntityID**  
*Entity that is receiving service.*
- struct **EntityID** **supplyingEntityID**  
*Entity that is supplying.*

### 4.809.1 Detailed Description

Definition at line 1205 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.810 ResupplyOfferPdu Struct Reference

### Data Fields

- struct **LogisticsFamilyPdu** **myLogisticsFamilyPdu**
- struct **EntityID** **receivingEntityID**  
*Entity that is receiving service.*
- struct **EntityID** **supplyingEntityID**  
*Entity that is supplying.*
- unsigned char **numberOfSupplyTypes**  
*how many supplies are being offered*
- short **padding1**  
*padding*
- char **padding2**  
*padding*
- void \* **supplies**

### 4.810.1 Detailed Description

Definition at line 1300 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.811 ResupplyReceivedPdu Struct Reference

### Data Fields

- struct **LogisticsFamilyPdu** **myLogisticsFamilyPdu**
- struct **EntityID** **receivingEntityID**  
*Entity that is receiving service.*
- struct **EntityID** **supplyingEntityID**  
*Entity that is supplying.*
- unsigned char **numberOfSupplyTypes**  
*how many supplies are being offered*
- short **padding1**  
*padding*
- char **padding2**  
*padding*
- void \* **supplies**

### 4.811.1 Detailed Description

Definition at line 978 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.812 row32 Struct Reference

### Data Fields

- int **allocn**
- int **len32**
- unsigned int \* **str32**
- int **glyphstartindex**
- double **hrowsize**
- double **vcolsize**
- double **widestchar**
- **chardata** \* **chr**

### 4.812.1 Detailed Description

Definition at line 211 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.813 s\_renderer\_capabilities\_t Struct Reference

### Data Fields

- const char \* **renderer**
- const char \* **version**
- const char \* **vendor**
- const char \* **extensions**
- float **versionf**
- bool **have\_GL\_VERSION\_1\_1**
- bool **have\_GL\_VERSION\_1\_2**
- bool **have\_GL\_VERSION\_1\_3**
- bool **have\_GL\_VERSION\_1\_4**
- bool **have\_GL\_VERSION\_1\_5**
- bool **have\_GL\_VERSION\_2\_0**
- bool **have\_GL\_VERSION\_2\_1**
- bool **have\_GL\_VERSION\_3\_0**
- bool **av\_multitexture**
- bool **av\_npot\_texture**
- bool **av\_texture\_rect**
- bool **av\_occlusion\_q**
- int **texture\_units**
- int **runtime\_max\_texture\_size**
- int **system\_max\_texture\_size**
- float **anisotropicDegree**
- GLboolean **quadBuffer**

### 4.813.1 Detailed Description

Definition at line 441 of file display.h.

The documentation for this struct was generated from the following file:

- src/lib/display.h

## 4.814 s\_shader\_capabilities Struct Reference

### Data Fields

- GLint **compiledOK**
- GLuint **myShaderProgram**
- GLint **myMaterialAmbient**
- GLint **myMaterialDiffuse**
- GLint **myMaterialSpecular**
- GLint **myMaterialShininess**
- GLint **myMaterialEmission**
- GLint **myMaterialBackAmbient**
- GLint **myMaterialBackDiffuse**
- GLint **myMaterialBackSpecular**
- GLint **myMaterialBackShininess**

- GLint **myMaterialBackEmission**
- GLint **myPointSize**
- bool **haveLightInShader**
- GLint **lightcount**
- GLint **lightType** [MAX\_LIGHTS]
- GLint **lightAmbient** [MAX\_LIGHTS]
- GLint **lightDiffuse** [MAX\_LIGHTS]
- GLint **lightSpecular** [MAX\_LIGHTS]
- GLint **lightPosition** [MAX\_LIGHTS]
- GLint **lightSpotDir** [MAX\_LIGHTS]
- GLint **lightAtten** [MAX\_LIGHTS]
- GLint **lightSpotCutoffAngle** [MAX\_LIGHTS]
- GLint **lightSpotBeamWidth** [MAX\_LIGHTS]
- GLint **lightRadius** [MAX\_LIGHTS]
- GLint **ModelViewMatrix**
- GLint **ProjectionMatrix**
- GLint **NormalMatrix**
- GLint **ModelViewInverseMatrix**
- GLint **TextureMatrix** [MAX\_MULTITEXTURE]
- GLint **Vertices**
- GLint **Normals**
- GLint **Colours**
- GLint **TexCoords** [MAX\_MULTITEXTURE]
- GLint **FogCoords**
- GLint **TextureUnit** [MAX\_MULTITEXTURE]
- GLint **TextureMode** [MAX\_MULTITEXTURE]
- GLint **TextureSource** [MAX\_MULTITEXTURE]
- GLint **TextureFunction** [MAX\_MULTITEXTURE]
- GLint **textureCount**
- GLint **multitextureColor**
- GLint **tex3dTiles**
- GLint **tex3dUseVertex**
- GLint **repeatSTR**
- GLint **magFilter**
- GLint **hatchColour**
- GLint **hatchPercent**
- GLint **hatchScale**
- GLint **filledBool**
- GLint **hatchedBool**
- GLint **algorithm**
- GLint **texCoordGenType**
- GLint **fogColor**
- GLint **fogvisibilityRange**
- GLint **fogScale**
- GLint **fogType**
- GLint **fogHaveCoords**
- GLint **clipplanes**
- GLint **nclipplanes**

#### 4.814.1 Detailed Description

Definition at line 344 of file display.h.

The documentation for this struct was generated from the following file:

- src/lib/display.h



## 4.815 freeWRLSAI\_cpp::saiBrowser Class Reference

### Public Member Functions

- virtual **saiBrowser** \* **getBrowser** (const SAIParameter \*pParams)=0
- virtual **saiBrowser** \* **createBrowser** (const SAIParameter \*pParams, std::map< std::string, std::string > \*pProperties)=0
- virtual const char \* **getName** ()=0
- virtual const char \* **getVersion** ()=0
- virtual float **getCurrentSpeed** ()=0
- virtual float **getCurrentFrameRate** ()=0
- virtual void **replaceWorld** (const char \*sceneURI)=0
- virtual void **loadURL** (const char \*sceneURL)=0
- virtual void **setDescription** (const char \*strDescription)=0
- virtual **saiScene** \* **createX3DFromString** (const char \*strX3DSource)=0
- virtual void **updateControl** (unsigned int nAction)=0
- virtual void **registerBrowserInterest** (unsigned int nAction, **saiBrowser** \*pRequester)=0
- virtual std::map< std::string, std::string > \* **getRenderingProperties** ()=0
- virtual std::map< std::string, std::string > \* **getBrowserProperties** ()=0
- virtual void **changeViewpoint** (unsigned int nAction)=0
- virtual void **print** ()=0
- virtual void **dispose** ()=0
- virtual bool **setBrowserOption** (const char \*strOptionName, void \*pOptionValue)=0
- virtual const std::vector< **saiProfileDeclaration** \* > \* **getSupportedProfiles** ()=0
- virtual const **saiProfileDeclaration** \* **getProfile** (const char \*strProfileName)=0
- virtual const std::map< std::string, **saiComponent** \* > \* **getSupportedComponents** ()=0
- virtual const **saiComponent** \* **getComponent** (const char \*strComponentName)=0
- virtual const **saiExecutionContext** \* **getExecutionContext** ()=0
- virtual **saiExecutionContext** \* **createScene** ()=0
- virtual **saiExecutionContext** \* **importDocument** (const char \*DOMdocURI)=0
- virtual **saiExecutionContext** \* **createX3DFromStream** (void \*pStreambuf)=0
- virtual **saiExecutionContext** \* **createX3DFromUrl** (const char \*srcURL)=0

### 4.815.1 Detailed Description

Definition at line 49 of file SAIBrowser.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIBrowser.h

## 4.816 freeWRLSAI\_cpp::saiComponent Class Reference

### Public Member Functions

- virtual const char \* **getComponentName** ()=0

### 4.816.1 Detailed Description

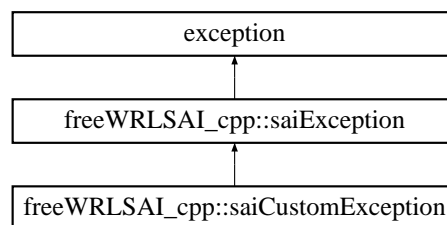
Definition at line 64 of file SAIGlobals.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIGlobals.h

## 4.817 freeWRLSAI\_cpp::saiCustomException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::saiCustomException:



### Public Member Functions

- **saiCustomException** (const char \*strWhat, const char \*strFile, int strLine, const char \*strFunc)
- virtual const char \* **what** ()

### Data Fields

- std::string **m\_strWhat**

### Additional Inherited Members

### 4.817.1 Detailed Description

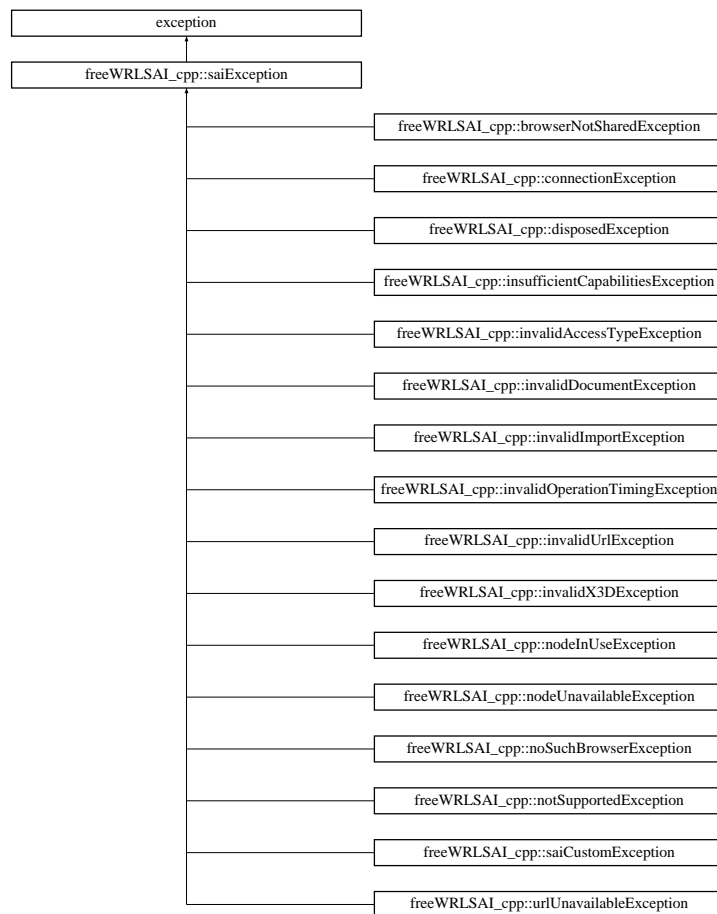
Definition at line 310 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.818 freeWRLSAI\_cpp::saiException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::saiException:



### Public Member Functions

- virtual const char \* **what** ()
- virtual int **GetError** ()

### Protected Attributes

- int **m\_nErrorCode**

### 4.818.1 Detailed Description

Definition at line 56 of file SAlexception.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAlexception.h

## 4.819 freeWRLSAI\_cpp::saiExecutionContext Class Reference

### Public Types

- enum **saiContextType** { **saiGenericContext** = 0, **saiSceneContext**, **saiUndefinedContext** }

### Public Member Functions

- virtual saiContextType **getContextType** ()=0
- virtual const char \* **getSpecificationVersion** ()=0
- virtual int **getEncoding** ()=0
- virtual const char \* **getWorldURL** ()=0
- virtual **saiNode** \* **getNode** (const char \*strNodeName, int nAction)=0
- virtual **saiNode** \* **createNode** (const char \*strNodeType)=0
- virtual **saiNode** \* **createProto** (const char \*strProtoName)=0
- virtual saiProtoDeclaration \* **getProtoDeclaration** (const char \*strProtoName)=0
- virtual void **protoDeclarationHandling** (const char \*strProtoName, **saiNode** \*pNode, int nAction)=0
- virtual saiProtoDeclaration \* **getExternProtoDeclaration** (const char \*strProtoName)=0
- virtual void **externProtoDeclarationHandling** (const char \*strProtoName, **saiNode** \*pNode, int nAction)=0
- virtual std::vector< **saiNode** \* > \* **getRootNodes** ()=0
- virtual std::vector< **saiRoute** \* > \* **getRoutes** ()=0
- virtual void **dispose** ()=0
- virtual **saiProfileDeclaration** \* **getProfile** ()=0
- virtual std::map< std::string, **saiComponent** \* > \* **getComponents** ()=0

### 4.819.1 Detailed Description

Definition at line 45 of file SAExecutionContext.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAExecutionContext.h

## 4.820 freeWRLSAI\_cpp::saiField Class Reference

### Public Types

- enum **saiFieldAccess** { **initializeOnly** = 0, **inputOnly**, **outputOnly**, **inputOutput** }

### Public Member Functions

- virtual saiFieldAccess **getAccessType** ()=0
- virtual int **getType** ()=0
- virtual const char \* **getName** ()=0
- virtual void **dispose** ()=0
- virtual const saiFieldValuePtr **getValue** ()=0
- virtual void **setValue** (const saiFieldValuePtr pValue)=0

### 4.820.1 Detailed Description

Definition at line 52 of file SAIField.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIField.h

## 4.821 freeWRLSAI\_cpp::saiNode Class Reference

### Public Member Functions

- virtual const char \* **getTypeName** ()=0
- virtual const char \* **getType** ()=0
- virtual **saiField** \* **getField** (const char \*strFieldName)=0
- virtual std::vector< **saiField** \* > \* **getFieldDefinitions** (const char \*strNodeType)=0
- virtual void **dispose** ()=0

### 4.821.1 Detailed Description

Definition at line 48 of file SAINode.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAINode.h

## 4.822 freeWRLSAI\_cpp::saiProfileDeclaration Class Reference

### Public Member Functions

- virtual const char \* **getProfileName** ()=0
- virtual std::map< std::string, **saiComponent** \* > **getComponentDeclaration** ()=0

### 4.822.1 Detailed Description

Definition at line 72 of file SAIGlobals.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIGlobals.h

## 4.823 freeWRLSAI\_cpp::saiProto Class Reference

### Public Types

- enum **saiLoadState** { **NOT\_STARTED** = 0, **IN\_PROGRESS**, **COMPLETE**, **FAILED** }

## Public Member Functions

- virtual bool **isExternproto** ()=0
- virtual **saiNode** \* **createInstance** (const char \*strProtoDeclaration)=0
- virtual std::vector< **saiField** \* > \* **getFieldDefinitions** ()=0
- virtual saiLoadState **checkLoadState** ()=0
- virtual void **requestImmediateLoad** ()=0

### 4.823.1 Detailed Description

Definition at line 49 of file SAProto.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAProto.h

## 4.824 freeWRLSAI\_cpp::saiRoute Class Reference

## Public Member Functions

- virtual const **saiNode** \* **getSourceNode** ()=0
- virtual const **saiField** \* **getSourceField** ()=0
- virtual const **saiNode** \* **getDestinationNode** ()=0
- virtual const **saiField** \* **getDestinationField** ()=0
- virtual void **dispose** ()=0

### 4.824.1 Detailed Description

Definition at line 49 of file SAIroute.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIroute.h

## 4.825 freeWRLSAI\_cpp::saiScene Class Reference

## Public Member Functions

- virtual const char \* **getMetaData** (const char \*strKey)=0
- virtual void **setMetaData** (const char \*strKey, const char \*strMetadata)=0
- virtual void **rootNodeHandling** (const **saiNode** \*pTargetNode, int nAction)=0
- virtual void **AddRootNode** (const **saiNode** \*pNodeToAdd)=0
- virtual void **RemoveRootNode** (const **saiNode** \*pNodeToRemove)=0

### 4.825.1 Detailed Description

Definition at line 55 of file SAIScene.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAIScene.h

## 4.826 sampledLine Class Reference

### Public Member Functions

- **sampledLine** (Int n\_points)
- **sampledLine** (Int n\_points, Real pts[ ][2])
- **sampledLine** (Real pt1[2], Real pt2[2])
- void **init** (Int n\_points, Real2 \*pts)
- void **setPoint** (Int i, Real p[2])
- **sampledLine** \* **insert** ( **sampledLine** \*nline)
- void **deleteList** ()
- Int **get\_npoints** ()
- Real2 \* **get\_points** ()
- void **tessellate** (Real u\_reso, Real v\_reso)
- void **tessellateAll** (Real u\_reso, Real v\_reso)
- void **print** ()

### Data Fields

- **sampledLine** \* **next**

### 4.826.1 Detailed Description

Definition at line 38 of file sampledLine.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/sampledLine.h
- src/libnurbs/nurbtess/sampledLine.cc

## 4.827 sCollisionGeometry Struct Reference

### Data Fields

- struct **point\_XYZ** \* **pts**
- struct **point\_XYZ** \* **tpts**
- ctri \* **tris**
- int **ntris**
- cquad \* **quads**
- int **nquads**
- int **npts**
- double **smin** [3]
- double **smax** [3]

### 4.827.1 Detailed Description

Definition at line 64 of file Component\_Geometry3D.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geometry3D.c

## 4.828 sCollisionInfo Struct Reference

### Data Fields

- struct **point\_XYZ** **Offset**
- int **Count**
- double **Maximum2**

### 4.828.1 Detailed Description

Definition at line 50 of file Collision.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Collision.h

## 4.829 screentextdata Struct Reference

### Data Fields

- int **nalloc**
- int **nrow**
- **row32** \* **rowvec**
- void \* **atlasfont**
- float **size**
- float **faceheight**
- float **emsize**

### 4.829.1 Detailed Description

Definition at line 223 of file Component\_Text.c.

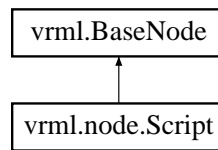
The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c



## 4.830 vrml.node.Script Class Reference

Inheritance diagram for vrml.node.Script:



### Public Member Functions

- void **initialize** ()
- final **Field** **getEventOut** (String eventOutName)
- void **processEvents** (final int count, final **Event** events[])
- void **processEvent** ( **Event** event)
- void **eventsProcessed** ()
- void **shutdown** ()

### Protected Member Functions

- final **Field** **getField** (String fieldName)
- final **Field** **getEventIn** (String eventInName)

### 4.830.1 Detailed Description

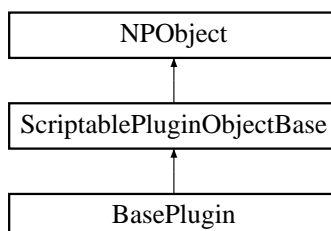
Definition at line 10 of file Script.java.

The documentation for this class was generated from the following file:

- src/java/vrml/node/Script.java

## 4.831 ScriptableObjectBase Class Reference

Inheritance diagram for ScriptableObjectBase:



## Public Member Functions

- **ScriptableObjectBase** ( **NPP** npp)
- virtual void **Invalidate** ()
- virtual bool **HasMethod** (NPIdentifier name)
- virtual bool **Invoke** (NPIdentifier name, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)
- virtual bool **InvokeDefault** (const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)
- virtual bool **HasProperty** (NPIdentifier name)
- virtual bool **GetProperty** (NPIdentifier name, **NPVariant** \*result)
- virtual bool **SetProperty** (NPIdentifier name, const **NPVariant** \*value)
- virtual bool **RemoveProperty** (NPIdentifier name)
- virtual bool **Enumerate** (NPIdentifier \*\*identifier, uint32\_t \*count)
- virtual bool **Construct** (const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)

## Static Public Member Functions

- static void **\_Deallocate** ( **NPObj** \*npobj)
- static void **\_Invalidate** ( **NPObj** \*npobj)
- static bool **\_HasMethod** ( **NPObj** \*npobj, NPIdentifier name)
- static bool **\_Invoke** ( **NPObj** \*npobj, NPIdentifier name, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)
- static bool **\_InvokeDefault** ( **NPObj** \*npobj, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)
- static bool **\_HasProperty** ( **NPObj** \*npobj, NPIdentifier name)
- static bool **\_GetProperty** ( **NPObj** \*npobj, NPIdentifier name, **NPVariant** \*result)
- static bool **\_SetProperty** ( **NPObj** \*npobj, NPIdentifier name, const **NPVariant** \*value)
- static bool **\_RemoveProperty** ( **NPObj** \*npobj, NPIdentifier name)
- static bool **\_Enumerate** ( **NPObj** \*npobj, NPIdentifier \*\*identifier, uint32\_t \*count)
- static bool **\_Construct** ( **NPObj** \*npobj, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)

## Protected Attributes

- **NPP** mNpp

## Additional Inherited Members

### 4.831.1 Detailed Description

Definition at line 68 of file ScriptableObjectBase.h.

The documentation for this class was generated from the following files:

- src/plugin\_win32/ScriptableObjectBase.h
- src/plugin\_win32/ScriptableObjectBase.cpp

## 4.832 ScriptFieldDecl Struct Reference

### Data Fields

- struct **FieldDecl** \* **fieldDecl**
- char \* **ASCIIvalue**
- int **valueChanged**
- union **anyVrml** **value**
- BOOL **valueSet**
- int **eventInSet**
- struct **Shader\_Script** \* **script**

### 4.832.1 Detailed Description

Definition at line 55 of file CScripts.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.h

## 4.833 ScriptFieldInstanceInfo Struct Reference

### Data Fields

- struct **ScriptFieldDecl** \* **decl**
- struct **Shader\_Script** \* **script**

### 4.833.1 Detailed Description

Definition at line 79 of file CScripts.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.h

## 4.834 ScriptParamList Struct Reference

### Data Fields

- struct **ScriptParamList** \* **next**
- indexT **kind**
- indexT **type**
- char \* **field**
- union **anyVrml** **value**

### 4.834.1 Detailed Description

Definition at line 146 of file CScripts.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.h

## 4.835 SeesPdu Struct Reference

### Data Fields

- struct **DistributedEmissionsFamilyPdu** myDistributedEmissionsFamilyPdu
- struct **EntityID** originatingEntityID  
*Originating entity ID.*
- unsigned short **infraredSignatureRepresentationIndex**  
*IR Signature representation index.*
- unsigned short **acousticSignatureRepresentationIndex**  
*acoustic Signature representation index*
- unsigned short **radarCrossSectionSignatureRepresentationIndex**  
*radar cross section representation index*
- unsigned short **numberOfPropulsionSystems**  
*how many propulsion systems*
- unsigned short **numberOfVectoringNozzleSystems**  
*how many vectoring nozzle systems*
- void \* **propulsionSystemData**  
*variable length list of propulsion system data*
- void \* **vectoringSystemData**  
*variable length list of vectoring system data*

### 4.835.1 Detailed Description

Definition at line 1956 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.836 SensStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* fromnode
- struct **X3D\_Node** \* datanode
- void(\* **interpptr** )(void \*, int, int, int)

### 4.836.1 Detailed Description

Definition at line 130 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.837 ServiceRequestPdu Struct Reference

### Data Fields

- struct **LogisticsFamilyPdu** **myLogisticsFamilyPdu**
- struct **EntityID** **requestingEntityID**  
*Entity that is requesting service.*
- struct **EntityID** **servicingEntityID**  
*Entity that is providing the service.*
- unsigned char **serviceTypeRequested**  
*type of service requested*
- unsigned char **numberOfSupplyTypes**  
*How many requested.*
- short **serviceRequestPadding**  
*padding*
- void \* **supplies**

### 4.837.1 Detailed Description

Definition at line 705 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.838 SetDataPdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** **mySimulationManagementFamilyPdu**
- unsigned int **requestID**  
*ID of request.*
- unsigned int **padding1**  
*padding*
- unsigned int **numberOfFixedDatumRecords**  
*Number of fixed datum records.*
- unsigned int **numberOfVariableDatumRecords**  
*Number of variable datum records.*
- void \* **fixedDatums**  
*variable length list of fixed datums*
- void \* **variableDatums**  
*variable length list of variable length datums*

### 4.838.1 Detailed Description

Definition at line 1760 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.839 SetDataReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** mySimulationManagementWithReliability↵  
**FamilyPdu**
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **requestID**  
*Request ID.*
- unsigned int **numberOfFixedDatumRecords**  
*Fixed datum record count.*
- unsigned int **numberOfVariableDatumRecords**  
*variable datum record count*
- void \* **fixedDatumRecords**  
*Fixed datum records.*
- void \* **variableDatumRecords**  
*Variable datum records.*

### 4.839.1 Detailed Description

Definition at line 1321 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.840 SetRecordReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliabilityFamilyPdu**  
*↔*
- unsigned int **requestID**  
*request ID*
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding.*
- unsigned char **pad2**  
*padding*
- unsigned int **numberOfRecordSets**  
*Number of record sets in list.*
- void \* **recordSets**  
*record sets*

### 4.840.1 Detailed Description

Definition at line 1173 of file DIS.h.

### 4.840.2 Field Documentation

#### 4.840.2.1 pad1

```
unsigned short SetRecordReliablePdu::pad1
```

padding.

The spec is unclear and contradictory here.

Definition at line 1180 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.841 sFallInfo Struct Reference

### Data Fields

- double **fallHeight**
- double **climbHeight**
- double **fallStep**
- double **hfall**
- double **hclimb**
- int **isFall**
- int **canFall**
- int **isClimb**
- int **hits**
- int **walking**
- int **smoothStep**
- int **allowClimbing**
- GLDOUBLE **collision2avatar** [16]
- GLDOUBLE **avatar2collision** [16]
- int **checkFall**
- int **checkCylinder**
- int **checkPenetration**
- int **canPenetrate**
- int **isPenetrate**
- GLDOUBLE **penMin** [3]
- GLDOUBLE **penMax** [3]
- struct **point\_XYZ** **penvec**
- double **penRadius**
- struct **point\_XYZ** **pen correction**
- double **pendisp**

### 4.841.1 Detailed Description

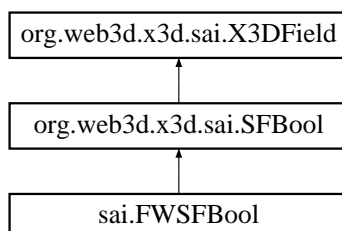
Definition at line 137 of file Collision.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Collision.h

## 4.842 org.web3d.x3d.sai.SFBool Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFBool:





## Public Member Functions

- boolean **getValue** ()
- void **setValue** (boolean value)

### 4.842.1 Detailed Description

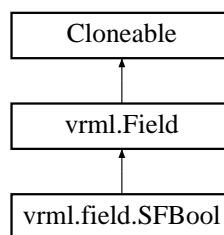
Definition at line 3 of file SFBool.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFBool.java

## 4.843 vrml.field.SFBool Class Reference

Inheritance diagram for vrml.field.SFBool:



## Public Member Functions

- **SFBool** (boolean value)
- boolean **getValue** ()
- void **setValue** (boolean value)
- void **setValue** ( **ConstSFBool** sfBool)
- void **setValue** ( **SFBool** sfBool)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.843.1 Detailed Description

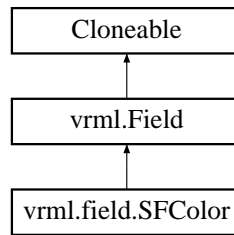
Definition at line 10 of file SFBool.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFBool.java

## 4.844 vrml.field.SFColor Class Reference

Inheritance diagram for vrml.field.SFColor:



### Public Member Functions

- **SFColor** (float red, float green, float blue)
- void **getValue** (float[] values)
- float **getRed** ()
- float **getGreen** ()
- float **getBlue** ()
- void **setValue** (float red, float green, float blue)
- void **setValue** (float[] values)
- void **setValue** ( **ConstSFColor** sfColor)
- void **setValue** ( **SFColor** sfColor)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.844.1 Detailed Description

Definition at line 10 of file SFColor.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFColor.java

## 4.845 SFColor Struct Reference

### Data Fields

- float **c** [3]

### 4.845.1 Detailed Description

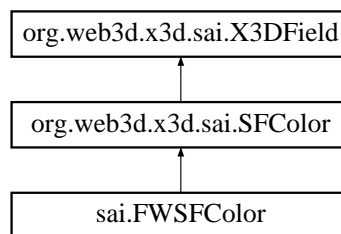
Definition at line 2536 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.846 org.web3d.x3d.sai.SFColor Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFColor:



### Public Member Functions

- void **getValue** (float[] value)
- void **setValue** (float[] value)

### 4.846.1 Detailed Description

Definition at line 3 of file SFColor.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFColor.java

## 4.847 SFColorRGBA Struct Reference

### Data Fields

- float **c** [4]
- float **r** [4]

### 4.847.1 Detailed Description

Definition at line 2538 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.848 org.web3d.x3d.sai.SFColorRGBA Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFColorRGBA:



### Public Member Functions

- void **getValue** (float[] value)
- void **setValue** (float[] value)

### 4.848.1 Detailed Description

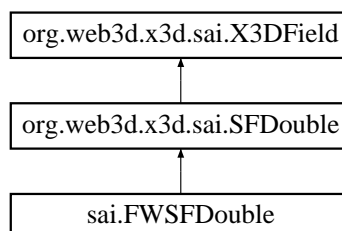
Definition at line 3 of file SFColorRGBA.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFColorRGBA.java

## 4.849 org.web3d.x3d.sai.SFDouble Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFDouble:



## Public Member Functions

- double **getValue** ()
- void **setValue** (double value)

### 4.849.1 Detailed Description

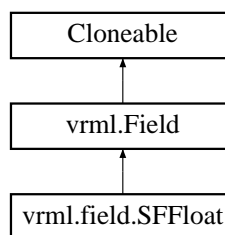
Definition at line 3 of file SFDouble.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFDouble.java

## 4.850 vrml.field.SFFloat Class Reference

Inheritance diagram for vrml.field.SFFloat:



## Public Member Functions

- **SFFloat** (float f)
- float **getValue** ()
- void **setValue** (float f)
- void **setValue** ( **ConstSFFloat** sfFloat)
- void **setValue** ( **SFFloat** sfFloat)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.850.1 Detailed Description

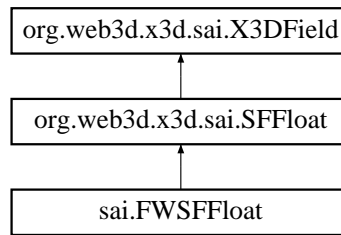
Definition at line 10 of file SFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFFloat.java

## 4.851 org.web3d.x3d.sai.SFFloat Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFFloat:



### Public Member Functions

- float **getValue** ()
- void **setValue** (float value)

### 4.851.1 Detailed Description

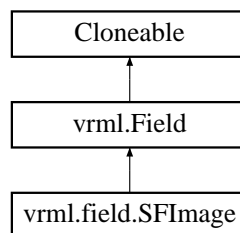
Definition at line 3 of file SFFloat.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFFloat.java

## 4.852 vrml.field.SFImage Class Reference

Inheritance diagram for vrml.field.SFImage:



### Public Member Functions

- **SFImage** (int width, int height, int components, byte[] pixels)
- int **getWidth** ()
- int **getHeight** ()
- int **getComponents** ()
- byte[] **getPixels** ()
- void **setValue** (int width, int height, int components, byte[] pixels)
- void **setValue** ( **ConstSFImage** sflmage)
- void **setValue** ( **SFImage** sflmage)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.852.1 Detailed Description

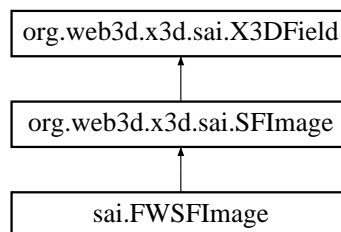
Definition at line 10 of file SFImage.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFImage.java

## 4.853 org.web3d.x3d.sai.SFImage Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFImage:



## Public Member Functions

- int **getWidth** ()
- int **getHeight** ()
- int **getComponents** ()
- void **getPixels** (int[] pixels)
- java.awt.image.WritableRenderedImage **getImage** ()
- void **setValue** (int width, int height, int components, int[] pixels)
- void **setImage** (java.awt.image.RenderedImage image)
- void **setSubImage** (java.awt.image.RenderedImage image, int srcWidth, int srcHeight, int srcXOffset, int srcYOffset, int destXOffset, int destYOffset)

### 4.853.1 Detailed Description

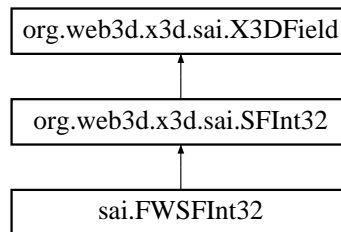
Definition at line 3 of file SFImage.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFImage.java

## 4.854 org.web3d.x3d.sai.SFInt32 Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFInt32:



### Public Member Functions

- int **getValue** ()
- void **setValue** (int value)

### 4.854.1 Detailed Description

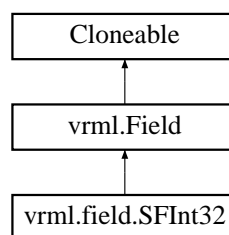
Definition at line 3 of file SFInt32.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFInt32.java

## 4.855 vrml.field.SFInt32 Class Reference

Inheritance diagram for vrml.field.SFInt32:



### Public Member Functions

- **SFInt32** (int value)
- int **getValue** ()
- void **setValue** (int value)
- void **setValue** ( **ConstSFInt32** sflnt32)
- void **setValue** ( **SFInt32** sflnt32)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException



## Additional Inherited Members

### 4.855.1 Detailed Description

Definition at line 10 of file SFInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFInt32.java

## 4.856 SFMatrix3d Struct Reference

### Data Fields

- double **c** [9]

### 4.856.1 Detailed Description

Definition at line 2554 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.857 SFMatrix3f Struct Reference

### Data Fields

- float **c** [9]

### 4.857.1 Detailed Description

Definition at line 2552 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.858 SFMatrix4d Struct Reference

### Data Fields

- double **c** [16]

### 4.858.1 Detailed Description

Definition at line 2558 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.859 SFMatrix4f Struct Reference

### Data Fields

- float **c** [16]

### 4.859.1 Detailed Description

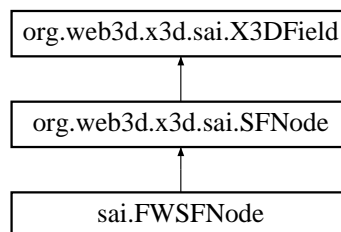
Definition at line 2556 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.860 org.web3d.x3d.sai.SFNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFNode:



### Public Member Functions

- **X3DNode** **getValue** ()
- void **setValue** ( **X3DNode** value) throws InvalidNodeException

### 4.860.1 Detailed Description

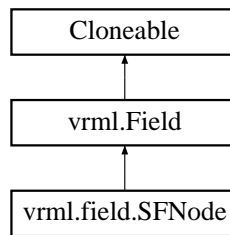
Definition at line 3 of file SFNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFNode.java

## 4.861 vrml.field.SFNode Class Reference

Inheritance diagram for vrml.field.SFNode:



### Public Member Functions

- **SFNode** ( **BaseNode** node)
- **BaseNode** **getValue** ()
- void **setValue** ( **BaseNode** node)
- void **setValue** ( **ConstSFNode** sfNode)
- void **setValue** ( **SFNode** sfNode)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.861.1 Detailed Description

Definition at line 10 of file SFNode.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFNode.java

## 4.862 SFRotation Struct Reference

### Data Fields

- float **c** [4]
- float **r** [4]

#### 4.862.1 Detailed Description

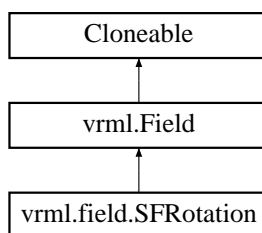
Definition at line 2526 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.863 vrml.field.SFRotation Class Reference

Inheritance diagram for vrml.field.SFRotation:



### Public Member Functions

- **SFRotation** (float axisX, float axisY, float axisZ, float angle)
- void **getValue** (float[] values)
- void **setValue** (float axisX, float axisY, float axisZ, float angle)
- void **setValue** (float[] values)
- void **setValue** ( **ConstSFRotation** sfRotation)
- void **setValue** ( **SFRotation** sfRotation)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.863.1 Detailed Description

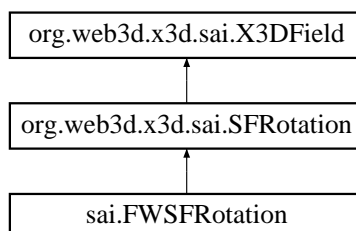
Definition at line 10 of file SFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFRotation.java

## 4.864 org.web3d.x3d.sai.SFRotation Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFRotation:



## Public Member Functions

- void **getValue** (float[] value)
- void **setValue** (float[] value)

### 4.864.1 Detailed Description

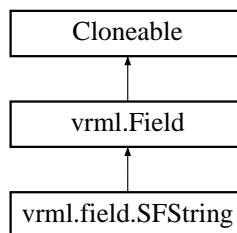
Definition at line 3 of file SFRotation.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFRotation.java

## 4.865 vrml.field.SFString Class Reference

Inheritance diagram for vrml.field.SFString:



## Public Member Functions

- **SFString** (String s)
- String **getValue** ()
- void **setValue** (String s)
- void **setValue** ( **ConstSFString** sfString)
- void **setValue** ( **SFString** sfString)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.865.1 Detailed Description

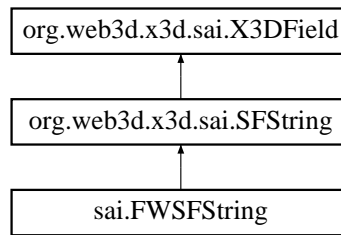
Definition at line 10 of file SFString.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFString.java

## 4.866 org.web3d.x3d.sai.SFString Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFString:



### Public Member Functions

- String **getValue** ()
- void **setValue** (String value)

### 4.866.1 Detailed Description

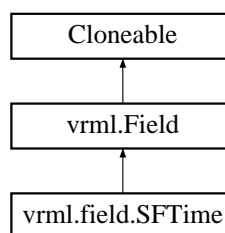
Definition at line 3 of file SFString.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFString.java

## 4.867 vrml.field.SFTime Class Reference

Inheritance diagram for vrml.field.SFTime:



### Public Member Functions

- **SFTime** (double value)
- double **getValue** ()
- void **setValue** (double value)
- void **setValue** ( **ConstSFTime** sfTime)
- void **setValue** ( **SFTime** sfTime)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.867.1 Detailed Description

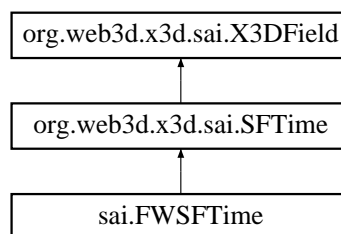
Definition at line 10 of file SFTime.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFTime.java

## 4.868 org.web3d.x3d.sai.SFTime Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFTime:



## Public Member Functions

- double **getValue** ()
- long **getJavaValue** ()
- void **setValue** (double value)
- void **setValue** (long value)

### 4.868.1 Detailed Description

Definition at line 3 of file SFTime.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFTime.java

## 4.869 SFVec2d Struct Reference

## Data Fields

- double **c** [2]

### 4.869.1 Detailed Description

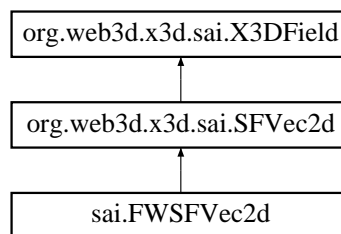
Definition at line 2560 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.870 org.web3d.x3d.sai.SFVec2d Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFVec2d:



### Public Member Functions

- void **getValue** (double[] value)
- void **setValue** (double[] value)

### 4.870.1 Detailed Description

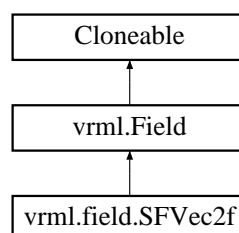
Definition at line 3 of file SFVec2d.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFVec2d.java

## 4.871 vrml.field.SFVec2f Class Reference

Inheritance diagram for vrml.field.SFVec2f:





## Public Member Functions

- **SFVec2f** (float x, float y)
- void **getValue** (float[] values)
- float **getX** ()
- float **getY** ()
- void **setValue** (float x, float y)
- void **setValue** (float[] values)
- void **setValue** ( **ConstSFVec2f** sfVec2f)
- void **setValue** ( **SFVec2f** sfVec2f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.871.1 Detailed Description

Definition at line 10 of file SFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFVec2f.java

## 4.872 SFVec2f Struct Reference

### Data Fields

- float **c** [2]

### 4.872.1 Detailed Description

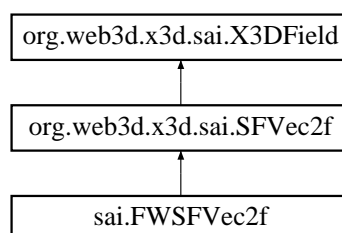
Definition at line 2544 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.873 org.web3d.x3d.sai.SFVec2f Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFVec2f:



## Public Member Functions

- void **getValue** (float[] value)
- void **setValue** (float[] value)

### 4.873.1 Detailed Description

Definition at line 3 of file SFVec2f.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFVec2f.java

## 4.874 SFVec3d Struct Reference

### Data Fields

- double **c** [3]

### 4.874.1 Detailed Description

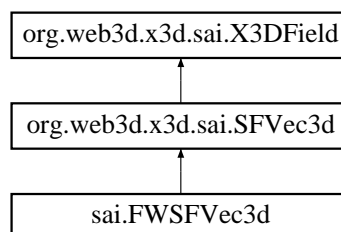
Definition at line 2548 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.875 org.web3d.x3d.sai.SFVec3d Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFVec3d:



## Public Member Functions

- void **getValue** (double[] value)
- void **setValue** (double[] value)

### 4.875.1 Detailed Description

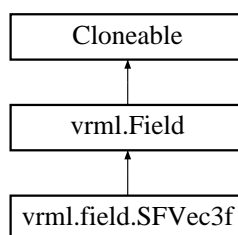
Definition at line 3 of file SFVec3d.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFVec3d.java

## 4.876 vrml.field.SFVec3f Class Reference

Inheritance diagram for vrml.field.SFVec3f:



### Public Member Functions

- **SFVec3f** (float x, float y, float z)
- void **getValue** (float[] values)
- float **getX** ()
- float **getY** ()
- float **getZ** ()
- void **setValue** (float x, float y, float z)
- void **setValue** (float[] values)
- void **setValue** ( **ConstSFVec3f** sfVec3f)
- void **setValue** ( **SFVec3f** sfVec3f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

### 4.876.1 Detailed Description

Definition at line 10 of file SFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/field/SFVec3f.java

## 4.877 SFVec3f Struct Reference

### Data Fields

- float **c** [3]

### 4.877.1 Detailed Description

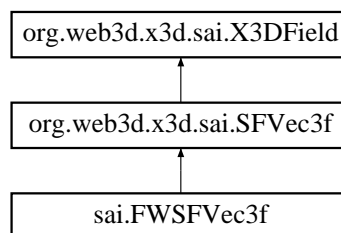
Definition at line 2528 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.878 org.web3d.x3d.sai.SFVec3f Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFVec3f:



### Public Member Functions

- void **getValue** (float[] value)
- void **setValue** (float[] value)

### 4.878.1 Detailed Description

Definition at line 3 of file SFVec3f.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/SFVec3f.java

## 4.879 SFVec4d Struct Reference

### Data Fields

- double **c** [4]

### 4.879.1 Detailed Description

Definition at line 2564 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.880 SFVec4f Struct Reference

### Data Fields

- float **c** [4]

### 4.880.1 Detailed Description

Definition at line 2562 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.881 Shader\_Script Struct Reference

### Data Fields

- struct **X3D\_Node** \* **ShaderScriptNode**
- int **num**
- BOOL **loaded**
- struct **Vector** \* **fields**

### 4.881.1 Detailed Description

Definition at line 112 of file CScripts.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/CScripts.h

## 4.882 shaderflagsstruct Struct Reference

### Data Fields

- int **base**
- int **effects**
- int **usershaders**
- int **volume**

### 4.882.1 Detailed Description

Definition at line 62 of file Component\_Shape.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Shape.h

## 4.883 shaderTableEntry Struct Reference

### Data Fields

- **shaderflagsstruct whichOne**
- **s\_shader\_capabilities\_t \* myCapabilities**

### 4.883.1 Detailed Description

Definition at line 88 of file OpenGL\_Uutils.c.

The documentation for this struct was generated from the following file:

- src/lib/opengl/OpenGL\_Uutils.c

## 4.884 ShaftRPMs Struct Reference

### Data Fields

- short **currentShaftRPMs**  
*Current shaft RPMs.*
- short **orderedShaftRPMs**  
*ordered shaft rpms*
- float **shaftRPMRateOfChange**  
*rate of change of shaft RPMs*

### 4.884.1 Detailed Description

Definition at line 442 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.885 SignalPdu Struct Reference

### Data Fields

- struct **RadioCommunicationsFamilyPdu** myRadioCommunicationsFamilyPdu
- unsigned short **encodingScheme**  
*encoding scheme used, and enumeration*
- unsigned short **tdlType**  
*tdl type*
- unsigned int **sampleRate**  
*sample rate*
- short **dataLength**  
*length od data*
- short **samples**  
*number of samples*
- void \* **data**  
*list of eight bit values*

### 4.885.1 Detailed Description

Definition at line 1926 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.886 SimulationAddress Struct Reference

### Data Fields

- unsigned short **site**  
*The site ID.*
- unsigned short **application**  
*The application ID.*

### 4.886.1 Detailed Description

Definition at line 350 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.887 SimulationManagementFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** myPdu
- struct **EntityID** originatingEntityID  
*Entity that is sending message.*
- struct **EntityID** receivingEntityID  
*Entity that is intended to receive message.*

### 4.887.1 Detailed Description

Definition at line 798 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.888 SimulationManagementWithReliabilityFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** myPdu
- struct **EntityID** originatingEntityID  
*Object originatig the request.*
- struct **EntityID** receivingEntityID  
*Object with which this point object is associated.*

### 4.888.1 Detailed Description

Definition at line 1077 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h



## 4.889 SixByteChunk Struct Reference

### Data Fields

- char **otherParameters** [6]  
*six bytes of arbitrary data*

### 4.889.1 Detailed Description

Definition at line 581 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.890 slice Struct Reference

### Data Fields

- unsigned int **vert\_pos**
- unsigned int **quant\_scale**
- char \* **extra\_info**

### 4.890.1 Detailed Description

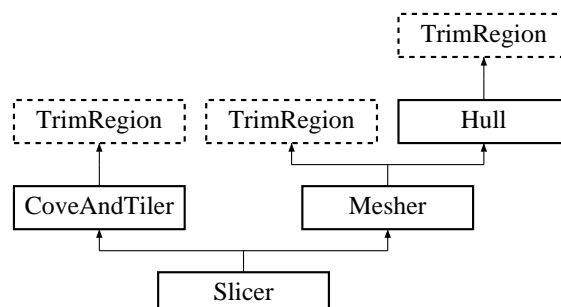
Definition at line 150 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/mpeg\_berkley.h

## 4.891 Slicer Class Reference

Inheritance diagram for Slicer:



## Public Member Functions

- **Slicer** ( **Backend** &)
- void **slice** (Arc\_ptr)
- void **slice\_old** (Arc\_ptr)
- void **slice\_new** (Arc\_ptr)
- void **evalStream** ( **primStream** \*)
- void **evalRBlockArray** ( **rectBlockArray** \*rbArray, **gridWrap** \*grid)
- void **outline** (Arc\_ptr)
- void **setstriptessellation** (REAL, REAL)
- void **setisolines** (int)
- void **set\_ulinear** (int ulinear\_flag)
- void **set\_vlinear** (int vlinear\_flag)

## Additional Inherited Members

### 4.891.1 Detailed Description

Definition at line 49 of file slicer.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/slicer.h
- src/libnurbs/internals/slicer.cc

## 4.892 sNavInfo Struct Reference

### Data Fields

- double **width**
- double **height**
- double **step**

### 4.892.1 Detailed Description

Definition at line 57 of file Bindable.h.

The documentation for this struct was generated from the following file:

- src/lib/x3d\_parser/Bindable.h

## 4.893 SNDFILE Struct Reference

### Data Fields

- int **type**
- FILE \* **fd**
- char **data** [MAXBUFSIZE]
- int **dataptr**
- int **wavdataoffset**
- float **pitch**
- int **bytes\_remaining**
- int **ampl**
- int **balance**
- **fmtChnk** FormatChunk
- **datChnk** DataChunk

### 4.893.1 Detailed Description

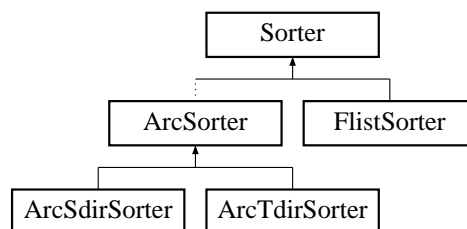
Definition at line 75 of file soundheader.h.

The documentation for this struct was generated from the following file:

- src/sound/soundheader.h

## 4.894 Sorter Class Reference

Inheritance diagram for Sorter:



### Public Member Functions

- **Sorter** (int es)
- void **qsort** (void \*a, int n)

### Protected Member Functions

- virtual int **qscmp** (char \*, char \*)
- virtual void **qsexc** (char \*i, char \*j)
- virtual void **qstexc** (char \*i, char \*j, char \*k)

### 4.894.1 Detailed Description

Definition at line 36 of file sorter.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/sorter.h
- src/libnurbs/internals/sorter.cc

## 4.895 SphericalHarmonicAntennaPattern Struct Reference

### Data Fields

- char **order**

### 4.895.1 Detailed Description

Definition at line 437 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.896 Splinespec Struct Reference

### Public Member Functions

- **Splinespec** (int)
- void **kspecinit** ( **Knotvector** &)
- void **kspecinit** ( **Knotvector** &, **Knotvector** &)
- void **select** (void)
- void **layout** (long)
- void **setupquilt** (Quilt\_ptr)
- void **copy** (INREAL \*)
- void **transform** (void)

### Data Fields

- **Knotspec** \* **kspec**
- int **dim**
- REAL \* **outcpts**

### 4.896.1 Detailed Description

Definition at line 95 of file tobezier.cc.

The documentation for this struct was generated from the following file:

- src/libnurbs/internals/tobezier.cc

## 4.897 **ssr Struct Reference**

### Data Fields

- char \* **name**
- char \* **ip**
- char \* **port**
- void \* **next**
- double **extent** [6]
- int **levels\_available**

### 4.897.1 Detailed Description

Definition at line 552 of file SSRServer.c.

The documentation for this struct was generated from the following file:

- src/SSR/SSRServer.c

## 4.898 **SSR\_request Struct Reference**

### Data Fields

- int **type**
- pthread\_mutex\_t **requester\_mutex**
- pthread\_cond\_t **requester\_condition**
- double **quat4** [4]
- double **vec3** [3]
- char \* **blob**
- int **len**
- int **answered**
- int **LOD**
- int **levels\_available**
- int **status**
- double **extent** [6]
- int **isInside**
- double **avatarHeight**
- double **fov**

### 4.898.1 Detailed Description

Definition at line 7 of file SSRhelper.h.

The documentation for this struct was generated from the following file:

- src/lib/SSRhelper.h

## 4.899 stage Struct Reference

### Data Fields

- **tcontenttype t1**
- **int type**
- **unsigned int ibuffer**
- **unsigned int itexturebuffer**
- **unsigned int idepthbuffer**
- **ivec4 ivport**
- **BOOL clear\_zbuffer**
- **int even\_odd\_frame**

### 4.899.1 Detailed Description

Definition at line 2132 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.900 StartResumePdu Struct Reference

### Data Fields

- **struct SimulationManagementFamilyPdu mySimulationManagementFamilyPdu**
- **struct ClockTime realWorldTime**  
*UTC time at which the simulation shall start or resume.*
- **struct ClockTime simulationTime**  
*Simulation clock time at which the simulation shall start or resume.*
- **unsigned int requestID**  
*Identifier for the request.*

### 4.900.1 Detailed Description

Definition at line 1219 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.901 StartResumeReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** mySimulationManagementWithReliability↔  
**FamilyPdu**
- struct **ClockTime** realWorldTime  
*time in real world for this operation to happen*
- struct **ClockTime** simulationTime  
*time in simulation for the simulation to resume*
- unsigned char **requiredReliabilityService**  
*level of reliability service used for this transaction*
- unsigned short **pad1**  
*padding*
- unsigned char **pad2**  
*padding*
- unsigned int **requestID**  
*Request ID.*

### 4.901.1 Detailed Description

Definition at line 1513 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.902 StopFreezePdu Struct Reference

### Data Fields

- struct **SimulationManagementFamilyPdu** mySimulationManagementFamilyPdu
- struct **ClockTime** realWorldTime  
*UTC time at which the simulation shall stop or freeze.*
- unsigned char **reason**  
*Reason the simulation was stopped or frozen.*
- unsigned char **frozenBehavior**  
*Internal behavior of the simulation and its appearance while frozen to the other participants.*
- short **padding1**  
*padding*
- unsigned int **requestID**  
*Request ID that is unique.*

### 4.902.1 Detailed Description

Definition at line 1190 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.903 StopFreezeReliablePdu Struct Reference

### Data Fields

- struct **SimulationManagementWithReliabilityFamilyPdu** **mySimulationManagementWithReliabilityFamilyPdu**  
*time in real world for this operation to happen*
- struct **ClockTime** **realWorldTime**  
*time in real world for this operation to happen*
- unsigned char **reason**  
*Reason for stopping/freezing simulation.*
- unsigned char **frozenBehavior**  
*internal behavior of the simulation while frozen*
- unsigned char **requiredReliabilityService**  
*reliability level*
- unsigned char **pad1**  
*padding*
- unsigned int **requestID**  
*Request ID.*

### 4.903.1 Detailed Description

Definition at line 1990 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.904 StoredVertex Class Reference

### Public Member Functions

- void **saveEvalCoord** (REAL x, REAL y)
- void **saveEvalPoint** (long x, long y)
- void **invoke** ( **OpenGLSurfaceEvaluator** \*eval)

### 4.904.1 Detailed Description

Definition at line 85 of file glsurfeval.h.

The documentation for this class was generated from the following file:

- src/libnurbs/interface/glsurfeval.h



## 4.905 stringint Struct Reference

### Data Fields

- char \* **c**
- int **i**

### 4.905.1 Detailed Description

Definition at line 1854 of file Component\_Geospatial.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Geospatial.c

## 4.906 Subdivider Class Reference

### Public Member Functions

- **Subdivider** ( **Renderhints** &, **Backend** &)
- void **clear** (void)
- void **beginTrims** (void)
- void **beginLoop** (void)
- void **addArc** (REAL \*, **Quilt** \*, long)
- void **addArc** (int, **TrimVertex** \*, long)
- void **endLoop** (void)
- void **endTrims** (void)
- void **beginQuilts** (void)
- void **addQuilt** ( **Quilt** \*)
- void **endQuilts** (void)
- void **drawCurves** (void)
- void **drawSurfaces** (long)
- int **ccwTurn\_sl** (Arc\_ptr, Arc\_ptr)
- int **ccwTurn\_sr** (Arc\_ptr, Arc\_ptr)
- int **ccwTurn\_tl** (Arc\_ptr, Arc\_ptr)
- int **ccwTurn\_tr** (Arc\_ptr, Arc\_ptr)
- void **setJumpbuffer** (JumpBuffer \*)
- void **set\_domain\_distance\_u\_rate** (REAL u\_rate)
- void **set\_domain\_distance\_v\_rate** (REAL v\_rate)
- void **set\_is\_domain\_distance\_sampling** (int flag)

### 4.906.1 Detailed Description

Definition at line 55 of file subdivider.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/subdivider.h
- src/libnurbs/internals/ccw.cc
- src/libnurbs/internals/curvesub.cc
- src/libnurbs/internals/intersect.cc
- src/libnurbs/internals/monotonizer.cc
- src/libnurbs/internals/splitarcs.cc
- src/libnurbs/internals/subdivider.cc

## 4.907 SupplyQuantity Struct Reference

### Data Fields

- struct **EntityType** **supplyType**  
*Type of supply.*
- unsigned char **quantity**  
*quantity to be supplied*

### 4.907.1 Detailed Description

Definition at line 1036 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.908 surfEvalMachine Struct Reference

### Data Fields

- REAL **uprime**
- REAL **vprime**
- int **k**
- REAL **u1**
- REAL **u2**
- int **ustride**
- int **uorder**
- REAL **v1**
- REAL **v2**
- int **vstride**
- int **vorder**
- REAL **ctlPoints** [IN\_MAX\_BEZIER\_ORDER \* IN\_MAX\_BEZIER\_ORDER \* IN\_MAX\_DIMENSION]
- REAL **ucoeff** [IN\_MAX\_BEZIER\_ORDER]
- REAL **vcoeff** [IN\_MAX\_BEZIER\_ORDER]
- REAL **ucoeffDeriv** [IN\_MAX\_BEZIER\_ORDER]
- REAL **vcoeffDeriv** [IN\_MAX\_BEZIER\_ORDER]

### 4.908.1 Detailed Description

Definition at line 64 of file glsurfeval.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/interface/glsurfeval.h

## 4.909 sweepRange Struct Reference

### Data Fields

- **directedLine** \* **left**
- **Int leftType**
- **directedLine** \* **right**
- **Int rightType**

### 4.909.1 Detailed Description

Definition at line 70 of file partitionY.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/nurbtess/partitionY.h

## 4.910 SyntheticEnvironmentFamilyPdu Struct Reference

### Data Fields

- struct **Pdu myPdu**

### 4.910.1 Detailed Description

Definition at line 762 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.911 SystemID Struct Reference

### Data Fields

- unsigned short **systemType**  
*System Type.*
- unsigned short **systemName**  
*System name, an enumeration.*
- unsigned char **systemMode**  
*System mode.*
- unsigned char **changeOptions**  
*Change Options.*

#### 4.911.1 Detailed Description

Definition at line 156 of file DIS.h.

The documentation for this struct was generated from the following file:

- `src/lib/DIS/DIS.h`

### 4.912 targetwindow Struct Reference

#### Data Fields

- `contenttype * stage`
- `void * hwnd`
- `BOOL swapbuf`
- `ivec4 ivport`
- `freewrl_params_t params`
- `struct targetwindow * next`

#### 4.912.1 Detailed Description

Definition at line 2965 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- `src/lib/main/MainLoop.c`

### 4.913 iiglobal::tBindable Struct Reference

#### Data Fields

- `void * naviinfo`
- `int activeLayer`
- `void * bstacks`
- `void * prv`

#### 4.913.1 Detailed Description

Definition at line 421 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`

## 4.914 iiglobal::tcollision Struct Reference

### Data Fields

- void \* **prv**

#### 4.914.1 Detailed Description

Definition at line 241 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.915 iiglobal::tcommon Struct Reference

### Data Fields

- void \* **prv**

#### 4.915.1 Detailed Description

Definition at line 443 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.916 iiglobal::tComponent\_CubeMapTexturing Struct Reference

### Data Fields

- void \* **prv**

#### 4.916.1 Detailed Description

Definition at line 244 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.917 iiglobal::tComponent\_EnvironSensor Struct Reference

### Data Fields

- void \* **prv**

### 4.917.1 Detailed Description

Definition at line 247 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.918 iiglobal::tComponent\_Followers Struct Reference

### Data Fields

- void \* **prv**

### 4.918.1 Detailed Description

Definition at line 277 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.919 iiglobal::tComponent\_Geometry3D Struct Reference

### Data Fields

- void \* **prv**

### 4.919.1 Detailed Description

Definition at line 250 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.920 iiglobal::tComponent\_Geospatial Struct Reference

### Data Fields

- void \* **prv**

#### 4.920.1 Detailed Description

Definition at line 253 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.921 iiglobal::tComponent\_HAnim Struct Reference

### Data Fields

- void \* **prv**

#### 4.921.1 Detailed Description

Definition at line 256 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.922 iiglobal::tComponent\_KeyDevice Struct Reference

### Data Fields

- void \* **prv**

#### 4.922.1 Detailed Description

Definition at line 280 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.923 `iiglobal::tComponent_Layering` Struct Reference

### Data Fields

- `void * prv`

### 4.923.1 Detailed Description

Definition at line 259 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`

## 4.924 `iiglobal::tComponent_Layout` Struct Reference

### Data Fields

- `void * prv`

### 4.924.1 Detailed Description

Definition at line 262 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`

## 4.925 `iiglobal::tComponent_NURBS` Struct Reference

### Data Fields

- `void * prv`

### 4.925.1 Detailed Description

Definition at line 265 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`



## 4.926 iiglobal::tComponent\_ParticleSystems Struct Reference

### Data Fields

- void \* **prv**

#### 4.926.1 Detailed Description

Definition at line 268 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.927 iiglobal::tComponent\_Picking Struct Reference

### Data Fields

- void \* **prv**

#### 4.927.1 Detailed Description

Definition at line 294 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.928 iiglobal::tComponent\_ProgrammableShaders Struct Reference

### Data Fields

- void \* **prv**

#### 4.928.1 Detailed Description

Definition at line 271 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.929 **iiglobal::tComponent\_Rendering Struct Reference**

### Data Fields

- void \* **prv**

### 4.929.1 Detailed Description

Definition at line 297 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`

## 4.930 **iiglobal::tComponent\_RigidBodyPhysics Struct Reference**

### Data Fields

- void \* **prv**

### 4.930.1 Detailed Description

Definition at line 274 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`

## 4.931 **iiglobal::tComponent\_Shape Struct Reference**

### Data Fields

- void \* **prv**

### 4.931.1 Detailed Description

Definition at line 300 of file `iiglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iiglobal.h`

## 4.932 iiglobal::tComponent\_Sound Struct Reference

### Data Fields

- int **sound\_from\_audioclip**
- int **SoundEngineStarted**
- void \* **prv**

### 4.932.1 Detailed Description

Definition at line 303 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.933 iiglobal::tComponent\_Text Struct Reference

### Data Fields

- void \* **prv**

### 4.933.1 Detailed Description

Definition at line 309 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.934 iiglobal::tComponent\_VolumeRendering Struct Reference

### Data Fields

- void \* **prv**

### 4.934.1 Detailed Description

Definition at line 315 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.935 iiglobal::tComponent\_VRML1 Struct Reference

### Data Fields

- void \* **prv**

### 4.935.1 Detailed Description

Definition at line 312 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.936 iiglobal::tConsoleMessage Struct Reference

### Data Fields

- int **consMsgCount**
- int **Console\_writeToHud**
- void \* **prv**

### 4.936.1 Detailed Description

Definition at line 128 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.937 tcontenttype Struct Reference

### Data Fields

- int **itype**
- **contenttype** \* **contents**
- **contenttype** \* **next**
- **contenttype** \* **pnext**
- float **viewport** [4]
- void(\* **render** )(void \*self)
- int(\* **pick** )(void \*self, int mev, int butnum, int mouseX, int mouseY, unsigned int ID, int windex)

### 4.937.1 Detailed Description

Definition at line 447 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.938 iiglobal::tCParse Struct Reference

### Data Fields

- void \* **globalParser**
- void \* **prv**

### 4.938.1 Detailed Description

Definition at line 375 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.939 iiglobal::tCParserParser Struct Reference

### Data Fields

- void \* **prv**

### 4.939.1 Detailed Description

Definition at line 379 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.940 iiglobal::tCRoutes Struct Reference

### Data Fields

- void \* **CRoutesExtra**
- void \* **JSSFpointer**
- int **max\_script\_found**
- int **max\_script\_found\_and\_initialized**
- int **jsnameindex**
- int **MAXJSparamNames**
- void \* **prv**

#### 4.940.1 Detailed Description

Definition at line 382 of file iglobal.h.

The documentation for this struct was generated from the following file:

- `src/lib/iglobal.h`

### 4.941 `iiglobal::tCScripts` Struct Reference

#### Data Fields

- `void * prv`

#### 4.941.1 Detailed Description

Definition at line 394 of file iglobal.h.

The documentation for this struct was generated from the following file:

- `src/lib/iglobal.h`

### 4.942 `iiglobal::tCursorDraw` Struct Reference

#### Data Fields

- `void * prv`

#### 4.942.1 Detailed Description

Definition at line 446 of file iglobal.h.

The documentation for this struct was generated from the following file:

- `src/lib/iglobal.h`

### 4.943 `iiglobal::tdisplay` Struct Reference

#### Data Fields

- `void * params`
- `int _global_gl_err`
- `IBOOL display_initialized`
- `int screenWidth`
- `int screenHeight`
- `char * window_title`
- `int shutterGlasses`
- `void * rdr_caps`
- `void * prv`

### 4.943.1 Detailed Description

Definition at line 43 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.944 iiglobal::tEAI\_C\_CommonFunctions Struct Reference

### Data Fields

- int **eaiverbose**
- void \* **prv**

### 4.944.1 Detailed Description

Definition at line 105 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.945 iiglobal::tEAICore Struct Reference

### Data Fields

- char \* **EAIbuffer**
- int **EAIbufcount**
- int **EAIbufpos**
- int **EAIbufsize**
- void \* **prv**

### 4.945.1 Detailed Description

Definition at line 117 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.946 iiglobal::tEAIEventsIn Struct Reference

### Data Fields

- void \* **prv**

#### 4.946.1 Detailed Description

Definition at line 109 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

### 4.947 iiglobal::tEAIHelpers Struct Reference

#### Data Fields

- char \* **outBuffer**
- int **outBufferLen**
- void \* **prv**

#### 4.947.1 Detailed Description

Definition at line 112 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

### 4.948 text\_combiner\_data Struct Reference

#### Data Fields

- float \* **coords**
- int \* **counter**
- int \* **ria**
- int \* **riaindex**

#### 4.948.1 Detailed Description

Definition at line 962 of file headers.h.

The documentation for this struct was generated from the following file:

- src/lib/main/headers.h



## 4.949 textureTableIndexStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **scenegraphNode**
- int **nodeType**
- int **status**
- int **hasAlpha**
- GLuint **OpenGLTexture**
- GLuint **ifbobuffer**
- GLuint **idepthbuffer**
- int **frames**
- char \* **filename**
- int **x**
- int **y**
- int **z**
- int **tiles** [3]
- unsigned char \* **texdata**
- GLint **repeatSTR** [3]
- GLint **magFilter**
- int **textureNumber**
- int **channels**

### 4.949.1 Detailed Description

Definition at line 37 of file Textures.h.

The documentation for this struct was generated from the following file:

- src/lib/OpenGL/Textures.h

## 4.950 textureVertexInfo Struct Reference

### Data Fields

- GLfloat \* **pre\_canned\_textureCoords**
- GLint **TC\_size**
- GLenum **TC\_type**
- GLsizei **TC\_stride**
- GLvoid \* **TC\_pointer**
- void \* **next**
- GLint **VBO**

### 4.950.1 Detailed Description

Definition at line 67 of file Textures.h.

The documentation for this struct was generated from the following file:

- src/lib/OpenGL/Textures.h

## 4.951 `iglobal::tFrustum` Struct Reference

### Data Fields

- `int OccFailed`
- `void * prv`

### 4.951.1 Detailed Description

Definition at line 190 of file `iglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iglobal.h`

## 4.952 `iglobal::tinternalc` Struct Reference

### Data Fields

- `IBOOL global_strictParsing`
- `IBOOL global_plugin_print`
- `IBOOL global_occlusion_disable`
- `unsigned user_request_texture_size`
- `IBOOL global_print_opengl_errors`
- `IBOOL global_trace_threads`
- `void * prv`

### 4.952.1 Detailed Description

Definition at line 54 of file `iglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iglobal.h`

## 4.953 `iglobal::tLoadTextures` Struct Reference

### Data Fields

- `void * prv`

### 4.953.1 Detailed Description

Definition at line 194 of file `iglobal.h`.

The documentation for this struct was generated from the following file:

- `src/lib/iglobal.h`

## 4.954 `tm_unz_s` Struct Reference

### Data Fields

- `uint tm_sec`
- `uint tm_min`
- `uint tm_hour`
- `uint tm_mday`
- `uint tm_mon`
- `uint tm_year`

### 4.954.1 Detailed Description

Definition at line 84 of file `unzip.h`.

The documentation for this struct was generated from the following file:

- `src/libminizip/unzip.h`

## 4.955 `tm_zip_s` Struct Reference

### Data Fields

- `uint tm_sec`
- `uint tm_min`
- `uint tm_hour`
- `uint tm_mday`
- `uint tm_mon`
- `uint tm_year`

### 4.955.1 Detailed Description

Definition at line 89 of file `zip.h`.

The documentation for this struct was generated from the following file:

- `src/libminizip/zip.h`

## 4.956 iiglobal::tMainloop Struct Reference

### Data Fields

- float **gl\_linewidth**
- int **currentFileVersion**
- double **TickTime**
- double **lastTime**
- double **BrowserFPS**
- double **BrowserSpeed**
- const char \* **BrowserDescription**
- int **HaveSensitive**
- int **AllowNavDrag**
- int **trisThisLoop**
- int **clipPlane**
- int **SHIFT**
- int **CTRL**
- void \* **prv**
- char \* **tmpFileLocation**
- char \* **url**
- char \* **scene\_name**
- char \* **scene\_suff**
- int **scene\_profile**
- int \* **scene\_components**
- char \* **replaceWorldRequest**
- void \* **replaceWorldRequestMulti**
- void \* **\_vportstack**
- void \* **\_stagestack**
- void \* **\_framebufferstack**
- int **screenOrientation2**
- int **pickray\_x**
- int **pickray\_y**
- float **fieldOfView**

### 4.956.1 Detailed Description

Definition at line 133 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.957 iiglobal::tOpenGL\_Utils Struct Reference

### Data Fields

- int **displayDepth**
- int **cc\_changed**
- void \* **prv**

### 4.957.1 Detailed Description

Definition at line 199 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.958 Touch Struct Reference

### Data Fields

- int **buttonState**
- int **mev**
- unsigned int **ID**
- int **inUse**
- float **angle**
- int **x**
- int **y**
- float **fx**
- float **fy**
- int **dragStart**
- int **dragEnd**
- int **windex**
- void \* **stageld**
- int **rx**
- int **ry**
- int **claimant**
- int **passed**
- struct **X3D\_Node** \* **CursorOverSensitive**
- struct **X3D\_Node** \* **oldCOS**
- struct **X3D\_Node** \* **lastPressedOver**
- struct **X3D\_Node** \* **lastOver**
- int **lastOverButtonPressed**
- void \* **hypersensitive**
- int **hyperhit**
- double **justModel** [16]
- struct **point\_XYZ** **hp**

### 4.958.1 Detailed Description

Definition at line 153 of file MainLoop.c.

The documentation for this struct was generated from the following file:

- src/lib/main/MainLoop.c

## 4.959 iiglobal::tPluginSocket Struct Reference

### Data Fields

- void \* **prv**

### 4.959.1 Detailed Description

Definition at line 235 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.960 iiglobal::tpluginUtils Struct Reference

### Data Fields

- void \* **prv**

### 4.960.1 Detailed Description

Definition at line 238 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.961 iiglobal::tProdCon Struct Reference

### Data Fields

- struct **Vector** \* **viewpointNodes**
- int **currboundvpno**
- struct **X3D\_Node** \* **setViewpointBindInRender**
- struct **X3D\_Node** \* **setFogBindInRender**
- struct **X3D\_Node** \* **setBackgroundBindInRender**
- struct **X3D\_Node** \* **setNavigationBindInRender**
- void \* **savedParser**
- void \* **prv**

### 4.961.1 Detailed Description

Definition at line 166 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.962 TrackJamTarget Struct Reference

### Data Fields

- struct **EntityID** **trackJam**  
*track/jam target*
- unsigned char **emitterID**  
*Emitter ID.*
- unsigned char **beamID**  
*beam ID*

### 4.962.1 Detailed Description

Definition at line 1273 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.963 TransferControlRequestPdu Struct Reference

### Data Fields

- struct **EntityManagementFamilyPdu** **myEntityManagementFamilyPdu**
- struct **EntityID** **originatingEntityID**  
*ID of entity originating request.*
- struct **EntityID** **receivingEntityID**  
*ID of entity receiving request.*
- unsigned int **requestID**  
*ID of request.*
- unsigned char **requiredReliabilityService**  
*required level of reliability service.*
- unsigned char **transferType**  
*type of transfer desired*
- struct **EntityID** **transferEntityID**  
*The entity for which control is being requested to transfer.*
- unsigned char **numberOfRecordSets**  
*number of record sets to transfer*
- void \* **recordSets**  
^^^ This is wrong—the **RecordSet** (p. 547) class needs more work

### 4.963.1 Detailed Description

Definition at line 1476 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.964 TransmitterPdu Struct Reference

### Data Fields

- struct **RadioCommunicationsFamilyPdu** **myRadioCommunicationsFamilyPdu**
- struct **RadioEntityType** **radioEntityType**  
*linear acceleration of entity*
- unsigned char **transmitState**  
*transmit state*
- unsigned char **inputSource**  
*input source*
- unsigned short **padding1**  
*padding*
- struct **Vector3Double** **antennaLocation**  
*Location of antenna.*
- struct **Vector3Float** **relativeAntennaLocation**  
*relative location of antenna*
- unsigned short **antennaPatternType**  
*antenna pattern type*
- unsigned short **antennaPatternCount**  
*atenna pattern length*
- unsigned long long **frequency**  
*frequency*
- float **transmitFrequencyBandwidth**  
*transmit frequency Bandwidth*
- float **power**  
*transmission power*
- struct **ModulationType** **modulationType**  
*modulation*
- unsigned short **cryptoSystem**  
*crypto system enumeration*
- unsigned short **cryptoKeyId**  
*crypto system key identifier*
- unsigned char **modulationParameterCount**  
*how many modulation parameters we have*
- unsigned short **padding2**  
*padding2*
- unsigned char **padding3**  
*padding3*
- void \* **modulationParametersList**  
*variable length list of modulation parameters*
- void \* **antennaPatternList**  
*variable length list of antenna pattern records*



### 4.964.1 Detailed Description

Definition at line 1230 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.965 treeNode Struct Reference

### Data Fields

- void \* **key**
- struct **treeNode** \* **parent**
- struct **treeNode** \* **left**
- struct **treeNode** \* **right**

### 4.965.1 Detailed Description

Definition at line 36 of file searchTree.h.

The documentation for this struct was generated from the following file:

- src/libnurbs/nurbtess/searchTree.h

## 4.966 iiGlobal::tRenderFuncs Struct Reference

### Data Fields

- int **BrowserAction**
- double **hitPointDist**
- float **hyp\_save\_posn** [3]
- float **hyp\_save\_norm** [3]
- float **ray\_save\_posn** [3]
- float **camera\_axis** [3]
- void \* **hypersensitive**
- int **hyperhit**
- void \* **hp**
- void \* **rayHit**
- int **lightingOn**
- int **have\_transparency**
- int **last\_texture\_type**
- unsigned int **boundTextureStack** [10]
- int **textureStackTop**
- void \* **texturenode**
- void \* **shapenode**
- void \* **prv**

### 4.966.1 Detailed Description

Definition at line 318 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.967 trenderstate Struct Reference

### Data Fields

- int **render\_sensitive**
- int **render\_picking**
- int **render\_vp**
- int **render\_light**
- int **render\_proximity**
- int **render\_other**
- int **verbose**
- int **render\_blend**
- int **render\_geom**
- int **render\_collision**
- int **render\_cube**
- int **render\_background**
- int **render\_boxes**

### 4.967.1 Detailed Description

Definition at line 791 of file headers.h.

The documentation for this struct was generated from the following file:

- src/lib/main/headers.h

## 4.968 iiglobal::tRenderTextures Struct Reference

### Data Fields

- void \* **textureParameterStack**
- void \* **prv**

### 4.968.1 Detailed Description

Definition at line 220 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.969 iiglobal::tresources Struct Reference

### Data Fields

- void \* **root\_res**
- void \* **prv**

### 4.969.1 Detailed Description

Definition at line 66 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.970 Trimline Class Reference

### Public Member Functions

- void **init** ( **TrimVertex** \*)
- void **init** (long, Arc\_ptr, long)
- void **getNextPt** (void)
- void **getPrevPt** (void)
- void **getNextPts** (REAL, **Backend** &)
- void **getPrevPts** (REAL, **Backend** &)
- void **getNextPts** (Arc\_ptr)
- void **getPrevPts** (Arc\_ptr)
- **TrimVertex** \* **next** (void)
- **TrimVertex** \* **prev** (void)
- **TrimVertex** \* **first** (void)
- **TrimVertex** \* **last** (void)

### 4.970.1 Detailed Description

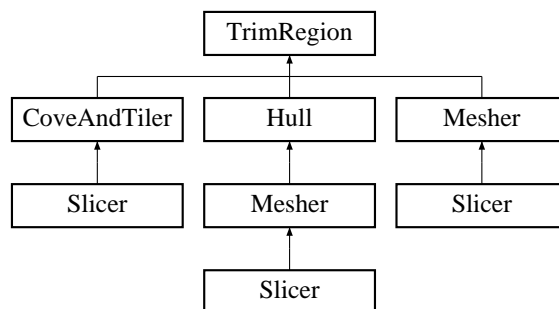
Definition at line 46 of file trimline.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/trimline.h
- src/libnurbs/internals/trimline.cc

## 4.971 TrimRegion Class Reference

Inheritance diagram for TrimRegion:



### Public Member Functions

- void **init** (REAL)
- void **advance** (REAL, REAL, REAL)
- void **setDu** (REAL)
- void **init** (long, Arc\_ptr)
- void **getPts** (Arc\_ptr)
- void **getPts** ( Backend &)
- void **getGridExtent** ( TrimVertex \*, TrimVertex \*)
- void **getGridExtent** (void)
- int **canTile** (void)

### Data Fields

- Trimline left
- Trimline right
- Gridline top
- Gridline bot
- Uarray uarray

### 4.971.1 Detailed Description

Definition at line 46 of file trimregion.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/trimregion.h
- src/libnurbs/internals/trimregion.cc

## 4.972 TrimVertex Class Reference

### Data Fields

- REAL **param** [2]
- long **nuid**

### 4.972.1 Detailed Description

Definition at line 43 of file trimvertex.h.

The documentation for this class was generated from the following file:

- src/libnurbs/internals/trimvertex.h

## 4.973 TrimVertexPool Class Reference

### Public Member Functions

- void **clear** (void)
- **TrimVertex** \* **get** (int)

### 4.973.1 Detailed Description

Definition at line 45 of file trimvertpool.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/trimvertpool.h
- src/libnurbs/internals/trimvertpool.cc

## 4.974 iiglobal::tSensInterps Struct Reference

### Data Fields

- void \* **prv**

### 4.974.1 Detailed Description

Definition at line 125 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.975 iiglobal::tSnapshot Struct Reference

### Data Fields

- IBOOL **doSnapshot**
- IBOOL **doPrintshot**
- int **snapGoodCount**
- void \* **prv**

#### 4.975.1 Detailed Description

Definition at line 99 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

### 4.976 iiglobal::tstatusbar Struct Reference

#### Data Fields

- void \* **prv**

#### 4.976.1 Detailed Description

Definition at line 372 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

### 4.977 iiglobal::tStreamPoly Struct Reference

#### Data Fields

- void \* **prv**

#### 4.977.1 Detailed Description

Definition at line 354 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

### 4.978 iiglobal::tTess Struct Reference

#### Data Fields

- int \* **global\_IFS\_Coords**
- int **global\_IFS\_Coord\_count**
- void \* **global\_tessobj**
- int \* **text\_IFS\_Coords**
- int **text\_IFS\_Coord\_count**
- void \* **text\_tessobj**
- void \* **prv**

### 4.978.1 Detailed Description

Definition at line 357 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.979 iiglobal::tTextures Struct Reference

### Data Fields

- unsigned int \* **global\_tcin**
- int **global\_tcin\_count**
- void \* **global\_tcin\_lastParent**
- unsigned int **defaultBlankTexture**
- void \* **prv**

### 4.979.1 Detailed Description

Definition at line 225 of file iiglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iiglobal.h

## 4.980 iiglobal::tthreads Struct Reference

### Data Fields

- pthread\_t **disposeThread**
- pthread\_t **mainThread**
- pthread\_t **DispThrd**
- pthread\_t **PCthread**
- pthread\_t **loadThread**
- pthread\_mutex\_t **mutex\_resource\_tree**
- pthread\_mutex\_t **mutex\_resource\_list**
- pthread\_cond\_t **resource\_list\_condition**
- pthread\_mutex\_t **mutex\_frontend\_list**
- pthread\_mutex\_t **mutex\_texture\_list**
- pthread\_cond\_t **texture\_list\_condition**
- IBOOL **ResourceThreadRunning**
- IBOOL **TextureThreadRunning**
- IBOOL **ResourceThreadWaiting**
- IBOOL **TextureThreadWaiting**
- IBOOL **flushing**
- int **MainLoopQuit**
- void \* **prv**

### 4.980.1 Detailed Description

Definition at line 71 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.981 iiglobal::tViewer Struct Reference

### Data Fields

- int **stereotype**
- void \* **prv**

### 4.981.1 Detailed Description

Definition at line 368 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.982 TwoByteChunk Struct Reference

### Data Fields

- char **otherParameters** [2]  
*two bytes of arbitrary data*

### 4.982.1 Detailed Description

Definition at line 306 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.983 iiglobal::tX3DParser Struct Reference

### Data Fields

- int **parentIndex**
- char \* **CDATA\_Text**
- int **CDATA\_Text\_curlen**
- void \* **prv**



### 4.983.1 Detailed Description

Definition at line 436 of file iglobal.h.

The documentation for this struct was generated from the following file:

- src/lib/iglobal.h

## 4.984 UaPdu Struct Reference

### Data Fields

- struct **DistributedEmissionsFamilyPdu** myDistributedEmissionsFamilyPdu
- struct **EntityID** emittingEntityID  
*ID of the entity that is the source of the emission.*
- struct **EventID** eventID  
*ID of event.*
- char **stateChangeIndicator**  
*This field shall be used to indicate whether the data in the UA PDU represent a state update or data that have changed since issuance of the last UA PDU.*
- char **pad**  
*padding*
- unsigned short **passiveParameterIndex**  
*This field indicates which database record (or file) shall be used in the definition of passive signature (unintentional) emissions of the entity.*
- unsigned char **propulsionPlantConfiguration**  
*This field shall specify the entity propulsion plant configuration.*
- unsigned char **numberOfShafts**  
*This field shall represent the number of shafts on a platform.*
- unsigned char **numberOfAPAs**  
*This field shall indicate the number of APAs described in the current UA PDU.*
- unsigned char **numberOfUAEmitterSystems**  
*This field shall specify the number of UA emitter systems being described in the current UA PDU.*
- void \* **shaftRPMs**  
*shaft RPM values*
- void \* **apaData**  
*apaData*
- void \* **emitterSystems**

### 4.984.1 Detailed Description

Definition at line 1869 of file DIS.h.

### 4.984.2 Field Documentation

#### 4.984.2.1 `passiveParameterIndex`

```
unsigned short UaPdu::passiveParameterIndex
```

This field indicates which database record (or file) shall be used in the definition of passive signature (unintentional) emissions of the entity.

The indicated database record (or file) shall define all noise generated as a function of propulsion plant configurations and associated auxiliaries.

Definition at line 1880 of file DIS.h.

#### 4.984.2.2 `propulsionPlantConfiguration`

```
unsigned char UaPdu::propulsionPlantConfiguration
```

This field shall specify the entity propulsion plant configuration.

This field is used to determine the passive signature characteristics of an entity.

Definition at line 1882 of file DIS.h.

The documentation for this struct was generated from the following file:

- `src/lib/DIS/DIS.h`

### 4.985 `Uarray` Class Reference

#### Public Member Functions

- `long init (REAL, Arc_ptr, Arc_ptr)`

#### Data Fields

- `REAL * uarray`

#### 4.985.1 Detailed Description

Definition at line 44 of file `uarray.h`.

The documentation for this class was generated from the following files:

- `src/libnurbs/internals/uarray.h`
- `src/libnurbs/internals/uarray.cc`

## 4.986 un1 Union Reference

### Data Fields

- int **i**
- float **f**
- void \* **p**

### 4.986.1 Detailed Description

Definition at line 2 of file ringbuf.h.

The documentation for this union was generated from the following file:

- src/lib/scenegraph/ringbuf.h

## 4.987 unca Struct Reference

### Data Fields

- char \* **catname**
- int **iunca**
- int **lengthpower**
- int **derived**
- int **ichanged**
- double **factor**
- char \* **uname**

### 4.987.1 Detailed Description

Definition at line 1719 of file CParseParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.c

## 4.988 Uni\_String Struct Reference

### Data Fields

- int **len**
- char \* **strptr**
- int **touched**
- size\_t **len**

### 4.988.1 Detailed Description

Definition at line 51 of file Structs.h.

The documentation for this struct was generated from the following files:

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.989 unitsB Struct Reference

### Data Fields

- char \* **catname**
- int **iunca**
- int **lengthpower**
- int **derived**
- int **ichanged**
- double **factor**
- char **uname** [40]

### 4.989.1 Detailed Description

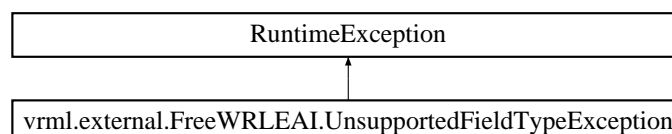
Definition at line 1774 of file CParseParser.c.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.c

## 4.990 vrml.external.FreeWRLEAI.UnsupportedFieldTypeException Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.UnsupportedFieldTypeException:



### Public Member Functions

- **UnsupportedFieldTypeException** (String str)

### 4.990.1 Detailed Description

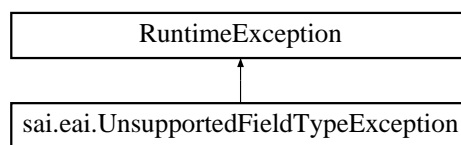
Definition at line 19 of file UnsupportedFieldTypeException.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/UnsupportedFieldTypeException.java

## 4.991 sai.eai.UnsupportedFieldTypeException Class Reference

Inheritance diagram for sai.eai.UnsupportedFieldTypeException:



### Public Member Functions

- **UnsupportedFieldTypeException** (String str)

### 4.991.1 Detailed Description

Definition at line 19 of file UnsupportedFieldTypeException.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/UnsupportedFieldTypeException.java

## 4.992 unz64\_file\_pos\_s Struct Reference

### Data Fields

- ZPOS64\_T **pos\_in\_zip\_directory**
- ZPOS64\_T **num\_of\_file**

### 4.992.1 Detailed Description

Definition at line 272 of file unzip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.h

## 4.993 unz64\_s Struct Reference

### Data Fields

- **zlib\_filefunc64\_32\_def** z\_filefunc
- int **is64bitOpenFunction**
- voidpf **filestream**
- **unz\_global\_info64** gi
- ZPOS64\_T **byte\_before\_the\_zipfile**
- ZPOS64\_T **num\_file**
- ZPOS64\_T **pos\_in\_central\_dir**
- ZPOS64\_T **current\_file\_ok**
- ZPOS64\_T **central\_pos**
- ZPOS64\_T **size\_central\_dir**
- ZPOS64\_T **offset\_central\_dir**
- **unz\_file\_info64** cur\_file\_info
- **unz\_file\_info64\_internal** cur\_file\_info\_internal
- **file\_in\_zip64\_read\_info\_s** \* pfile\_in\_zip\_read
- int **encrypted**
- int **isZip64**

### 4.993.1 Detailed Description

Definition at line 165 of file unzip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.c

## 4.994 unz\_file\_info64\_internal\_s Struct Reference

### Data Fields

- ZPOS64\_T **offset\_curfile**

### 4.994.1 Detailed Description

Definition at line 126 of file unzip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.c

## 4.995 unz\_file\_info64\_s Struct Reference

### Data Fields

- uLong **version**
- uLong **version\_needed**
- uLong **flag**
- uLong **compression\_method**
- uLong **dosDate**
- uLong **crc**
- ZPOS64\_T **compressed\_size**
- ZPOS64\_T **uncompressed\_size**
- uLong **size\_filename**
- uLong **size\_file\_extra**
- uLong **size\_file\_comment**
- uLong **disk\_num\_start**
- uLong **internal\_fa**
- uLong **external\_fa**
- **tm\_unz** **tmu\_date**

### 4.995.1 Detailed Description

Definition at line 111 of file unzip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.h

## 4.996 unz\_file\_info\_s Struct Reference

### Data Fields

- uLong **version**
- uLong **version\_needed**
- uLong **flag**
- uLong **compression\_method**
- uLong **dosDate**
- uLong **crc**
- uLong **compressed\_size**
- uLong **uncompressed\_size**
- uLong **size\_filename**
- uLong **size\_file\_extra**
- uLong **size\_file\_comment**
- uLong **disk\_num\_start**
- uLong **internal\_fa**
- uLong **external\_fa**
- **tm\_unz** **tmu\_date**

### 4.996.1 Detailed Description

Definition at line 132 of file unzip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.h

## 4.997 unz\_file\_pos\_s Struct Reference

### Data Fields

- uLong **pos\_in\_zip\_directory**
- uLong **num\_of\_file**

### 4.997.1 Detailed Description

Definition at line 258 of file unzip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.h

## 4.998 unz\_global\_info64\_s Struct Reference

### Data Fields

- ZPOS64\_T **number\_entry**
- uLong **size\_comment**

### 4.998.1 Detailed Description

Definition at line 96 of file unzip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.h

## 4.999 unz\_global\_info\_s Struct Reference

### Data Fields

- uLong **number\_entry**
- uLong **size\_comment**



### 4.999.1 Detailed Description

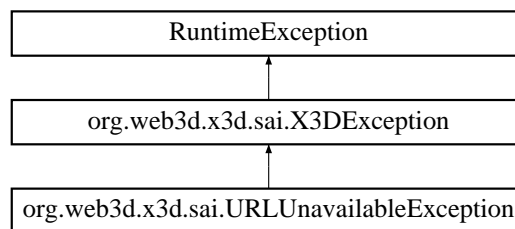
Definition at line 103 of file unzip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/unzip.h

## 4.1000 org.web3d.x3d.sai.URLUnavailableException Class Reference

Inheritance diagram for org.web3d.x3d.sai.URLUnavailableException:



### Public Member Functions

- **URLUnavailableException** (String msg)

### 4.1000.1 Detailed Description

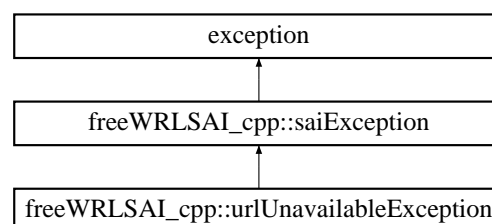
Definition at line 3 of file URLUnavailableException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/URLUnavailableException.java

## 4.1001 freeWRLSAI\_cpp::urlUnavailableException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::urlUnavailableException:



## Public Member Functions

- virtual const char \* **what** ()

## Additional Inherited Members

### 4.1001.1 Detailed Description

Definition at line 240 of file SAException.h.

The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAException.h

## 4.1002 usehit Struct Reference

### Data Fields

- struct **X3D\_Node** \* **node**
- double **mvm** [16]
- void \* **userdata**

### 4.1002.1 Detailed Description

Definition at line 83 of file RenderFuncs.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/RenderFuncs.h

## 4.1003 VariableDatum Struct Reference

### Data Fields

- unsigned int **variableDatumID**  
*ID of the variable datum.*
- unsigned int **variableDatumLength**  
*length of the variable datums*
- void \* **variableDatums**  
*variable length list of 64-bit datums*

### 4.1003.1 Detailed Description

Definition at line 615 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.1004 Varray Class Reference

### Public Member Functions

- long **init** (REAL, **Arc** \*, **Arc** \*)

### Data Fields

- REAL \* **varray**
- REAL **vval** [1000]
- long **voffset** [1000]
- long **numquads**

### 4.1004.1 Detailed Description

Definition at line 43 of file varray.h.

The documentation for this class was generated from the following files:

- src/libnurbs/internals/varray.h
- src/libnurbs/internals/varray.cc

## 4.1005 vec2 Struct Reference

### Data Fields

- float **X**
- float **Y**

### 4.1005.1 Detailed Description

Definition at line 2298 of file Component\_Text.c.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Component\_Text.c

## 4.1006 vec4 Struct Reference

### Data Fields

- float **X**
- float **Y**
- float **Z**
- float **W**

### 4.1006.1 Detailed Description

Definition at line 728 of file MainLoop.c.

The documentation for this struct was generated from the following files:

- src/lib/main/MainLoop.c
- src/lib/scenegraph/Component\_Text.c

## 4.1007 Vector Struct Reference

### Data Fields

- int **n**
- int **allocn**
- void \* **data**

### 4.1007.1 Detailed Description

Definition at line 36 of file Vector.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Vector.h

## 4.1008 Vector3Double Struct Reference

### Data Fields

- double **x**  
*X value.*
- double **y**  
*Y value.*
- double **z**  
*Z value.*

### 4.1008.1 Detailed Description

Definition at line 587 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.1009 Vector3Float Struct Reference

### Data Fields

- float **x**  
*X value.*
- float **y**  
*y Value*
- float **z**  
*Z value.*

### 4.1009.1 Detailed Description

Definition at line 328 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.1010 VectoringNozzleSystemData Struct Reference

### Data Fields

- float **horizontalDeflectionAngle**  
*horizontal deflection angle*
- float **verticalDeflectionAngle**  
*vertical deflection angle*

### 4.1010.1 Detailed Description

Definition at line 232 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.1011 vertexArray Class Reference

### Public Member Functions

- **vertexArray** (Int s)
- **vertexArray** (Real vertices[][2], Int nVertices)
- void **appendVertex** (Real \*ptr)
- Real \* **getVertex** (Int i)
- Real \*\* **getArray** ()
- Int **getNumElements** ()
- Int **findIndexAbove** (Real v)
- Int **findIndexAboveGen** (Real v, Int startIndex, Int endIndex)
- Int **findIndexBelowGen** (Real v, Int startIndex, Int endIndex)
- Int **findIndexStrictBelowGen** (Real v, Int startIndex, Int endIndex)
- Int **findIndexFirstAboveEqualGen** (Real v, Int startIndex, Int endIndex)
- Int **skipEqualityFromStart** (Real v, Int start, Int end)
- Int **findDecreaseChainFromEnd** (Int begin, Int end)
- void **print** ()

### 4.1011.1 Detailed Description

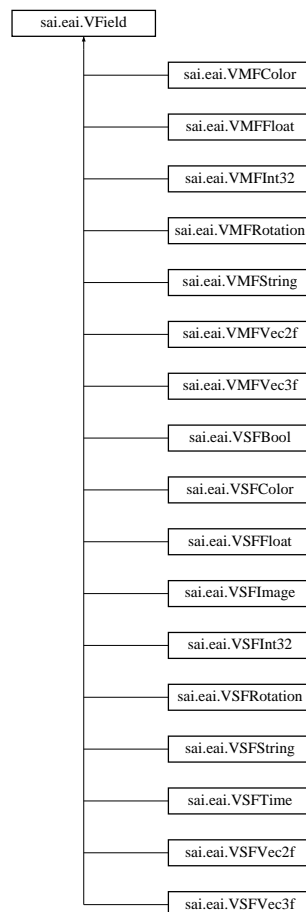
Definition at line 77 of file monoTriangulation.h.

The documentation for this class was generated from the following files:

- src/libnurbs/nurbtess/monoTriangulation.h
- src/libnurbs/nurbtess/monoTriangulation.cc

## 4.1012 sai.eai.VField Class Reference

Inheritance diagram for sai.eai.VField:



## Public Member Functions

- byte **getType** ()
- abstract void **write** (DataOutputStream out) throws IOException

## Static Public Attributes

- static final byte **NOTHING** = -1
- static final byte **SFBOOL** = 0
- static final byte **SFCOLOR** = 1
- static final byte **SFFLOAT** = 2
- static final byte **SFIMAGE** = 3
- static final byte **SFINT32** = 4
- static final byte **SFNODE** = 5
- static final byte **SFROTATION** = 6
- static final byte **SFSTRING** = 7
- static final byte **SFTIME** = 8
- static final byte **SFVEC2F** = 9
- static final byte **SFVEC3F** = 10
- static final byte **MFCOLOR** = 11
- static final byte **MFFLOAT** = 12
- static final byte **MFINT32** = 13
- static final byte **MFNODE** = 14
- static final byte **MFROTATION** = 15
- static final byte **MFSTRING** = 16
- static final byte **MFVEC2F** = 17
- static final byte **MFVEC3F** = 18

### 4.1012.1 Detailed Description

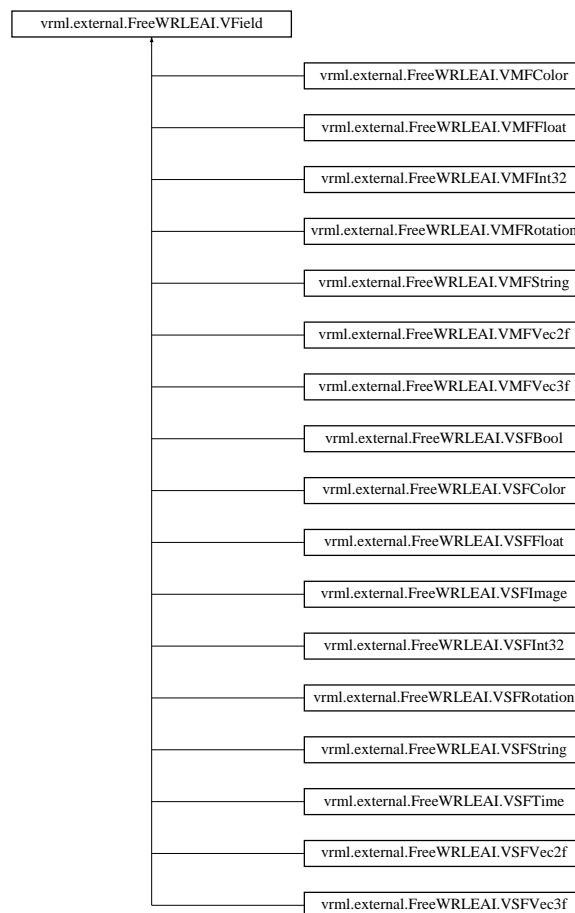
Definition at line 24 of file VField.java.

The documentation for this class was generated from the following file:

- `src/java/sai/eai/VField.java`

### 4.1013 vrml.external.FreeWRLEAI.VField Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VField:



### Public Member Functions

- byte **getType** ()
- abstract void **write** (DataOutputStream out) throws IOException



## Static Public Attributes

- static final byte **NOTHING** = -1
- static final byte **SFBOOL** = 0
- static final byte **SFCOLOR** = 1
- static final byte **SFFLOAT** = 2
- static final byte **SFIMAGE** = 3
- static final byte **SFINT32** = 4
- static final byte **SFNODE** = 5
- static final byte **SFROTATION** = 6
- static final byte **SFSTRING** = 7
- static final byte **SFTIME** = 8
- static final byte **SFVEC2F** = 9
- static final byte **SFVEC3F** = 10
- static final byte **MFCOLOR** = 11
- static final byte **MFFLOAT** = 12
- static final byte **MFINT32** = 13
- static final byte **MFNODE** = 14
- static final byte **MFROTATION** = 15
- static final byte **MFSTRING** = 16
- static final byte **MFVEC2F** = 17
- static final byte **MFVEC3F** = 18

### 4.1013.1 Detailed Description

Definition at line 24 of file VField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VField.java

## 4.1014 vid\_stream Struct Reference

### Data Fields

- unsigned int **h\_size**
- unsigned int **v\_size**
- unsigned int **mb\_height**
- unsigned int **mb\_width**
- unsigned char **aspect\_ratio**
- unsigned char **picture\_rate**
- unsigned int **bit\_rate**
- unsigned int **vbv\_buffer\_size**
- int **const\_param\_flag**
- unsigned char **intra\_quant\_matrix** [8][8]
- unsigned char **non\_intra\_quant\_matrix** [8][8]
- char \* **ext\_data**
- char \* **user\_data**
- **GoP** group
- **Pict** picture
- **Slice** slice

- **Macroblock mblock**
- **Block block**
- int **state**
- int **bit\_offset**
- unsigned int \* **buffer**
- int **buf\_length**
- unsigned int \* **buf\_start**
- int **max\_buf\_length**
- int **film\_has\_ended**
- int **sys\_layer**
- unsigned int **num\_left**
- unsigned int **leftover\_bytes**
- int **EOF\_flag**
- FILE \* **input**
- long **seekValue**
- int **swap**
- int **Parse\_done**
- int **gAudioStreamID**
- int **gVideoStreamID**
- int **gReservedStreamID**
- int **right\_for**
- int **down\_for**
- int **right\_half\_for**
- int **down\_half\_for**
- unsigned int **curBits**
- int **matched\_depth**
- char \* **filename**
- int **ditherType**
- char \* **ditherFlags**
- int **totNumFrames**
- double **realTimeStart**
- **PictImage** \* **past**
- **PictImage** \* **future**
- **PictImage** \* **current**
- **PictImage** \* **ring** [RING\_BUF\_SIZE]
- int **ppm\_width**
- int **ppm\_height**
- int **ppm\_modulus**

#### 4.1014.1 Detailed Description

Definition at line 191 of file mpeg\_berkley.h.

The documentation for this struct was generated from the following file:

- src/lib/scenagraph/mpeg\_berkley.h

## 4.1015 viewer Struct Reference

### Data Fields

- struct **point\_XYZ** **currentPosInModel**
- struct **point\_XYZ** **Pos**
- **Quaternion** **Quat**
- struct **point\_XYZ** **Pos0**
- **Quaternion** **Quat0**
- struct **point\_XYZ** **Up**
- int **headlight**
- int **collision**
- double **speed**
- double **Dist**
- int **isStereo**
- int **isStereoB**
- int **iside**
- int **isideB**
- int **sidebyside**
- int **updown**
- int **updownB**
- int **shutterGlasses**
- int **haveQuadbuffer**
- int **anaglyph**
- int **anaglyphB**
- int **dominantEye**
- int **eitherDominantEye**
- double **stereoParameter**
- double **eyehalf**
- double **eyehalfangle**
- double **screendist**
- double **eyedist**
- int **iprogram** [2]
- unsigned int **buffer**
- int **oktypes** [18]
- **X3D\_Viewer\_Walk** **walk**
- **X3D\_Viewer\_Examine** **examine**
- **X3D\_Viewer\_Fly** **fly**
- **X3D\_Viewer\_Spherical** **ypz**
- **X3D\_Viewer\_InPlane** **inplane**
- struct **point\_XYZ** **VPvelocity**
- int **SLERPing2**
- int **SLERPing2justStarted**
- int **SLERPing**
- double **startSLERPtime**
- int **SLERPing3**
- int **type**
- int **lastType**
- int **LookatMode**
- int **transitionType**
- double **transitionTime**
- double **lasttime**
- struct **point\_XYZ** **startSLERPPos**
- **Quaternion** **startSLERPQuat**

- double **startSLERPDist**
- double **endSLERPDist**
- struct **point\_XYZ** **endSLERPPos**
- **Quaternion** **endSLERPQuat**
- double **slerp\_viewmatrix** [16]
- double **slerp\_posorimatrix** [16]
- int **vp2rnSaved**
- int **doExamineModeDistanceCalculations**
- int **ortho**
- double **orthoField** [4]
- int **screenOrientation**
- double **nearPlane**
- double **farPlane**
- double **xcenter**
- double **backgroundPlane**
- GLDOUBLE **fieldofview**
- GLDOUBLE **fovZoom**
- int **wasBound**

#### 4.1015.1 Detailed Description

Definition at line 162 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

### 4.1016 viewer\_examine Struct Reference

#### Data Fields

- struct **point\_XYZ** **Origin**
- **Quaternion** **OQuat**
- **Quaternion** **SQuat**
- double **ODist**
- double **SY**

#### 4.1016.1 Detailed Description

Definition at line 118 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

## 4.1017 viewer\_fly Struct Reference

### Data Fields

- double **Velocity** [2][3]
- **KeyHit down** [2][3]
- int **ndown** [2][3]
- **KeyHit wasDown** [2][3][10]
- double **lasttime**

### 4.1017.1 Detailed Description

Definition at line 152 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

## 4.1018 viewer\_inplane Struct Reference

### Data Fields

- double **x**
- double **y**
- double **xx**
- double **yy**
- int **on**
- int **ibut**

### 4.1018.1 Detailed Description

Definition at line 132 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

## 4.1019 viewer\_walk Struct Reference

### Data Fields

- double **SX**
- double **SY**
- double **XD**
- double **YD**
- double **ZD**
- double **RD**

### 4.1019.1 Detailed Description

Definition at line 108 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

## 4.1020 viewer\_ypz Struct Reference

### Data Fields

- double **ypz0** [3]
- double **ypz** [3]
- float **x**
- float **y**

### 4.1020.1 Detailed Description

Definition at line 126 of file Viewer.h.

The documentation for this struct was generated from the following file:

- src/lib/scenegraph/Viewer.h

## 4.1021 sai.eai.VIP Class Reference

### Static Public Member Functions

- static String **fieldName** (short value)

### Static Public Attributes

- static final short **QUIT** = -1
- static final short **MESSAGE** = -2
- static final short **ADD\_OBJECT** = -3
- static final short **REMOVE\_OBJECT** = -4
- static final short **PRIVATE\_MESSAGE** = -5
- static final short **CREATE\_OBJECT** = -6
- static final short **USER\_INFO** = -7
- static final short **SELF\_INFO** = -8
- static final short **SSRC** = -9
- static final short **TRANSFERREQUEST** = -10
- static final short **TRANSFERACCEPT** = -11
- static final short **TRANSFERREJECT** = -12
- static final short **TRANSFERREQUESTADD** = -13
- static final short **FILERREQUEST** = -14

- static final short **FRQRESPONSE** = -15
- static final short **POSITION** = 0
- static final short **ORIENTATION** = 1
- static final short **SCALE** = 2
- static final short **NAME** = 3
- static final short **OWNER** = 4
- static final short **PARENT** = 5
- static final short **CHILDREN** = 6
- static final short **DROPPED** = 7
- static final short **NUM\_FIELDS** = 4
- static final short **MAX\_GESTURES** = 10
- static final short **MAX\_CHILDREN** = 50

### 4.1021.1 Detailed Description

Definition at line 19 of file VIP.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VIP.java

## 4.1022 vrml.external.FreeWRLEAI.VIP Class Reference

### Static Public Member Functions

- static String **fieldName** (short value)

### Static Public Attributes

- static final short **QUIT** = -1
- static final short **MESSAGE** = -2
- static final short **ADD\_OBJECT** = -3
- static final short **REMOVE\_OBJECT** = -4
- static final short **PRIVATE\_MESSAGE** = -5
- static final short **CREATE\_OBJECT** = -6
- static final short **USER\_INFO** = -7
- static final short **SELF\_INFO** = -8
- static final short **SSRC** = -9
- static final short **TRANSFERREQUEST** = -10
- static final short **TRANSFERACCEPT** = -11
- static final short **TRANSFERREJECT** = -12
- static final short **TRANSFERREQUESTADD** = -13
- static final short **FILEREQUEST** = -14
- static final short **FRQRESPONSE** = -15
- static final short **POSITION** = 0
- static final short **ORIENTATION** = 1
- static final short **SCALE** = 2
- static final short **NAME** = 3
- static final short **OWNER** = 4
- static final short **PARENT** = 5
- static final short **CHILDREN** = 6
- static final short **DROPPED** = 7
- static final short **NUM\_FIELDS** = 4
- static final short **MAX\_GESTURES** = 10
- static final short **MAX\_CHILDREN** = 50

### 4.1022.1 Detailed Description

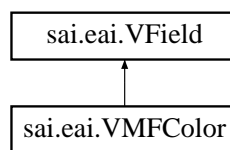
Definition at line 19 of file VIP.java.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/FreeWRLEAI/VIP.java`

## 4.1023 sai.eai.VMFCOLOR Class Reference

Inheritance diagram for `sai.eai.VMFCOLOR`:



### Public Member Functions

- **VMFCOLOR** (`DataStream in`) throws `IOException`
- void **write** (`DataOutputStream out`) throws `IOException`
- byte **getType** ()

### Additional Inherited Members

### 4.1023.1 Detailed Description

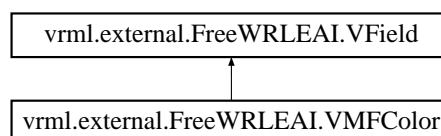
Definition at line 21 of file `VMFCOLOR.java`.

The documentation for this class was generated from the following file:

- `src/java/sai/eai/VMFCOLOR.java`

## 4.1024 vrml.external.FreeWRLEAI.VMFCOLOR Class Reference

Inheritance diagram for `vrml.external.FreeWRLEAI.VMFCOLOR`:





## Public Member Functions

- **VMFColor** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1024.1 Detailed Description

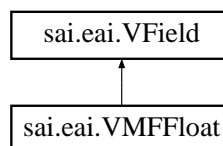
Definition at line 21 of file VMFColor.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VMFColor.java

## 4.1025 sai.eai.VMFFloat Class Reference

Inheritance diagram for sai.eai.VMFFloat:



## Public Member Functions

- **VMFFloat** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1025.1 Detailed Description

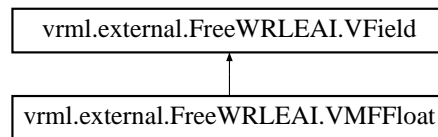
Definition at line 21 of file VMFFloat.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VMFFloat.java

## 4.1026 vrml.external.FreeWRLEAI.VMFFloat Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VMFFloat:



### Public Member Functions

- **VMFFloat** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

### Additional Inherited Members

#### 4.1026.1 Detailed Description

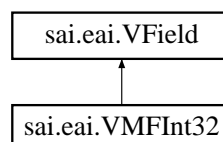
Definition at line 21 of file VMFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VMFFloat.java

## 4.1027 sai.eai.VMFIInt32 Class Reference

Inheritance diagram for sai.eai.VMFIInt32:



### Public Member Functions

- **VMFIInt32** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1027.1 Detailed Description

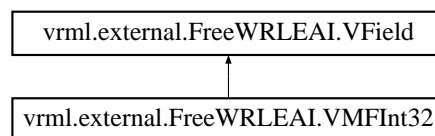
Definition at line 21 of file VMField.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VMField.java

## 4.1028 vrml.external.FreeWRLEAI.VMField Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VMField:



## Public Member Functions

- **VMField** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1028.1 Detailed Description

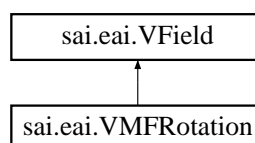
Definition at line 21 of file VMField.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VMField.java

## 4.1029 sai.eai.VMField Class Reference

Inheritance diagram for sai.eai.VMField:



## Public Member Functions

- **VMFRotation** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1029.1 Detailed Description

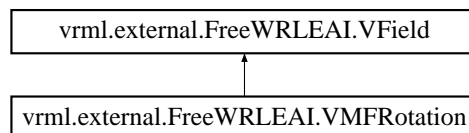
Definition at line 21 of file VMFRotation.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VMFRotation.java

## 4.1030 vrml.external.FreeWRLEAI.VMFRotation Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VMFRotation:



## Public Member Functions

- **VMFRotation** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1030.1 Detailed Description

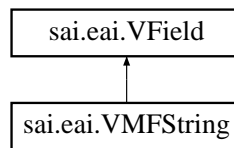
Definition at line 21 of file VMFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VMFRotation.java

## 4.1031 sai.eai.VMFString Class Reference

Inheritance diagram for sai.eai.VMFString:



### Public Member Functions

- **VMFString** (DataInputStream in) throws IOException
- **VMFString** (String[] strings)
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()
- String[] **getValue** ()
- String **get1Value** (int pos)
- String **toString** ()

### Additional Inherited Members

#### 4.1031.1 Detailed Description

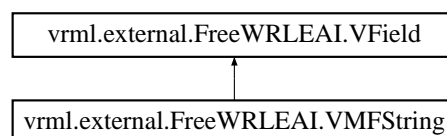
Definition at line 21 of file VMFString.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VMFString.java

## 4.1032 vrml.external.FreeWRLEAI.VMFString Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VMFString:



### Public Member Functions

- **VMFString** (DataInputStream in) throws IOException
- **VMFString** (String[] strings)
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()
- String[] **getValue** ()
- String **get1Value** (int pos)
- String **toString** ()

## Additional Inherited Members

### 4.1032.1 Detailed Description

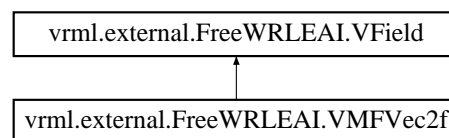
Definition at line 21 of file VMFString.java.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/FreeWRLEAI/VMFString.java`

## 4.1033 vrml.external.FreeWRLEAI.VMFVec2f Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VMFVec2f:



## Public Member Functions

- **VMFVec2f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1033.1 Detailed Description

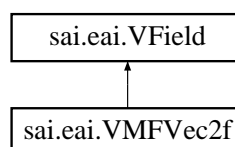
Definition at line 21 of file VMFVec2f.java.

The documentation for this class was generated from the following file:

- `src/java/vrml/external/FreeWRLEAI/VMFVec2f.java`

## 4.1034 sai.eai.VMFVec2f Class Reference

Inheritance diagram for sai.eai.VMFVec2f:



## Public Member Functions

- **VMFVec2f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1034.1 Detailed Description

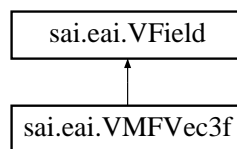
Definition at line 21 of file VMFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VMFVec2f.java

## 4.1035 sai.eai.VMFVec3f Class Reference

Inheritance diagram for sai.eai.VMFVec3f:



## Public Member Functions

- **VMFVec3f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1035.1 Detailed Description

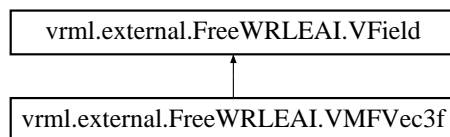
Definition at line 21 of file VMFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VMFVec3f.java

## 4.1036 vrml.external.FreeWRLEAI.VMFVec3f Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VMFVec3f:



### Public Member Functions

- **VMFVec3f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

### Additional Inherited Members

#### 4.1036.1 Detailed Description

Definition at line 21 of file VMFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VMFVec3f.java

## 4.1037 void3 Struct Reference

### Data Fields

- void \* **one**
- void \* **two**
- void \* **three**

#### 4.1037.1 Detailed Description

Definition at line 695 of file headers.h.

The documentation for this struct was generated from the following file:

- src/lib/main/headers.h



## 4.1038 VRMLLexer Struct Reference

### Data Fields

- char \* **nextIn**
- char \* **startOfStringPtr** [LEXER\_INPUT\_STACK\_MAX]
- char \* **curlID**
- BOOL **isEof**
- int **lexerInputLevel**
- char \* **oldNextIn** [LEXER\_INPUT\_STACK\_MAX]
- **Stack** \* **userNodeNames**
- struct **Vector** \* **userNodeTypesVec**
- **Stack** \* **userNodeTypesStack**
- struct **Vector** \* **user\_initializeOnly**
- struct **Vector** \* **user\_inputOutput**
- struct **Vector** \* **user\_inputOnly**
- struct **Vector** \* **user\_outputOnly**

### 4.1038.1 Detailed Description

Definition at line 50 of file CParseLexer.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseLexer.h

## 4.1039 sai.eai.VRMLObject Class Reference

### Public Member Functions

- **VRMLObject** (int id, String URL, **VRMLObjectObserver** observer)
- String[] **getFieldNames** ()
- **VField** **getField** (short field)
- void **setName** (String name)
- void **setField** (short field, **VField** value)
- String **toString** ()
- void **load** ()

### Data Fields

- int **id**
- String **URL**
- **VRMLObject** **next**
- String[] **gestures**
- boolean **loaded** = false

### Protected Member Functions

- void **doSetField** (short field, **VField** value)

## Protected Attributes

- String **name**
- String[] **fieldNames**
- **VRMLObjectObserver** **observer**
- **VField**[] **fields**

### 4.1039.1 Detailed Description

Definition at line 23 of file VRMLObject.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VRMLObject.java

## 4.1040 vrml.external.FreeWRLEAI.VRMLObject Class Reference

### Public Member Functions

- **VRMLObject** (int id, String URL, **VRMLObjectObserver** observer)
- String[] **getFieldNames** ()
- **VField** **getField** (short field)
- void **setName** (String name)
- void **setField** (short field, **VField** value)
- String **toString** ()
- void **load** ()

### Data Fields

- int **id**
- String **URL**
- **VRMLObject** **next**
- String[] **gestures**
- boolean **loaded** = false

### Protected Member Functions

- void **doSetField** (short field, **VField** value)

## Protected Attributes

- String **name**
- String[] **fieldNames**
- **VRMLObjectObserver** **observer**
- **VField**[] **fields**

### 4.1040.1 Detailed Description

Definition at line 23 of file VRMLObject.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VRMLObject.java

## 4.1041 sai.eai.VRMLObjectObserver Interface Reference

### Public Member Functions

- void **onClicked** ( VRMLObject obj)
- void **onLoaded** ( VRMLObject obj)

### 4.1041.1 Detailed Description

Definition at line 19 of file VRMLObjectObserver.java.

The documentation for this interface was generated from the following file:

- src/java/sai/eai/VRMLObjectObserver.java

## 4.1042 vrml.external.FreeWRLEAI.VRMLObjectObserver Interface Reference

### Public Member Functions

- void **onClicked** ( VRMLObject obj)
- void **onLoaded** ( VRMLObject obj)

### 4.1042.1 Detailed Description

Definition at line 19 of file VRMLObjectObserver.java.

The documentation for this interface was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VRMLObjectObserver.java

## 4.1043 VRMLParser Struct Reference

### Data Fields

- struct **VRMLLexer** \* **lexer**
- void \* **ectx**
- void \* **ptr**
- unsigned **ofs**
- struct **ProtoDefinition** \* **curPROTO**
- **Stack** \* **DEFedNodes**
- struct **Vector** \* **PROTOs**
- int **parsingX3DfromXML**
- **Stack** \* **brotoDEFedNodes**

### 4.1043.1 Detailed Description

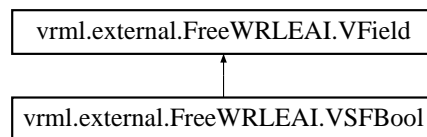
Definition at line 148 of file CParseParser.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/CParseParser.h

## 4.1044 vrml.external.FreeWRLEAI.VSFBool Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFBool:



### Public Member Functions

- **VSFBool** (boolean value)
- **VSFBool** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- boolean **getValue** ()
- byte **getType** ()

### Additional Inherited Members

### 4.1044.1 Detailed Description

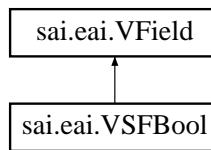
Definition at line 21 of file VSFBool.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFBool.java

## 4.1045 sai.eai.VSFBool Class Reference

Inheritance diagram for sai.eai.VSFBool:



### Public Member Functions

- **VSFBool** (boolean value)
- **VSFBool** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- boolean **getValue** ()
- byte **getType** ()

### Additional Inherited Members

#### 4.1045.1 Detailed Description

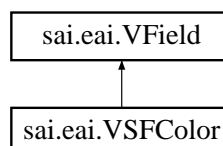
Definition at line 21 of file VSFBool.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFBool.java

## 4.1046 sai.eai.VSFColor Class Reference

Inheritance diagram for sai.eai.VSFColor:



### Public Member Functions

- **VSFColor** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1046.1 Detailed Description

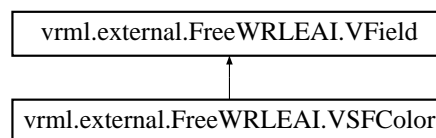
Definition at line 21 of file VSFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFColor.java

## 4.1047 vrml.external.FreeWRLEAI.VSFColor Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFColor:



## Public Member Functions

- **VSFColor** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1047.1 Detailed Description

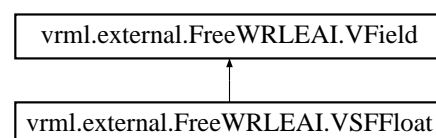
Definition at line 21 of file VSFCOLOR.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFColor.java

## 4.1048 vrml.external.FreeWRLEAI.VSFFloat Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFFloat:



## Public Member Functions

- **VSFFloat** (float value) throws IOException
- **VSFFloat** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1048.1 Detailed Description

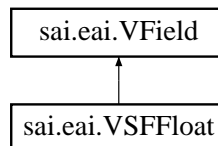
Definition at line 20 of file VSFFloat.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VsFFloat.java

## 4.1049 sai.eai.VSFFloat Class Reference

Inheritance diagram for sai.eai.VSFFloat:



## Public Member Functions

- **VSFFloat** (float value) throws IOException
- **VSFFloat** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1049.1 Detailed Description

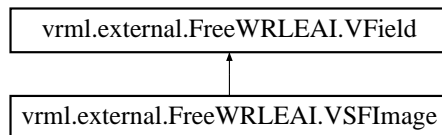
Definition at line 20 of file VSFFloat.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VsFFloat.java

## 4.1050 vrml.external.FreeWRLEAI.VSFIImage Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFIImage:



### Public Member Functions

- **VSFIImage** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

### Additional Inherited Members

#### 4.1050.1 Detailed Description

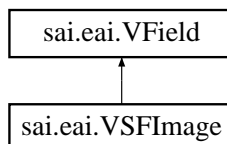
Definition at line 21 of file VSFIImage.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFIImage.java

## 4.1051 sai.eai.VSFIImage Class Reference

Inheritance diagram for sai.eai.VSFIImage:



### Public Member Functions

- **VSFIImage** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()



## Additional Inherited Members

### 4.1051.1 Detailed Description

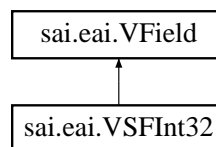
Definition at line 21 of file VSFImage.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFImage.java

## 4.1052 sai.eai.VSFInt32 Class Reference

Inheritance diagram for sai.eai.VSFInt32:



## Public Member Functions

- **VSFInt32** (DataInputStream in) throws IOException
- **VSFInt32** (int v)
- void **write** (DataOutputStream out) throws IOException
- int **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.1052.1 Detailed Description

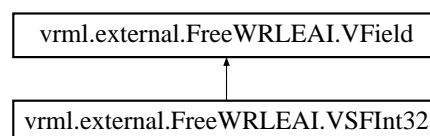
Definition at line 21 of file VSFInt32.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFInt32.java

## 4.1053 vrml.external.FreeWRLEAI.VSFInt32 Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFInt32:



## Public Member Functions

- **VSFInt32** (DataInputStream in) throws IOException
- **VSFInt32** (int v)
- void **write** (DataOutputStream out) throws IOException
- int **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.1053.1 Detailed Description

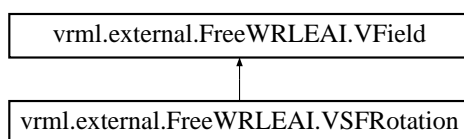
Definition at line 21 of file VSFInt32.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFInt32.java

## 4.1054 vrml.external.FreeWRLEAI.VSFRotation Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFRotation:



## Public Member Functions

- **VSFRotation** (float axisX, float axisY, float axisZ, float angle)
- **VSFRotation** (float[] values)
- **VSFRotation** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- String **toString** ()
- byte **getType** ()
- float[] **getValue** ()
- double **getAngle** ()

## Additional Inherited Members

### 4.1054.1 Detailed Description

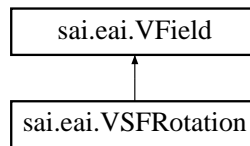
Definition at line 20 of file VSFRotation.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFRotation.java

## 4.1055 sai.eai.VSFRotation Class Reference

Inheritance diagram for sai.eai.VSFRotation:



### Public Member Functions

- **VSFRotation** (float axisX, float axisY, float axisZ, float angle)
- **VSFRotation** (float[] values)
- **VSFRotation** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- String **toString** ()
- byte **getType** ()
- float[] **getValue** ()
- double **getAngle** ()

### Additional Inherited Members

#### 4.1055.1 Detailed Description

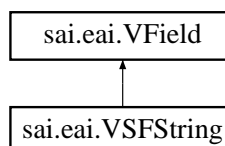
Definition at line 20 of file VSFRotation.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFRotation.java

## 4.1056 sai.eai.VSFString Class Reference

Inheritance diagram for sai.eai.VSFString:



### Public Member Functions

- **VSFString** (String s)
- **VSFString** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- String **toString** ()
- String **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.1056.1 Detailed Description

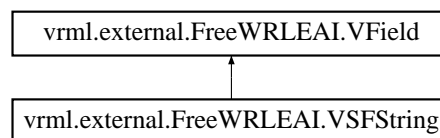
Definition at line 21 of file VSFString.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFString.java

## 4.1057 vrml.external.FreeWRLEAI.VSFString Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFString:



## Public Member Functions

- **VSFString** (String s)
- **VSFString** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- String **toString** ()
- String **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.1057.1 Detailed Description

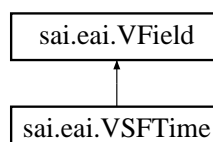
Definition at line 21 of file VSFString.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFString.java

## 4.1058 sai.eai.VSFTIME Class Reference

Inheritance diagram for sai.eai.VSFTIME:



## Public Member Functions

- **VSFTIME** (double time)
- **VSFTIME** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()
- double **getValue** ()

## Additional Inherited Members

### 4.1058.1 Detailed Description

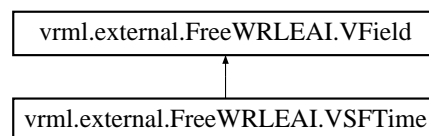
Definition at line 21 of file VSFTIME.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSTIME.java

## 4.1059 vrml.external.FreeWRLEAI.VSFTIME Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFTIME:



## Public Member Functions

- **VSFTIME** (double time)
- **VSFTIME** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()
- double **getValue** ()

## Additional Inherited Members

### 4.1059.1 Detailed Description

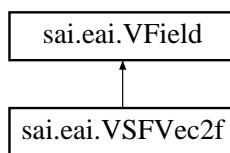
Definition at line 21 of file VSFTIME.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSTIME.java

## 4.1060 sai.eai.VSFVec2f Class Reference

Inheritance diagram for sai.eai.VSFVec2f:



### Public Member Functions

- **VSFVec2f** (float x, float y, float z)
- **VSFVec2f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

### Additional Inherited Members

#### 4.1060.1 Detailed Description

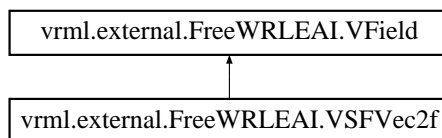
Definition at line 21 of file VSFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFVec2f.java

## 4.1061 vrml.external.FreeWRLEAI.VSFVec2f Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFVec2f:



### Public Member Functions

- **VSFVec2f** (float x, float y, float z)
- **VSFVec2f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.1061.1 Detailed Description

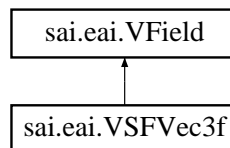
Definition at line 21 of file VSFVec2f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFVec2f.java

## 4.1062 sai.eai.VSFVec3f Class Reference

Inheritance diagram for sai.eai.VSFVec3f:



## Public Member Functions

- **VSFVec3f** (float x, float y, float z)
- **VSFVec3f** (float[] values)
- **VSFVec3f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- String **toString** ()
- byte **getType** ()
- float[] **getValue** ()
- **VSFVec3f plus** ( VSFVec3f v)
- **VSFVec3f minus** ( VSFVec3f v)
- **VSFVec3f times** (float s)
- double **getDistance** ( VSFVec3f v)
- double **getAngle** ( VSFVec3f v)

## Additional Inherited Members

### 4.1062.1 Detailed Description

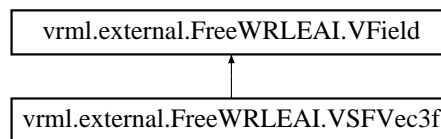
Definition at line 19 of file VSFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFVec3f.java

## 4.1063 vrml.external.FreeWRLEAI.VSFVec3f Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFVec3f:



### Public Member Functions

- **VSFVec3f** (float x, float y, float z)
- **VSFVec3f** (float[] values)
- **VSFVec3f** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- String **toString** ()
- byte **getType** ()
- float[] **getValue** ()
- **VSFVec3f plus** ( **VSFVec3f** v)
- **VSFVec3f minus** ( **VSFVec3f** v)
- **VSFVec3f times** (float s)
- double **getDistance** ( **VSFVec3f** v)
- double **getAngle** ( **VSFVec3f** v)

### Additional Inherited Members

#### 4.1063.1 Detailed Description

Definition at line 19 of file VSFVec3f.java.

The documentation for this class was generated from the following file:

- src/java/vrml/external/FreeWRLEAI/VSFVec3f.java

## 4.1064 walk\_cbdata Struct Reference

### Data Fields

- int(\* **fkey** )(const char \* **key**, int index, **cson\_value** \*val, void \*cbdata)
- int(\* **fval** )( **cson\_value** \*val, int index, void \*cbdata)
- void \* **data**
- void \* **arr**
- int **arrtype**



### 4.1064.1 Detailed Description

Definition at line 234 of file SSRServer.c.

The documentation for this struct was generated from the following file:

- src/SSR/SSRServer.c

## 4.1065 WarfareFamilyPdu Struct Reference

### Data Fields

- struct **Pdu** **myPdu**
- struct **EntityID** **firingEntityID**  
*ID of the entity that shot.*
- struct **EntityID** **targetEntityID**  
*ID of the entity that is being shot at.*

### 4.1065.1 Detailed Description

Definition at line 994 of file DIS.h.

The documentation for this struct was generated from the following file:

- src/lib/DIS/DIS.h

## 4.1066 WEB3DNATIVE Struct Reference

### Data Fields

- int **fieldType**
- union {  
    void \* **native**  
    union **anyVrml** \* **anyvrml**  
};
- int \* **valueChanged**
- int **kind**
- char **gc**

### 4.1066.1 Detailed Description

Definition at line 84 of file FWTYPE.h.

The documentation for this struct was generated from the following file:

- src/lib/world\_script/FWTYPE.h

## 4.1067 X3D\_Anchor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **Uni\_String** \* **description**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **parameter**
- struct **Multi\_String** **url**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- void \* **\_parentResource**

### 4.1067.1 Detailed Description

Definition at line 2679 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1068 X3D\_Appearance Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**

- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **fillProperties**
- struct **X3D\_Node** \* **lineProperties**
- struct **X3D\_Node** \* **material**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **shaders**
- struct **Multi\_Node** **effects**
- struct **X3D\_Node** \* **texture**
- struct **X3D\_Node** \* **textureTransform**

### 4.1068.1 Detailed Description

Definition at line 2708 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1069 X3D\_Arc2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- float **endAngle**
- float **radius**
- float **startAngle**
- struct **Multi\_Vec2f** **\_\_points**
- int **\_\_numPoints**

### 4.1069.1 Detailed Description

Definition at line 2734 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1070 X3D\_ArcClose2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **closureType**
- float **endAngle**
- float **radius**
- int **solid**
- float **startAngle**
- struct **Multi\_Vec2f** **\_\_points**
- struct **Multi\_Vec2f** **\_\_texCoords**
- int **\_\_numPoints**
- int **\_\_simpleDisk**
- void \* **\_\_wireindices**

### 4.1070.1 Detailed Description

Definition at line 2758 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1071 X3D\_AudioClip Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**

- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Uni\_String** \* **description**
- int **loop**
- struct **X3D\_Node** \* **metadata**
- double **pauseTime**
- float **pitch**
- double **resumeTime**
- double **startTime**
- double **stopTime**
- struct **Multi\_String** **url**
- double **duration\_changed**
- double **elapsedTime**
- int **isActive**
- int **isPaused**
- void \* **\_parentResource**
- int **\_\_loadstatus**
- void \* **\_\_loadResource**
- int **\_\_sourceNumber**
- double **\_\_inittime**
- double **\_\_lasttime**

#### 4.1071.1 Detailed Description

Definition at line 2787 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1072 X3D\_BackdropBackground Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_bind**
- double **bindTime**
- int **isBound**
- float **transparency**
- struct **SFColor** **color**
- struct **X3D\_Node** \* **metadata**
- int **\_\_texture**
- int **\_\_VBO**
- struct **Multi\_String** **url**

### 4.1072.1 Detailed Description

Definition at line 2824 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1073 X3D\_Background Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_bind**
- struct **Multi\_Float** **groundAngle**
- struct **Multi\_Color** **groundColor**
- struct **Multi\_Float** **skyAngle**
- struct **Multi\_Color** **skyColor**
- double **bindTime**
- int **isBound**
- int **\_layerId**
- void \* **\_parentResource**
- struct **Multi\_Vec3f** **\_\_points**
- struct **Multi\_Color** **\_\_colours**
- int **\_\_quadcount**
- float **transparency**
- struct **Multi\_String** **frontUrl**
- struct **Multi\_String** **backUrl**
- struct **Multi\_String** **topUrl**
- struct **Multi\_String** **bottomUrl**
- struct **Multi\_String** **leftUrl**
- struct **Multi\_String** **rightUrl**
- struct **X3D\_Node** \* **metadata**
- int **\_\_textureright**
- struct **X3D\_Node** \* **\_\_frontTexture**
- struct **X3D\_Node** \* **\_\_backTexture**
- struct **X3D\_Node** \* **\_\_topTexture**
- struct **X3D\_Node** \* **\_\_bottomTexture**
- struct **X3D\_Node** \* **\_\_leftTexture**
- struct **X3D\_Node** \* **\_\_rightTexture**
- int **\_\_VBO**

### 4.1073.1 Detailed Description

Definition at line 2851 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1074 X3D\_BallJoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **anchorPoint**
- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- struct **Multi\_String** **forceOutput**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **body1AnchorPoint**
- struct **SFVec3f** **body2AnchorPoint**
- void \* **\_joint**
- int **\_forceout**
- struct **SFVec3f** **\_\_old\_anchorPoint**
- struct **X3D\_Node** \* **\_\_old\_body1**
- struct **X3D\_Node** \* **\_\_old\_body2**

### 4.1074.1 Detailed Description

Definition at line 2897 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1075 X3D\_Billboard Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **SFVec3f** **axisOfRotation**
- struct **Multi\_Node** **children**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **X3D\_Node** \* **metadata**
- double **\_rotationAngle**

### 4.1075.1 Detailed Description

Definition at line 2927 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1076 X3D\_BlendedVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**



- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **surfaceNormals**
- struct **X3D\_Node** \* **renderStyle**
- struct **X3D\_Node** \* **voxels**
- float **weightConstant1**
- float **weightConstant2**
- struct **Uni\_String** \* **weightFunction1**
- struct **Uni\_String** \* **weightFunction2**
- struct **X3D\_Node** \* **weightTransferFunction1**
- struct **X3D\_Node** \* **weightTransferFunction2**
- struct **Multi\_Int32\_fbohandles**
- int **\_weightFunction1**
- int **\_weightFunction2**

### 4.1076.1 Detailed Description

Definition at line 2954 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1077 X3D\_BooleanFilter Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_boolean**
- int **inputFalse**
- int **inputNegate**
- int **inputTrue**
- struct **X3D\_Node** \* **metadata**

### 4.1077.1 Detailed Description

Definition at line 2986 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1078 X3D\_BooleanSequencer Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **next**
- int **previous**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Bool** **keyValue**
- int **value\_changed**
- struct **X3D\_Node** \* **metadata**
- int **\_index**

### 4.1078.1 Detailed Description

Definition at line 3009 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1079 X3D\_BooleanToggle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_boolean**
- int **toggle**
- struct **X3D\_Node** \* **metadata**

### 4.1079.1 Detailed Description

Definition at line 3035 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1080 X3D\_BooleanTrigger Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- double **set\_triggerTime**
- int **triggerTrue**
- struct **X3D\_Node** \* **metadata**

### 4.1080.1 Detailed Description

Definition at line 3056 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1081 X3D\_BoundaryEnhancementVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- float **boundaryOpacity**
- float **opacityFactor**
- float **retainedOpacity**

### 4.1081.1 Detailed Description

Definition at line 3077 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1082 X3D\_BoundedPhysicsModel Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **geometry**
- struct **X3D\_Node** \* **metadata**

### 4.1082.1 Detailed Description

Definition at line 3100 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1083 X3D\_Box Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **size**
- int **solid**
- struct **Multi\_Vec3f** **\_\_points**

### 4.1083.1 Detailed Description

Definition at line 3121 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1084 X3D\_CADAssembly Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1084.1 Detailed Description

Definition at line 3143 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1085 X3D\_CADFace Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **X3D\_Node** \* **shape**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

### 4.1085.1 Detailed Description

Definition at line 3170 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1086 X3D\_CADLayer Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Multi\_Bool** **visible**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

### 4.1086.1 Detailed Description

Definition at line 3193 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1087 X3D\_CADPart Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **SFVec3f** **center**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **scale**
- struct **SFRotation** **scaleOrientation**
- struct **SFVec3f** **translation**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_\_do\_center**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- int **\_\_do\_scaleO**
- int **\_\_do\_scale**
- int **\_\_do\_anything**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1087.1 Detailed Description

Definition at line 3220 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1088 X3D\_CalibratedCameraSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **isActive**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **description**
- struct **Multi\_Int32** **image**
- struct **SFVec2f** **focalPoint**
- float **fieldOfView**
- struct **Uni\_String** \* **fovMode**
- float **aspectRatio**

### 4.1088.1 Detailed Description

Definition at line 3258 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1089 X3D\_CartoonVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **surfaceNormals**
- struct **SFColorRGBA** **orthogonalColor**
- struct **SFColorRGBA** **parallelColor**
- int **colorSteps**

### 4.1089.1 Detailed Description

Definition at line 3285 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1090 X3D\_Circle2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- float **radius**
- struct **Multi\_Vec2f** **\_\_points**
- int **\_\_numPoints**

### 4.1090.1 Detailed Description

Definition at line 3309 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1091 X3D\_ClipPlane Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec4f** **plane**

### 4.1091.1 Detailed Description

Definition at line 3331 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1092 X3D\_CollidableOffset Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **translation**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- struct **X3D\_Node** \* **collidable**
- void \* **\_geom**
- struct **SFRotation** **\_initialRotation**
- struct **SFVec3f** **\_initialTranslation**
- int **\_initialized**
- void \* **\_csensor**

### 4.1092.1 Detailed Description

Definition at line 3352 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1093 X3D\_CollidableShape Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **translation**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- struct **X3D\_Node** \* **shape**
- void \* **\_geom**
- struct **SFRotation** **\_initialRotation**
- struct **SFVec3f** **\_initialTranslation**
- int **\_initialized**
- void \* **\_csensor**

### 4.1093.1 Detailed Description

Definition at line 3384 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1094 X3D\_Collision Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**

- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- int **enabled**
- int **collide**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **X3D\_Node** \* **proxy**
- double **collideTime**
- struct **X3D\_Node** \* **metadata**
- int **\_\_hit**

#### 4.1094.1 Detailed Description

Definition at line 3416 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1095 X3D\_CollisionCollection Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_String** **appliedParameters**
- float **bounce**
- struct **Multi\_Node** **collidables**
- int **enabled**
- struct **SFVec2f** **frictionCoefficients**
- struct **X3D\_Node** \* **metadata**

- float **minBounceSpeed**
- struct **SFVec2f** **slipFactors**
- float **softnessConstantForceMix**
- float **softnessErrorCorrection**
- struct **SFVec2f** **surfaceSpeed**
- void \* **\_class**
- void \* **\_csensor**
- int **\_appliedParametersMask**

#### 4.1095.1 Detailed Description

Definition at line 3446 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1096 X3D\_CollisionSensor Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **collider**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **intersections**
- struct **Multi\_Node** **contacts**
- int **isActive**

#### 4.1096.1 Detailed Description

Definition at line 3478 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1097 X3D\_CollisionSpace Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **collidables**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- int **useGeometry**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- void \* **\_space**

### 4.1097.1 Detailed Description

Definition at line 3502 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1098 X3D\_Color Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Color** **color**
- struct **X3D\_Node** \* **metadata**

### 4.1098.1 Detailed Description

Definition at line 3527 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1099 X3D\_ColorChaser Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**
- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- struct **SFColor** **value\_changed**
- struct **SFColor** **initialDestination**
- struct **SFColor** **initialValue**
- struct **SFColor** **set\_destination**
- struct **SFColor** **set\_value**
- void \* **\_buffer**
- struct **SFColor** **\_previousvalue**
- struct **SFColor** **\_destination**

### 4.1099.1 Detailed Description

Definition at line 3547 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1100 X3D\_ColorDamper Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**
- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- struct **SFColor** **value\_changed**
- struct **SFColor** **initialDestination**
- struct **SFColor** **initialValue**
- struct **SFColor** **set\_destination**
- struct **SFColor** **set\_value**
- void \* **\_values**
- struct **SFColor** **\_input**

### 4.1100.1 Detailed Description

Definition at line 3580 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1101 X3D\_ColorInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Color** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **SFColor** **value\_changed**

### 4.1101.1 Detailed Description

Definition at line 3615 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1102 X3D\_ColorRGBA Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_ColorRGBA** **color**
- struct **X3D\_Node** \* **metadata**

### 4.1102.1 Detailed Description

Definition at line 3638 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1103 X3D\_ComposedCubeMapTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **back**
- struct **X3D\_Node** \* **bottom**
- struct **X3D\_Node** \* **front**
- struct **X3D\_Node** \* **left**
- struct **X3D\_Node** \* **top**
- struct **X3D\_Node** \* **right**
- void \* **\_parentResource**

### 4.1103.1 Detailed Description

Definition at line 3658 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1104 X3D\_ComposedShader Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **activate**
- struct **Multi\_Node** parts
- int **isSelected**
- int **isValid**
- struct **Uni\_String** \* **language**
- struct **X3D\_Node** \* **metadata**
- int **\_initialized**
- struct **X3D\_Node** \* **\_shaderUserDefinedFields**
- int **\_shaderUserNumber**
- pthread\_t **\_shaderLoadThread**
- int **\_retrievedURLData**

### 4.1104.1 Detailed Description

Definition at line 3684 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1105 X3D\_ComposedTexture3D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**

- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **texture**
- struct **X3D\_Node** \* **textureProperties**
- int **repeatS**
- int **repeatT**
- int **repeatR**
- int **\_\_textureTableIndex**
- void \* **\_parentResource**

### 4.1105.1 Detailed Description

Definition at line 3713 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1106 X3D\_ComposedVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **renderStyle**

### 4.1106.1 Detailed Description

Definition at line 3739 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1107 X3D\_CompositeVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **renderStyle**

### 4.1107.1 Detailed Description

Definition at line 3760 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1108 X3D\_Cone Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- int **bottom**
- float **bottomRadius**
- float **height**
- int **side**
- int **solid**
- struct **Multi\_Vec3f** **\_\_sidepoints**
- struct **Multi\_Vec3f** **\_\_botpoints**
- struct **Multi\_Vec3f** **\_\_normals**
- int **\_\_coneVBO**
- int **\_\_coneTriangles**
- void \* **\_\_wireindices**

### 4.1108.1 Detailed Description

Definition at line 3781 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1109 X3D\_ConeEmitter Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **angle**
- struct **SFVec3f** **direction**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **position**
- float **speed**
- float **variation**
- float **mass**
- float **surfaceArea**

### 4.1109.1 Detailed Description

Definition at line 3811 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1110 X3D\_Contact Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_String** **appliedParameters**
- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- float **bounce**
- struct **SFVec3f** **contactNormal**
- float **depth**
- struct **SFVec2f** **frictionCoefficients**
- struct **SFVec3f** **frictionDirection**
- struct **X3D\_Node** \* **geometry1**
- struct **X3D\_Node** \* **geometry2**
- struct **X3D\_Node** \* **metadata**
- float **minBounceSpeed**
- struct **SFVec3f** **position**
- struct **SFVec2f** **slipCoefficients**
- float **softnessConstantForceMix**
- float **softnessErrorCorrection**
- struct **SFVec2f** **surfaceSpeed**
- int **\_appliedParameters**

### 4.1110.1 Detailed Description

Definition at line 3837 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1111 X3D\_Contour2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**

### 4.1111.1 Detailed Description

Definition at line 3873 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1112 X3D\_ContourPolyline2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2d** **controlPoint**
- struct **Multi\_Vec2f** **point**

### 4.1112.1 Detailed Description

Definition at line 3896 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1113 X3D\_Coordinate Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec3f** **point**
- struct **X3D\_Node** \* **metadata**

### 4.1113.1 Detailed Description

Definition at line 3917 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1114 X3D\_CoordinateChaser Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]

- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**
- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- struct **Multi\_Vec3f** **value\_changed**
- struct **Multi\_Vec3f** **initialDestination**
- struct **Multi\_Vec3f** **initialValue**
- struct **Multi\_Vec3f** **set\_destination**
- struct **Multi\_Vec3f** **set\_value**
- void \* **\_buffer**
- struct **Multi\_Vec3f** **\_previousvalue**
- struct **Multi\_Vec3f** **\_destination**

#### 4.1114.1 Detailed Description

Definition at line 3937 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1115 X3D\_CoordinateDamper Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**

- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- struct **Multi\_Vec3f** **value\_changed**
- struct **Multi\_Vec3f** **initialDestination**
- struct **Multi\_Vec3f** **initialValue**
- struct **Multi\_Vec3f** **set\_destination**
- struct **Multi\_Vec3f** **set\_value**
- void \* **\_values**
- struct **Multi\_Vec3f** **\_input**

#### 4.1115.1 Detailed Description

Definition at line 3970 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1116 X3D\_CoordinateDouble Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec3d** **point**

#### 4.1116.1 Detailed Description

Definition at line 4005 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1117 X3D\_CoordinateInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec3f** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec3f** **value\_changed**
- int **\_GPU\_Routes\_out**
- int **\_CPU\_Routes\_out**
- int **\_keyVBO**
- int **\_keyValueVBO**

### 4.1117.1 Detailed Description

Definition at line 4025 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1118 X3D\_CoordinateInterpolator2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec2f** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2f** **value\_changed**

### 4.1118.1 Detailed Description

Definition at line 4052 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1119 X3D\_Cylinder Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- int **bottom**
- float **height**
- float **radius**
- int **side**
- int **solid**
- int **top**
- struct **Multi\_Vec3f** **\_\_points**
- struct **Multi\_Vec3f** **\_\_normals**
- int **\_\_cylinderVBO**
- int **\_\_cylinderTriangles**
- void \* **\_\_wireindices**

### 4.1119.1 Detailed Description

Definition at line 4075 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1120 X3D\_CylinderSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **autoOffset**
- struct **SFRotation** **axisRotation**
- float **diskAngle**
- int **enabled**
- float **maxAngle**
- float **minAngle**
- float **offset**
- int **isActive**
- int **isOver**
- struct **Uni\_String** \* **description**
- struct **SFRotation** **rotation\_changed**
- struct **SFVec3f** **trackPoint\_changed**
- struct **X3D\_Node** \* **metadata**
- int **sensorLocalOutput**
- struct **SFVec3f** **\_oldtrackPoint**
- struct **SFRotation** **\_oldrotation**
- struct **SFVec3f** **\_origPoint**
- float **\_radius**
- int **\_usingDisk**
- int **\_\_oldEnabled**

### 4.1120.1 Detailed Description

Definition at line 4105 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1121 X3D\_DirectionalLight Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **ambientIntensity**
- struct **SFColor** **color**
- struct **SFVec3f** **direction**
- int **global**
- float **intensity**
- struct **X3D\_Node** \* **metadata**
- int **on**
- struct **SFVec4f** **\_dir**
- struct **SFVec4f** **\_col**
- struct **SFVec4f** **\_amb**

### 4.1121.1 Detailed Description

Definition at line 4222 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1122 X3D\_DISEntityManager Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**



- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **isActive**
- double **timestamp**
- struct **Uni\_String** \* **address**
- int **port**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isStandAlone**
- double **readInterval**
- double **writeInterval**
- int **rtpHeaderExpected**
- int **isRtpHeaderHeard**
- int **\_registered**
- struct **X3D\_Node** \* **\_dsock**
- double **\_lasttime**
- int **\_pduchange\_networksensor**
- struct **X3D\_Node** \* **\_oldState**
- int **entityID**
- int **applicationID**
- int **siteID**
- struct **Multi\_Node** mapping
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** addedEntities
- struct **Multi\_Node** removedEntities
- struct **Multi\_Node** addEntities
- struct **Multi\_Node** removeEntities
- struct **Multi\_Node** entities
- int **\_pduchange\_create**
- int **\_pduchange\_remove**
- int **\_pduchange\_em\_info**

### 4.1122.1 Detailed Description

Definition at line 4143 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1123 X3D\_DISEntityTypeMapping Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- int **kind**
- int **domain**
- int **country**
- int **category**
- int **subcategory**
- int **specific**
- int **extra**
- struct **X3D\_Node** \* **\_child**

### 4.1123.1 Detailed Description

Definition at line 4194 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1124 X3D\_Disk2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**

- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- float **innerRadius**
- float **outerRadius**
- int **solid**
- struct **Multi\_Vec2f** **\_\_points**
- struct **Multi\_Vec2f** **\_\_texCoords**
- int **\_\_numPoints**
- int **\_\_simpleDisk**
- void \* **\_\_wireindices**

#### 4.1124.1 Detailed Description

Definition at line 4250 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1125 X3D\_DoubleAxisHingeJoint Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **anchorPoint**
- struct **SFVec3f** **axis1**
- struct **SFVec3f** **axis2**
- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- float **desiredAngularVelocity1**
- float **desiredAngularVelocity2**
- struct **Multi\_String** **forceOutput**
- float **maxAngle1**
- float **maxTorque1**
- float **maxTorque2**
- struct **X3D\_Node** \* **metadata**
- float **minAngle1**

- float **stopBounce1**
- float **stopConstantForceMix1**
- float **stopErrorCorrection1**
- float **suspensionErrorCorrection**
- float **suspensionForce**
- struct **SFVec3f** **body1AnchorPoint**
- struct **SFVec3f** **body1Axis**
- struct **SFVec3f** **body2AnchorPoint**
- struct **SFVec3f** **body2Axis**
- float **hinge1Angle**
- float **hinge1AngleRate**
- float **hinge2Angle**
- float **hinge2AngleRate**
- void \* **\_joint**
- int **\_forceout**
- struct **SFVec3f** **\_\_old\_anchorPoint**
- struct **SFVec3f** **\_\_old\_axis1**
- struct **SFVec3f** **\_\_old\_axis2**
- struct **X3D\_Node** \* **\_\_old\_body1**
- struct **X3D\_Node** \* **\_\_old\_body2**
- void \* **\_motor1**
- void \* **\_motor2**
- float **axis1Angle**

#### 4.1125.1 Detailed Description

Definition at line 4277 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1126 X3D\_EaseInEaseOut Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Vec2f** **easeInEaseOut**
- struct **Multi\_Float** **key**
- struct **X3D\_Node** \* **metadata**
- float **modifiedFraction\_changed**

### 4.1126.1 Detailed Description

Definition at line 4331 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1127 X3D\_EdgeEnhancementVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **surfaceNormals**
- struct **SFColorRGBA** **edgeColor**
- float **gradientThreshold**

### 4.1127.1 Detailed Description

Definition at line 4354 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1128 X3D\_Effect Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **activate**
- struct **Multi\_Node** parts
- int **isSelected**
- int **isValid**
- struct **Uni\_String** \* **language**
- struct **X3D\_Node** \* **metadata**
- int **\_initialized**
- struct **X3D\_Node** \* **\_shaderUserDefinedFields**
- int **\_shaderUserNumber**
- pthread\_t **\_shaderLoadThread**
- int **\_retrievedURLData**

### 4.1128.1 Detailed Description

Definition at line 4377 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1129 X3D\_EffectPart Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**

- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- struct **Uni\_String** \* **type**
- int **\_\_loadstatus**
- void \* **\_parentResource**
- void \* **\_\_loadResource**
- struct **X3D\_Node** \* **\_shaderUserDefinedFields**

#### 4.1129.1 Detailed Description

Definition at line 4406 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1130 X3D\_ElevationGrid Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Float** **set\_height**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- float **creaseAngle**
- struct **Multi\_Float** **height**
- int **normalPerVertex**
- int **solid**
- int **xDimension**
- float **xSpacing**
- int **zDimension**
- float **zSpacing**
- struct **Multi\_Int32** **\_coordIndex**

### 4.1130.1 Detailed Description

Definition at line 4431 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1131 X3D\_EspduTransform Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **isActive**
- double **timestamp**
- struct **Uni\_String** \* **address**
- int **port**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isStandAlone**
- double **readInterval**
- double **writeInterval**
- int **rtpHeaderExpected**
- int **isRtpHeaderHeard**
- int **\_registered**
- struct **X3D\_Node** \* **\_dsock**
- double **\_lasttime**
- int **\_pduchange\_networksensor**
- struct **X3D\_Node** \* **\_oldState**
- int **entityID**
- int **applicationID**
- int **siteID**
- struct **Multi\_String** **geoSystem**
- struct **SFVec3d** **geoCoords**
- struct **X3D\_Node** \* **\_\_geoSystem**
- int **entityKind**



- int **entityDomain**
- int **entityCountry**
- int **entityCategory**
- int **entitySubCategory**
- int **entitySpecific**
- int **entityExtra**
- int **forceID**
- struct **Uni\_String** \* **marking**
- int **deadReckoning**
- struct **SFVec3f** **linearVelocity**
- struct **SFVec3f** **linearAcceleration**
- struct **SFVec3f** **\_p0**
- struct **SFVec3f** **\_v0**
- struct **SFVec3f** **\_a0**
- struct **SFRotation** **\_angularVelocity**
- struct **SFRotation** **\_r0**
- int **\_change\_count**
- int **\_sent**
- struct **SFVec3f** **\_lastp0**
- struct **SFRotation** **\_lastr0**
- double **\_lastp0time**
- double **\_lastframetime**
- struct **SFVec3f** **\_smoothingDelta**
- int **\_smoothingCount**
- float **set\_articulationParameterValue0**
- float **set\_articulationParameterValue1**
- float **set\_articulationParameterValue2**
- float **set\_articulationParameterValue3**
- float **set\_articulationParameterValue4**
- float **set\_articulationParameterValue5**
- float **set\_articulationParameterValue6**
- float **set\_articulationParameterValue7**
- int **articulationParameterCount**
- struct **Multi\_Int32** **articulationParameterDesignatorArray**
- struct **Multi\_Int32** **articulationParameterChangeIndicatorArr**
- struct **Multi\_Int32** **articulationParameterIdPartAttachedToAr**
- struct **Multi\_Int32** **articulationParameterTypeArray**
- struct **Multi\_Float** **articulationParameterArray**
- float **articulationParameterValue0\_changed**
- float **articulationParameterValue1\_changed**
- float **articulationParameterValue2\_changed**
- float **articulationParameterValue3\_changed**
- float **articulationParameterValue4\_changed**
- float **articulationParameterValue5\_changed**
- float **articulationParameterValue6\_changed**
- float **articulationParameterValue7\_changed**
- int **\_pduchange\_es**
- int **collisionType**
- double **collideTime**
- int **isCollided**
- int **\_pduchange\_collision**
- int **eventEntityID**
- int **eventApplicationID**
- int **eventSiteID**
- int **eventNumber**

- int **fired1**
- int **fired2**
- int **fireMissionIndex**
- float **firingRange**
- double **firedTime**
- int **\_pduchange\_fire**
- struct **SFVec3f** **detonationLocation**
- struct **SFVec3f** **detonationRelativeLocation**
- int **detonationResult**
- double **detonateTime**
- int **isDetonated**
- int **\_pduchange\_detonation**
- int **munitionEntityID**
- int **munitionApplicationID**
- int **munitionSiteID**
- struct **SFVec3f** **munitionStartPoint**
- struct **SFVec3f** **munitionEndPoint**
- int **munitionQuantity**
- int **firingRate**
- int **fuse**
- int **warhead**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **SFVec3f** **center**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **scale**
- struct **SFRotation** **scaleOrientation**
- struct **SFVec3f** **translation**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_\_do\_center**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- int **\_\_do\_scaleO**
- int **\_\_do\_scale**
- int **\_\_do\_anything**
- struct **Multi\_Node** **\_sortedChildren**

#### 4.1131.1 Detailed Description

Definition at line 4467 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1132 X3D\_ExplosionEmitter Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **position**
- float **speed**
- float **variation**
- float **mass**
- float **surfaceArea**

### 4.1132.1 Detailed Description

Definition at line 4607 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1133 X3D\_Extrusion Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec2f** **set\_crossSection**

- struct **Multi\_Rotation** set\_orientation
- struct **Multi\_Vec2f** set\_scale
- struct **Multi\_Vec3f** set\_spine
- struct **X3D\_Node** \* metadata
- int **beginCap**
- int **ccw**
- int **convex**
- float **creaseAngle**
- struct **Multi\_Vec2f** crossSection
- int **endCap**
- struct **Multi\_Rotation** orientation
- struct **Multi\_Vec2f** scale
- int **solid**
- struct **Multi\_Vec3f** spine

#### 4.1133.1 Detailed Description

Definition at line 4631 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1134 X3D\_FillProperties Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **filled**
- struct **SFColor** **hatchColor**
- int **hatched**
- int **hatchStyle**
- struct **X3D\_Node** \* **metadata**
- int **\_enabled**
- struct **SFVec2f** **\_hatchScale**

### 4.1134.1 Detailed Description

Definition at line 4664 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1135 X3D\_FloatVertexAttribute Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Float** value
- struct **Uni\_String** \* **name**
- int **numComponents**
- struct **X3D\_Node** \* **metadata**

### 4.1135.1 Detailed Description

Definition at line 4689 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1136 X3D\_Fog Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFColor** **color**
- struct **Uni\_String** \* **fogType**
- float **visibilityRange**
- float **\_\_fogScale**
- int **\_\_fogType**
- int **set\_bind**
- double **bindTime**
- int **isBound**
- int **\_layerId**
- struct **X3D\_Node** \* **metadata**

### 4.1136.1 Detailed Description

Definition at line 4711 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1137 X3D\_FogCoordinate Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Float** **depth**
- struct **X3D\_Node** \* **metadata**

### 4.1137.1 Detailed Description

Definition at line 4739 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1138 X3D\_FontStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** family
- int **horizontal**
- struct **Multi\_String** justify
- struct **Uni\_String** \* **language**
- int **leftToRight**
- float **size**
- float **spacing**
- struct **Uni\_String** \* **style**
- int **topToBottom**

### 4.1138.1 Detailed Description

Definition at line 4759 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1139 X3D\_ForcePhysicsModel Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **SFVec3f** **force**
- struct **X3D\_Node** \* **metadata**

### 4.1139.1 Detailed Description

Definition at line 4787 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1140 X3D\_GeneratedCubeMapTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **textureProperties**
- int **\_\_textureTableIndex**
- void \* **\_parentResource**
- struct **Multi\_Node** **\_\_subTextures**
- int **\_\_regenSubTextures**
- struct **Uni\_String** \* **update**
- int **size**



### 4.1140.1 Detailed Description

Definition at line 4808 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1141 X3D\_GeoConvert Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3d** **set\_geoCoords**
- struct **SFVec3d** **set\_gcCoords**
- struct **Multi\_String** **geoSystem**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3d** **gcCoords\_changed**
- struct **SFVec3d** **geoCoords\_changed**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3d** **\_\_oldgeoCoords**
- struct **SFVec3d** **\_\_oldgcCoords**

### 4.1141.1 Detailed Description

Definition at line 4834 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1142 X3D\_GeoCoordinate Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec3d** **point**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **Multi\_Vec3f** **\_\_movedCoords**

### 4.1142.1 Detailed Description

Definition at line 4861 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1143 X3D\_GeoElevationGrid Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Double** **set\_height**

- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- float **yScale**
- int **ccw**
- int **colorPerVertex**
- double **creaseAngle**
- struct **SFVec3d** **geoGridOrigin**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- struct **Multi\_Double** **height**
- int **normalPerVertex**
- int **solid**
- int **xDimension**
- double **xSpacing**
- int **zDimension**
- double **zSpacing**
- struct **Multi\_Int32** **\_coordIndex**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3d** **\_\_autoOffset**
- struct **SFVec4d** **\_\_localOrient**
- struct **Multi\_Int32** **\_\_planets**

#### 4.1143.1 Detailed Description

Definition at line 4885 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1144 X3D\_GeoLocation Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**

- struct **Multi\_Node \_\_sibAffectors**
- struct **Multi\_Node children**
- struct **SFVec3d geoCoords**
- struct **X3D\_Node \* metadata**
- struct **X3D\_Node \* geoOrigin**
- struct **Multi\_String geoSystem**
- struct **SFVec3f bboxCenter**
- struct **SFVec3f bboxSize**
- int **relativeHeight**
- double **\_gridHeight**
- struct **X3D\_Node \* \_\_geoSystem**
- struct **SFVec3d \_\_position**
- struct **SFVec3d \_\_movedCoords**
- struct **SFVec3d \_\_movedgd**
- struct **SFVec4d \_\_localOrient**
- struct **SFVec4d \_\_offsetOrient**
- struct **SFVec3d \_\_oldgeoCoords**
- struct **Multi\_Node \_\_oldChildren**
- struct **Multi\_Node \_sortedChildren**

#### 4.1144.1 Detailed Description

Definition at line 4971 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1145 X3D\_GeoLOD Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector \* \_parentVector**
- double **\_dist**
- float **\_extent [6]**
- struct **X3D\_PolyRep \* \_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node \* \_executionContext**
- struct **X3D\_Node \* metadata**
- struct **Multi\_Node children**
- int **level\_changed**
- struct **SFVec3d center**
- struct **Multi\_String child1Url**
- struct **Multi\_String child2Url**

- struct **Multi\_String** child3Url
- struct **Multi\_String** child4Url
- struct **X3D\_Node** \* geoOrigin
- struct **Multi\_String** geoSystem
- float range
- struct **Multi\_String** rootUrl
- struct **Multi\_Node** rootNode
- struct **SFVec3f** bboxCenter
- struct **SFVec3f** bboxSize
- struct **X3D\_Node** \* \_\_geoSystem
- struct **SFVec3d** \_\_movedCoords
- int \_\_inRange
- struct **X3D\_Node** \* \_\_child1Node
- struct **X3D\_Node** \* \_\_child2Node
- struct **X3D\_Node** \* \_\_child3Node
- struct **X3D\_Node** \* \_\_child4Node
- struct **X3D\_Node** \* \_\_rootUrl
- int \_\_childloadstatus
- int \_\_rooturlloadstatus
- int \_\_level

#### 4.1145.1 Detailed Description

Definition at line 4927 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1146 X3D\_GeoMetadata Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** data
- struct **Multi\_String** summary
- struct **Multi\_String** url
- struct **X3D\_Node** \* metadata

### 4.1146.1 Detailed Description

Definition at line 5010 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1147 X3D\_GeoOrigin Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3d** **geoCoords**
- struct **Multi\_String** **geoSystem**
- struct **X3D\_Node** \* **metadata**
- int **rotateYUp**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedCoords**
- struct **SFVec3d** **\_\_movedgd**
- struct **SFVec3d** **\_\_oldgeoCoords**
- struct **Multi\_String** **\_\_oldMFString**
- struct **SFVec4d** **\_\_rotyup**

### 4.1147.1 Detailed Description

Definition at line 5032 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1148 X3D\_GeoPlanet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **Uni\_String** \* **description**
- int **planetId**
- struct **Multi\_Node** **\_\_oldChildren**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1148.1 Detailed Description

Definition at line 5060 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1149 X3D\_GeoPositionInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**

- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec3d** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3d** **geovalue\_changed**
- struct **SFVec3f** **value\_changed**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **Multi\_Vec3f** **\_\_movedValue**
- struct **Multi\_Float** **\_\_oldKeyPtr**
- struct **Multi\_Vec3d** **\_\_oldKeyValuePtr**

#### 4.1149.1 Detailed Description

Definition at line 5089 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1150 X3D\_GeoProximitySensor Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **SFVec3d** **geoCenter**
- struct **SFVec3d** **center**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **size**
- struct **SFVec3f** **centerOfRotation\_changed**
- double **enterTime**
- double **exitTime**
- struct **SFVec3d** **geoCoord\_changed**



- int **isActive**
- struct **SFRotation** **orientation\_changed**
- struct **SFVec3f** **position\_changed**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- int **\_\_hit**
- struct **SFVec3f** **\_\_t1**
- struct **SFRotation** **\_\_t2**
- struct **SFVec3d** **\_\_t3**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedCoords**
- struct **SFVec4d** **\_\_localOrient**
- int **\_\_oldEnabled**
- struct **SFVec3d** **\_\_oldGeoCenter**
- struct **SFVec3f** **\_\_oldSize**

### 4.1150.1 Detailed Description

Definition at line 5119 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1151 X3D\_GeoTouchSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Uni\_String** \* **description**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **hitNormal\_changed**
- struct **SFVec3f** **hitPoint\_changed**
- struct **SFVec2f** **hitTexCoord\_changed**
- struct **SFVec3d** **hitGeoCoord\_changed**
- int **isActive**
- int **isOver**
- double **touchTime**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3f** **\_oldhitNormal**
- struct **SFVec3f** **\_oldhitPoint**
- struct **SFVec2f** **\_oldhitTexCoord**
- int **\_\_oldEnabled**

### 4.1151.1 Detailed Description

Definition at line 5161 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1152 X3D\_GeoTransform Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **SFVec3f** **center**
- struct **Multi\_Node** **children**
- struct **SFVec3d** **geoCenter**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **scale**
- struct **SFRotation** **scaleOrientation**
- struct **SFVec3f** **translation**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- int **\_\_do\_center**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- int **\_\_do\_scaleO**
- int **\_\_do\_scale**
- int **\_\_do\_anything**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedCoords**
- struct **SFVec4d** **\_\_localOrient**
- struct **SFVec3d** **\_\_oldGeoCenter**
- struct **Multi\_Node** **\_\_oldChildren**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1152.1 Detailed Description

Definition at line 5196 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1153 X3D\_GeoViewpoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **\_layerId**
- int **\_donethispass**
- int **set\_bind**
- double **bindTime**
- int **isBound**
- struct **Uni\_String** \* **description**
- int **jump**
- float **fieldOfView**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **orientation**
- struct **SFVec3d** **position**
- struct **SFVec3d** **centerOfRotation**
- int **headlight**
- struct **Multi\_String** **navType**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- float **speedFactor**
- int **retainUserOffsets**
- int **\_initializedOnce**
- struct **SFRotation** **\_orientation**
- struct **SFVec3d** **\_position**
- int **relativeHeight**
- int **\_resetRelativeHeight**
- int **\_prepped\_planet**
- struct **X3D\_Node** \* **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedPosition**
- struct **SFRotation** **\_\_movedOrientation**

- struct **SFRotation** \_\_movedOrientationB
- struct **SFVec3d** \_\_movedgd
- struct **Uni\_String** \* \_\_oldSFString
- float \_\_oldFieldOfView
- int \_\_oldHeadlight
- int \_\_oldJump
- struct **Multi\_String** \_\_oldMFString

#### 4.1153.1 Detailed Description

Definition at line 5241 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1154 X3D\_Group Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **Multi\_Node** **\_sortedChildren**

#### 4.1154.1 Detailed Description

Definition at line 5293 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1155 X3D\_HAnimDisplacer Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **coordIndex**
- struct **Multi\_Vec3f** **displacements**
- struct **Uni\_String** \* **name**
- float **weight**
- struct **X3D\_Node** \* **metadata**

### 4.1155.1 Detailed Description

Definition at line 5319 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1156 X3D\_HAnimHumanoid Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **center**
- struct **Multi\_String** **info**

- struct **Multi\_Node** joints
- struct **Uni\_String** \* name
- struct **SFRotation** rotation
- struct **SFVec3f** scale
- struct **SFRotation** scaleOrientation
- struct **Multi\_Node** segments
- struct **Multi\_Node** sites
- struct **Multi\_Node** skeleton
- struct **Multi\_Node** skin
- struct **X3D\_Node** \* skinCoord
- struct **X3D\_Node** \* skinNormal
- struct **Multi\_Node** \_\_sibAffectors
- struct **SFVec3f** translation
- struct **Uni\_String** \* version
- struct **Multi\_Node** viewpoints
- struct **SFVec3f** bboxCenter
- struct **SFVec3f** bboxSize
- struct **X3D\_Node** \* metadata
- void \* \_JT
- void \* \_PVI
- void \* \_PVW
- int \_NV
- void \* \_origCoords
- void \* \_origNorms

#### 4.1156.1 Detailed Description

Definition at line 5342 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1157 X3D\_HAnimJoint Struct Reference

#### Data Fields

- int \_nodeType
- int \_renderFlags
- int \_hit
- int \_change
- int \_ichange
- struct **Vector** \* \_parentVector
- double \_dist
- float \_extent [6]
- struct **X3D\_PolyRep** \* \_intern
- int referenceCount
- int \_defaultContainer
- void \* \_gc
- struct **X3D\_Node** \* \_executionContext
- struct **Multi\_Node** addChildren

- struct **Multi\_Node** removeChildren
- struct **Multi\_Node** \_\_sibAffectors
- struct **Multi\_Node** children
- struct **SFVec3f** center
- struct **SFRotation** rotation
- struct **SFVec3f** scale
- struct **SFRotation** scaleOrientation
- struct **SFVec3f** translation
- struct **Multi\_Node** displacers
- struct **SFRotation** limitOrientation
- struct **Multi\_Float** llimit
- struct **Uni\_String** \* name
- struct **Multi\_Int32** skinCoordIndex
- struct **Multi\_Float** skinCoordWeight
- struct **Multi\_Float** stiffness
- struct **Multi\_Float** ulimit
- struct **SFVec3f** bboxCenter
- struct **SFVec3f** bboxSize
- struct **X3D\_Node** \* metadata
- int \_\_do\_center
- int \_\_do\_trans
- int \_\_do\_rotation
- int \_\_do\_scaleO
- int \_\_do\_scale
- int \_\_do\_anything

#### 4.1157.1 Detailed Description

Definition at line 5386 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1158 X3D\_HAnimSegment Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**

- struct **Multi\_Node** addChildren
- struct **Multi\_Node** removeChildren
- struct **Multi\_Node** \_\_sibAffectors
- struct **Multi\_Node** children
- struct **Uni\_String** \* name
- struct **SFVec3f** bboxCenter
- struct **SFVec3f** bboxSize
- struct **SFVec3f** centerOfMass
- struct **X3D\_Node** \* coord
- struct **Multi\_Node** displacers
- float **mass**
- struct **Multi\_Float** momentsOfInertia
- struct **X3D\_Node** \* metadata
- void \* **\_origCoords**

#### 4.1158.1 Detailed Description

Definition at line 5430 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1159 X3D\_HAnimSite Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** addChildren
- struct **Multi\_Node** removeChildren
- struct **Multi\_Node** \_\_sibAffectors
- struct **Multi\_Node** children
- struct **Uni\_String** \* name
- struct **SFVec3f** bboxCenter
- struct **SFVec3f** bboxSize
- struct **SFVec3f** center
- struct **SFRotation** rotation
- struct **SFVec3f** scale
- struct **SFRotation** scaleOrientation



- struct **SFVec3f** translation
- struct **X3D\_Node** \* metadata
- int **\_\_do\_center**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- int **\_\_do\_scaleO**
- int **\_\_do\_scale**
- int **\_\_do\_anything**

### 4.1159.1 Detailed Description

Definition at line 5462 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1160 X3D\_ImageBackdropBackground Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_bind**
- double **bindTime**
- int **isBound**
- float **transparency**
- struct **SFColor** **color**
- struct **X3D\_Node** \* **metadata**
- int **\_\_texture**
- int **\_\_VBO**
- struct **Multi\_Int32** **image**

### 4.1160.1 Detailed Description

Definition at line 5499 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1161 X3D\_ImageCubeMapTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **textureProperties**
- int **\_\_textureTableIndex**
- void \* **\_parentResource**
- struct **Multi\_Node** **\_\_subTextures**
- int **\_\_regenSubTextures**
- struct **Multi\_String** **url**

### 4.1161.1 Detailed Description

Definition at line 5526 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1162 X3D\_ImageTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- int **repeatS**
- int **repeatT**
- struct **X3D\_Node** \* **textureProperties**
- int **\_\_textureTableIndex**
- void \* **\_parentResource**

### 4.1162.1 Detailed Description

Definition at line 5551 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1163 X3D\_ImageTexture3D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- int **repeatS**
- int **repeatT**
- int **repeatR**
- struct **X3D\_Node** \* **textureProperties**
- int **\_\_textureTableIndex**
- void \* **\_parentResource**
- int **\_needs\_gradient**

### 4.1163.1 Detailed Description

Definition at line 5576 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1164 X3D\_IndexedFaceSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_colorIndex**
- struct **Multi\_Int32** **set\_coordIndex**
- struct **Multi\_Int32** **set\_normalIndex**
- struct **Multi\_Int32** **set\_texCoordIndex**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- struct **Multi\_Int32** **colorIndex**
- int **colorPerVertex**
- int **convex**
- struct **Multi\_Int32** **coordIndex**
- float **creaseAngle**
- struct **Multi\_Int32** **normalIndex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **texCoordIndex**

### 4.1164.1 Detailed Description

Definition at line 5603 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1165 X3D\_IndexedLineSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_colorIndex**
- struct **Multi\_Int32** **set\_coordIndex**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Int32** **colorIndex**
- int **colorPerVertex**
- struct **Multi\_Int32** **coordIndex**
- void \* **\_\_vertArr**
- void \* **\_\_vertIndx**
- void \* **\_\_xcolours**
- void \* **\_\_vertices**
- void \* **\_\_vertexCount**
- int **\_\_segCount**

### 4.1165.1 Detailed Description

Definition at line 5642 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1166 X3D\_IndexedQuadSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_index**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- struct **Multi\_Int32** **index**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **\_coordIndex**

### 4.1166.1 Detailed Description

Definition at line 5676 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1167 X3D\_IndexedTriangleFanSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**

- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_index**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **index**
- struct **Multi\_Int32** **\_coordIndex**

#### 4.1167.1 Detailed Description

Definition at line 5708 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1168 X3D\_IndexedTriangleSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_index**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**

- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **index**
- struct **Multi\_Int32** **\_coordIndex**

#### 4.1168.1 Detailed Description

Definition at line 5740 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1169 X3D\_IndexedTriangleStripSet Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_index**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **index**
- struct **Multi\_Int32** **\_coordIndex**



### 4.1169.1 Detailed Description

Definition at line 5772 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1170 X3D\_Inline Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **\_\_children**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **Multi\_Node** **\_sortedChildren**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- void \* **\_\_protoDeclares**
- void \* **\_\_externProtoDeclares**
- void \* **\_\_nodes**
- void \* **\_\_subcontexts**
- void \* **\_\_GC**
- void \* **\_\_protoDef**
- int **\_\_protoFlags**
- struct **X3D\_Node** \* **\_\_prototype**
- struct **X3D\_Node** \* **\_\_parentProto**
- void \* **\_\_ROUTES**
- void \* **\_\_EXPORTS**
- void \* **\_\_IMPORTS**
- void \* **\_\_DEFnames**
- void \* **\_\_IS**
- void \* **\_\_scripts**
- struct **Multi\_String** **url**
- struct **Multi\_String** **\_\_oldurl**
- void \* **\_\_afterPound**
- int **\_\_loadstatus**

- void \* **\_parentResource**
- void \* **\_\_loadResource**
- void \* **\_\_typename**
- int **load**
- int **\_\_oldload**
- double **\_\_unitlengthfactor**
- int **\_\_specversion**

#### 4.1170.1 Detailed Description

Definition at line 5804 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1171 X3D\_IntegerSequencer Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **next**
- int **previous**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Int32** **keyValue**
- int **value\_changed**
- struct **X3D\_Node** \* **metadata**
- int **\_index**

#### 4.1171.1 Detailed Description

Definition at line 5856 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1172 X3D\_IntegerTrigger Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_boolean**
- int **integerKey**
- int **triggerValue**
- struct **X3D\_Node** \* **metadata**

### 4.1172.1 Detailed Description

Definition at line 5882 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1173 X3D\_IsoSurfaceVolumeData Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **dimensions**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **voxels**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- void \* **\_boxtris**
- struct **Multi\_Node** **renderStyle**
- float **contourStepSize**
- struct **X3D\_Node** \* **gradients**
- float **surfaceTolerance**
- struct **Multi\_Float** **surfaceValues**

### 4.1173.1 Detailed Description

Definition at line 5904 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1174 X3D\_KeySensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **actionKeyPress**
- int **actionKeyRelease**
- int **altKey**
- int **controlKey**
- int **isActive**
- struct **Uni\_String** \* **keyPress**
- struct **Uni\_String** \* **keyRelease**
- int **shiftKey**
- struct **X3D\_Node** \* **metadata**
- int **\_\_oldEnabled**

### 4.1174.1 Detailed Description

Definition at line 5933 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1175 X3D\_Layer Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- int **isPickable**
- struct **X3D\_Node** \* **viewport**

### 4.1175.1 Detailed Description

Definition at line 5994 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1176 X3D\_LayerSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **activeLayer**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **layers**
- struct **Multi\_Int32** **order**

### 4.1176.1 Detailed Description

Definition at line 6019 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1177 X3D\_Layout Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_String** align
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Float** offset
- struct **Multi\_String** offsetUnits
- struct **Multi\_String** scaleMode
- struct **Multi\_Float** size
- struct **Multi\_String** sizeUnits
- struct **Multi\_Int32** \_align
- struct **Multi\_Int32** \_offsetUnits
- struct **Multi\_Int32** \_scaleMode
- struct **Multi\_Int32** \_sizeUnits
- struct **Multi\_Float** \_scale

### 4.1177.1 Detailed Description

Definition at line 6041 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1178 X3D\_LayoutGroup Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **X3D\_Node** \* **layout**
- struct **X3D\_Node** \* **viewport**

### 4.1178.1 Detailed Description

Definition at line 6071 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1179 X3D\_LayoutLayer Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**

- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- int **isPickable**
- struct **X3D\_Node** \* **viewport**
- struct **X3D\_Node** \* **layout**

#### 4.1179.1 Detailed Description

Definition at line 6098 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1180 X3D\_LinePickSensor Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **objectType**
- struct **X3D\_Node** \* **pickingGeometry**
- struct **Multi\_Node** **pickTarget**
- int **isActive**
- struct **Multi\_Node** **pickedGeometry**
- struct **Uni\_String** \* **intersectionType**
- struct **Uni\_String** \* **sortOrder**
- struct **Uni\_String** \* **matchCriterion**
- int **\_\_oldEnabled**
- struct **Multi\_Vec3f** **pickedPoint**
- struct **Multi\_Vec3f** **pickedNormal**
- struct **Multi\_Vec3f** **pickedTextureCoordinate**



### 4.1180.1 Detailed Description

Definition at line 6124 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1181 X3D\_LineProperties Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **applied**
- int **linetype**
- float **linewidthScaleFactor**
- struct **X3D\_Node** \* **metadata**

### 4.1181.1 Detailed Description

Definition at line 6156 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1182 X3D\_LineSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **autoOffset**
- struct **SFVec3f** **direction**
- int **enabled**
- float **maxPosition**
- float **minPosition**
- float **offset**
- int **isActive**
- int **isOver**
- struct **Uni\_String** \* **description**
- struct **SFVec3f** **trackPoint\_changed**
- struct **SFVec3f** **translation\_changed**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **\_oldtrackPoint**
- struct **SFVec3f** **\_oldtranslation**
- struct **SFVec3f** **\_origPoint**
- int **\_\_oldEnabled**

### 4.1182.1 Detailed Description

Definition at line 6178 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1183 X3D\_LineSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **fogCoord**
- struct **Multi\_Int32** **vertexCount**
- void \* **\_\_vertArr**
- void \* **\_\_vertIndx**
- int **\_\_segCount**

### 4.1183.1 Detailed Description

Definition at line 6212 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1184 X3D\_LoadSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**

- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- double **timeOut**
- struct **Multi\_Node** **watchList**
- int **isActive**
- int **isLoading**
- double **loadTime**
- float **progress**
- int **\_\_loading**
- int **\_\_finishedloading**
- double **\_\_StartLoadTime**
- int **\_\_oldEnabled**

#### 4.1184.1 Detailed Description

Definition at line 6239 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1185 X3D\_LocalFog Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFColor** **color**
- struct **Uni\_String** \* **fogType**
- float **visibilityRange**
- float **\_\_fogScale**
- int **\_\_fogType**
- int **enabled**
- struct **X3D\_Node** \* **metadata**

### 4.1185.1 Detailed Description

Definition at line 6269 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1186 X3D\_LOD Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **level**
- struct **Multi\_Node** **children**
- struct **SFVec3f** **center**
- struct **Multi\_Float** **range**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **X3D\_Node** \* **metadata**
- int **level\_changed**
- int **forceTransitions**
- int **\_\_isX3D**
- void \* **\_selected**

### 4.1186.1 Detailed Description

Definition at line 5962 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1187 X3D\_Material Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **ambientIntensity**
- struct **SFColor** **diffuseColor**
- struct **SFColor** **emissiveColor**
- struct **X3D\_Node** \* **metadata**
- float **shininess**
- struct **SFColor** **specularColor**
- float **transparency**
- struct **Multi\_Float** **\_verifiedColor**

### 4.1187.1 Detailed Description

Definition at line 6294 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1188 X3D\_Matrix3VertexAttribute Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Matrix3f** **value**
- struct **Uni\_String** \* **name**
- struct **X3D\_Node** \* **metadata**

### 4.1188.1 Detailed Description

Definition at line 6320 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1189 X3D\_Matrix4VertexAttribute Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Matrix4f** value
- struct **Uni\_String** \* **name**

### 4.1189.1 Detailed Description

Definition at line 6341 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1190 X3D\_MetadataBoolean Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Uni\_String** \* **reference**
- struct **Multi\_Bool** value

### 4.1190.1 Detailed Description

Definition at line 6362 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1191 X3D\_MetadataDouble Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Uni\_String** \* **reference**
- struct **Multi\_Double** value

### 4.1191.1 Detailed Description

Definition at line 6384 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1192 X3D\_MetadataFloat Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Uni\_String** \* **reference**
- struct **Multi\_Float** value

### 4.1192.1 Detailed Description

Definition at line 6406 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1193 X3D\_MetadataInteger Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Uni\_String** \* **reference**
- struct **Multi\_Int32** value

### 4.1193.1 Detailed Description

Definition at line 6428 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1194 X3D\_MetadataMFBool Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Bool** value
- struct **Multi\_Bool** valueChanged
- struct **Multi\_Bool** setValue
- double **tickTime**

### 4.1194.1 Detailed Description

Definition at line 6450 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1195 X3D\_MetadataMFColor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Color** value
- struct **Multi\_Color** valueChanged
- struct **Multi\_Color** setValue
- double **tickTime**

### 4.1195.1 Detailed Description

Definition at line 6472 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1196 X3D\_MetadataMFColorRGBA Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_ColorRGBA** value
- struct **Multi\_ColorRGBA** valueChanged
- struct **Multi\_ColorRGBA** setValue
- double **tickTime**

### 4.1196.1 Detailed Description

Definition at line 6494 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1197 X3D\_MetadataMFDouble Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Double** **value**
- struct **Multi\_Double** **valueChanged**
- struct **Multi\_Double** **setValue**
- double **tickTime**

### 4.1197.1 Detailed Description

Definition at line 6516 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1198 X3D\_MetadataMFFloat Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Float** value
- struct **Multi\_Float** valueChanged
- struct **Multi\_Float** setValue
- double **tickTime**

### 4.1198.1 Detailed Description

Definition at line 6538 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1199 X3D\_MetadataMFloat32 Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** value
- struct **Multi\_Int32** valueChanged
- struct **Multi\_Int32** setValue
- double **tickTime**

### 4.1199.1 Detailed Description

Definition at line 6560 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1200 X3D\_MetadataMFMatrix3d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Matrix3d** value
- struct **Multi\_Matrix3d** valueChanged
- struct **Multi\_Matrix3d** setValue
- double **tickTime**

### 4.1200.1 Detailed Description

Definition at line 6582 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1201 X3D\_MetadataMFMatrix3f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Matrix3f** value
- struct **Multi\_Matrix3f** valueChanged
- struct **Multi\_Matrix3f** setValue
- double **tickTime**

### 4.1201.1 Detailed Description

Definition at line 6604 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1202 X3D\_MetadataMFMatrix4d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Matrix4d** value
- struct **Multi\_Matrix4d** valueChanged
- struct **Multi\_Matrix4d** setValue
- double **tickTime**

### 4.1202.1 Detailed Description

Definition at line 6626 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1203 X3D\_MetadataMFMatrix4f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Matrix4f** **value**
- struct **Multi\_Matrix4f** **valueChanged**
- struct **Multi\_Matrix4f** **setValue**
- double **tickTime**

### 4.1203.1 Detailed Description

Definition at line 6648 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1204 X3D\_MetadataMFNode Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** value
- struct **Multi\_Node** valueChanged
- struct **Multi\_Node** setValue
- double **tickTime**

### 4.1204.1 Detailed Description

Definition at line 6670 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1205 X3D\_MetadataMFRotation Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Rotation** value
- struct **Multi\_Rotation** valueChanged
- struct **Multi\_Rotation** setValue
- double **tickTime**

### 4.1205.1 Detailed Description

Definition at line 6692 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1206 X3D\_MetadataMFString Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_String** value
- struct **Multi\_String** valueChanged
- struct **Multi\_String** setValue
- double **tickTime**

### 4.1206.1 Detailed Description

Definition at line 6714 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1207 X3D\_MetadataMFTIME Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Time** value
- struct **Multi\_Time** valueChanged
- struct **Multi\_Time** setValue
- double **tickTime**

### 4.1207.1 Detailed Description

Definition at line 6736 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1208 X3D\_MetadataMFVec2d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec2d** value
- struct **Multi\_Vec2d** valueChanged
- struct **Multi\_Vec2d** setValue
- double **tickTime**

### 4.1208.1 Detailed Description

Definition at line 6758 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1209 X3D\_MetadataMFVec2f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec2f** value
- struct **Multi\_Vec2f** valueChanged
- struct **Multi\_Vec2f** setValue
- double **tickTime**

### 4.1209.1 Detailed Description

Definition at line 6780 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1210 X3D\_MetadataMFVec3d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec3d** value
- struct **Multi\_Vec3d** valueChanged
- struct **Multi\_Vec3d** setValue
- double **tickTime**

### 4.1210.1 Detailed Description

Definition at line 6802 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1211 X3D\_MetadataMFVec3f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec3f** value
- struct **Multi\_Vec3f** valueChanged
- struct **Multi\_Vec3f** setValue
- double **tickTime**

### 4.1211.1 Detailed Description

Definition at line 6824 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1212 X3D\_MetadataMFVec4d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec4d** value
- struct **Multi\_Vec4d** valueChanged
- struct **Multi\_Vec4d** setValue
- double **tickTime**

### 4.1212.1 Detailed Description

Definition at line 6846 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1213 X3D\_MetadataMFVec4f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Vec4f** value
- struct **Multi\_Vec4f** valueChanged
- struct **Multi\_Vec4f** setValue
- double **tickTime**

### 4.1213.1 Detailed Description

Definition at line 6868 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1214 X3D\_MetadataSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Uni\_String** \* **reference**
- struct **Multi\_Node** value

#### 4.1214.1 Detailed Description

Definition at line 7352 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

### 4.1215 X3D\_MetadataSFBool Struct Reference

#### Data Fields

- `int _nodeType`
- `int _renderFlags`
- `int _hit`
- `int _change`
- `int _ichange`
- `struct Vector * _parentVector`
- `double _dist`
- `float _extent [6]`
- `struct X3D_PolyRep * _intern`
- `int referenceCount`
- `int _defaultContainer`
- `void * _gc`
- `struct X3D_Node * _executionContext`
- `int value`
- `int valueChanged`
- `int setValue`
- `double tickTime`

#### 4.1215.1 Detailed Description

Definition at line 6890 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`



## 4.1216 X3D\_MetadataSFCOLOR Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFCOLOR** value
- struct **SFCOLOR** valueChanged
- struct **SFCOLOR** setValue
- double **tickTime**

### 4.1216.1 Detailed Description

Definition at line 6912 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1217 X3D\_MetadataSFCOLORRGBA Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFCOLORRGBA** value
- struct **SFCOLORRGBA** valueChanged
- struct **SFCOLORRGBA** setValue
- double **tickTime**

### 4.1217.1 Detailed Description

Definition at line 6934 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1218 X3D\_MetadataSFDouble Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- double **value**
- double **valueChanged**
- double **setValue**
- double **tickTime**

### 4.1218.1 Detailed Description

Definition at line 6956 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1219 X3D\_MetadataSFFloat Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **value**
- float **valueChanged**
- float **setValue**
- double **tickTime**

### 4.1219.1 Detailed Description

Definition at line 6978 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1220 X3D\_MetadataSFImage Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **value**
- struct **Multi\_Int32** **valueChanged**
- struct **Multi\_Int32** **setValue**
- double **tickTime**

### 4.1220.1 Detailed Description

Definition at line 7000 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1221 X3D\_MetadataSFInt32 Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **value**
- int **valueChanged**
- int **setValue**
- double **tickTime**

### 4.1221.1 Detailed Description

Definition at line 7022 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1222 X3D\_MetadataSfMatrix3d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SfMatrix3d** **value**
- struct **SfMatrix3d** **valueChanged**
- struct **SfMatrix3d** **setValue**
- double **tickTime**

### 4.1222.1 Detailed Description

Definition at line 7044 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1223 X3D\_MetadataSfMatrix3f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SfMatrix3f** **value**
- struct **SfMatrix3f** **valueChanged**
- struct **SfMatrix3f** **setValue**
- double **tickTime**

### 4.1223.1 Detailed Description

Definition at line 7066 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1224 X3D\_MetadataSFMatrix4d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFMatrix4d** **value**
- struct **SFMatrix4d** **valueChanged**
- struct **SFMatrix4d** **setValue**
- double **tickTime**

### 4.1224.1 Detailed Description

Definition at line 7088 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1225 X3D\_MetadataSFMatrix4f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFMatrix4f** **value**
- struct **SFMatrix4f** **valueChanged**
- struct **SFMatrix4f** **setValue**
- double **tickTime**

### 4.1225.1 Detailed Description

Definition at line 7110 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1226 X3D\_MetadataSFNode Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **value**
- struct **X3D\_Node** \* **valueChanged**
- struct **X3D\_Node** \* **setValue**
- double **tickTime**

### 4.1226.1 Detailed Description

Definition at line 7132 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1227 X3D\_MetadataSFRotation Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFRotation** **value**
- struct **SFRotation** **valueChanged**
- struct **SFRotation** **setValue**
- double **tickTime**

### 4.1227.1 Detailed Description

Definition at line 7154 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1228 X3D\_MetadataSFString Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Uni\_String** \* **value**
- struct **Uni\_String** \* **valueChanged**
- struct **Uni\_String** \* **setValue**
- double **tickTime**

### 4.1228.1 Detailed Description

Definition at line 7176 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1229 X3D\_MetadataSFTime Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- double **value**
- double **valueChanged**
- double **setValue**
- double **tickTime**

### 4.1229.1 Detailed Description

Definition at line 7198 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1230 X3D\_MetadataSFVec2d Struct Reference

### Data Fields

- `int _nodeType`
- `int _renderFlags`
- `int _hit`
- `int _change`
- `int _ichange`
- `struct Vector * _parentVector`
- `double _dist`
- `float _extent [6]`
- `struct X3D_PolyRep * _intern`
- `int referenceCount`
- `int _defaultContainer`
- `void * _gc`
- `struct X3D_Node * _executionContext`
- `struct SFVec2d value`
- `struct SFVec2d valueChanged`
- `struct SFVec2d setValue`
- `double tickTime`

### 4.1230.1 Detailed Description

Definition at line 7220 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1231 X3D\_MetadataSFVec2f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec2f** value
- struct **SFVec2f** valueChanged
- struct **SFVec2f** setValue
- double **tickTime**

### 4.1231.1 Detailed Description

Definition at line 7242 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1232 X3D\_MetadataSFVec3d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3d** value
- struct **SFVec3d** valueChanged
- struct **SFVec3d** setValue
- double **tickTime**

### 4.1232.1 Detailed Description

Definition at line 7264 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1233 X3D\_MetadataSFVec3f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **value**
- struct **SFVec3f** **valueChanged**
- struct **SFVec3f** **setValue**
- double **tickTime**

### 4.1233.1 Detailed Description

Definition at line 7286 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1234 X3D\_MetadataSFVec4d Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec4d** **value**
- struct **SFVec4d** **valueChanged**
- struct **SFVec4d** **setValue**
- double **tickTime**

### 4.1234.1 Detailed Description

Definition at line 7308 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1235 X3D\_MetadataSFVec4f Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec4f** **value**
- struct **SFVec4f** **valueChanged**
- struct **SFVec4f** **setValue**
- double **tickTime**

### 4.1235.1 Detailed Description

Definition at line 7330 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1236 X3D\_MetadataString Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **name**
- struct **Uni\_String** \* **reference**
- struct **Multi\_String** value

### 4.1236.1 Detailed Description

Definition at line 7374 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1237 X3D\_MotorJoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **axis1Angle**
- float **axis1Torque**
- float **axis2Angle**
- float **axis2Torque**
- float **axis3Angle**
- float **axis3Torque**
- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- int **enabledAxes**
- struct **Multi\_String** **forceOutput**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **motor1Axis**
- struct **SFVec3f** **motor2Axis**
- struct **SFVec3f** **motor3Axis**
- float **stop1Bounce**
- float **stop1ErrorCorrection**
- float **stop2Bounce**
- float **stop2ErrorCorrection**
- float **stop3Bounce**
- float **stop3ErrorCorrection**
- float **motor1Angle**
- float **motor1AngleRate**
- float **motor2Angle**
- float **motor2AngleRate**
- float **motor3Angle**
- float **motor3AngleRate**
- int **autoCalc**
- void \* **\_joint**
- int **\_forceout**
- struct **SFVec3f** **\_\_old\_motor1Axis**
- struct **SFVec3f** **\_\_old\_motor2Axis**
- struct **SFVec3f** **\_\_old\_motor3Axis**
- struct **X3D\_Node** \* **\_\_old\_body1**
- struct **X3D\_Node** \* **\_\_old\_body2**
- float **\_\_old\_axis1Angle**
- float **\_\_old\_axis2Angle**
- float **\_\_old\_axis3Angle**

### 4.1237.1 Detailed Description

Definition at line 7396 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1238 X3D\_MovieTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Uni\_String** \* **description**
- int **loop**
- struct **X3D\_Node** \* **metadata**
- double **pauseTime**
- float **pitch**
- double **resumeTime**
- double **startTime**
- double **stopTime**
- struct **Multi\_String** **url**
- double **duration\_changed**
- double **elapsedTime**
- int **isActive**
- int **isPaused**
- void \* **\_parentResource**
- int **\_\_loadstatus**
- void \* **\_\_loadResource**
- int **\_\_sourceNumber**
- double **\_\_inittime**
- double **\_\_lasttime**
- int **repeatS**
- int **repeatT**
- struct **X3D\_Node** \* **textureProperties**
- int **\_\_textureTableIndex**
- float **speed**
- float **\_\_frac**
- int **\_\_ctex**
- int **\_\_lowest**
- int **\_\_highest**
- void \* **\_\_fw\_movie**



### 4.1238.1 Detailed Description

Definition at line 7451 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1239 X3D\_MultiTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **alpha**
- struct **SFColor** **color**
- struct **Multi\_String** **function**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **mode**
- struct **Multi\_String** **source**
- struct **Multi\_Node** **texture**
- void \* **\_\_xparams**

### 4.1239.1 Detailed Description

Definition at line 7498 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1240 X3D\_MultiTextureCoordinate Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **texCoord**

### 4.1240.1 Detailed Description

Definition at line 7524 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1241 X3D\_MultiTextureTransform Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **textureTransform**

### 4.1241.1 Detailed Description

Definition at line 7544 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1242 X3D\_NavigationInfo Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_bind**
- struct **Multi\_Float** **avatarSize**
- int **headlight**
- float **speed**
- struct **Multi\_String** **type**
- float **visibilityLimit**
- int **isBound**
- int **\_layerId**
- struct **Multi\_String** **transitionType**
- double **bindTime**
- struct **X3D\_Node** \* **metadata**
- double **transitionTime**
- int **transitionComplete**

### 4.1242.1 Detailed Description

Definition at line 7564 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1243 X3D\_Node Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**

### 4.1243.1 Detailed Description

Definition at line 2577 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1244 X3D\_Normal Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec3f** **vector**

### 4.1244.1 Detailed Description

Definition at line 7595 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1245 X3D\_NormalInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec3f** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec3f** **value\_changed**

### 4.1245.1 Detailed Description

Definition at line 7615 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1246 X3D\_NurbsCurve Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **controlPoint**
- struct **Multi\_Double** **weight**
- struct **Multi\_Double** **knot**
- int **order**
- int **tessellation**
- int **closed**
- float **\_tscale**
- struct **Multi\_Vec3f** **\_\_points**
- int **\_\_numPoints**

### 4.1246.1 Detailed Description

Definition at line 7638 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1247 X3D\_NurbsCurve2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**

- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2d** **controlPoint**
- struct **Multi\_Double** **weight**
- struct **Multi\_Double** **knot**
- int **order**
- int **tessellation**
- int **closed**
- float **\_tscale**

### 4.1247.1 Detailed Description

Definition at line 7666 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1248 X3D\_NurbsOrientationInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **controlPoint**
- struct **Multi\_Double** **weight**
- struct **Multi\_Double** **knot**
- int **order**
- float **set\_fraction**
- struct **SFRotation** **value\_changed**
- struct **Multi\_Float** **\_knot**
- struct **Multi\_Vec4f** **\_xyzw**
- int **\_OK**
- struct **SFVec2f** **\_knotrange**

### 4.1248.1 Detailed Description

Definition at line 7692 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1249 X3D\_NurbsPatchSurface Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **controlPoint**
- struct **Multi\_Double** **weight**
- struct **Multi\_Double** **uKnot**
- int **uOrder**
- int **uDimension**
- int **uTessellation**
- int **uClosed**
- struct **Multi\_Double** **vKnot**
- int **vOrder**
- int **vDimension**
- int **vTessellation**
- int **vClosed**
- struct **X3D\_Node** \* **texCoord**
- int **solid**
- float **\_tscale**

### 4.1249.1 Detailed Description

Definition at line 7721 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1250 X3D\_NurbsPositionInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **controlPoint**
- struct **Multi\_Double** **weight**
- struct **Multi\_Double** **knot**
- int **order**
- float **set\_fraction**
- struct **SFVec3f** **value\_changed**
- struct **Multi\_Float** **knot**
- struct **Multi\_Vec4f** **\_xyzw**
- int **\_OK**
- struct **SFVec2f** **\_knotrange**

### 4.1250.1 Detailed Description

Definition at line 7755 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1251 X3D\_NurbsSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**

- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addGeometry**
- struct **Multi\_Node** **removeGeometry**
- struct **Multi\_Node** **geometry**
- struct **X3D\_Node** \* **metadata**
- float **tessellationScale**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

#### 4.1251.1 Detailed Description

Definition at line 7784 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1252 X3D\_NurbsSurfaceInterpolator Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **controlPoint**
- struct **Multi\_Double** **weight**
- struct **Multi\_Double** **uKnot**
- int **uOrder**
- int **uDimension**
- struct **Multi\_Double** **vKnot**
- int **vOrder**
- int **vDimension**
- struct **SFVec2f** **set\_fraction**
- struct **SFVec3f** **position\_changed**
- struct **SFVec3f** **normal\_changed**
- struct **Multi\_Float** **uKnot**
- struct **Multi\_Float** **vKnot**
- struct **Multi\_Vec4f** **\_controlPoint**
- int **\_OK**

### 4.1252.1 Detailed Description

Definition at line 7809 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1253 X3D\_NurbsSweptSurface Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **crossSectionCurve**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **trajectoryCurve**
- int **ccw**
- int **solid**
- struct **Uni\_String** \* **method**
- struct **X3D\_Node** \* **\_patch**
- int **\_method**

### 4.1253.1 Detailed Description

Definition at line 7843 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1254 X3D\_NurbsSwungSurface Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **profileCurve**
- struct **X3D\_Node** \* **trajectoryCurve**
- int **ccw**
- int **solid**
- struct **X3D\_Node** \* **\_patch**

### 4.1254.1 Detailed Description

Definition at line 7869 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1255 X3D\_NurbsTextureCoordinate Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**

- struct **Multi\_Vec2f** controlPoint
- struct **Multi\_Float** weight
- struct **Multi\_Double** uKnot
- int **uOrder**
- int **uDimension**
- struct **Multi\_Double** vKnot
- int **vOrder**
- int **vDimension**
- struct **Multi\_Float\_uKnot**
- struct **Multi\_Float\_vKnot**
- struct **Multi\_Vec4f\_controlPoint**

#### 4.1255.1 Detailed Description

Definition at line 7893 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1256 X3D\_NurbsTrimmedSurface Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **controlPoint**
- struct **Multi\_Double** weight
- struct **Multi\_Double** uKnot
- int **uOrder**
- int **uDimension**
- int **uTessellation**
- int **uClosed**
- struct **Multi\_Double** vKnot
- int **vOrder**
- int **vDimension**
- int **vTessellation**
- int **vClosed**
- struct **X3D\_Node** \* **texCoord**
- int **solid**
- struct **Multi\_Node** addTrimmingContour
- struct **Multi\_Node** removeTrimmingContour
- struct **Multi\_Node** trimmingContour
- float **\_tscale**

### 4.1256.1 Detailed Description

Definition at line 7923 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1257 X3D\_OpacityMapVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **transferFunction**

### 4.1257.1 Detailed Description

Definition at line 8001 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1258 X3D\_OrientationChaser Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**
- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- struct **SFRotation** **value\_changed**
- struct **SFRotation** **initialDestination**
- struct **SFRotation** **initialValue**
- struct **SFRotation** **set\_destination**
- struct **SFRotation** **set\_value**
- void \* **\_buffer**
- struct **SFRotation** **\_previousvalue**
- struct **SFRotation** **\_destination**

### 4.1258.1 Detailed Description

Definition at line 8022 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1259 X3D\_OrientationDamper Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**
- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- struct **SFRotation** **value\_changed**
- struct **SFRotation** **initialDestination**
- struct **SFRotation** **initialValue**
- struct **SFRotation** **set\_destination**
- struct **SFRotation** **set\_value**
- void \* **\_values**
- struct **SFRotation** **\_input**

### 4.1259.1 Detailed Description

Definition at line 8055 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1260 X3D\_OrientationInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Rotation** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **value\_changed**

### 4.1260.1 Detailed Description

Definition at line 8090 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1261 X3D\_OrthoViewpoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **\_layerId**
- int **\_donethispass**

- int **set\_bind**
- double **bindTime**
- int **isBound**
- struct **Uni\_String** \* **description**
- int **jump**
- struct **Multi\_Float** **fieldOfView**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **orientation**
- struct **SFVec3f** **position**
- struct **SFVec3f** **centerOfRotation**
- int **retainUserOffsets**
- int **\_initializedOnce**
- struct **SFRotation** **\_orientation**
- struct **SFVec3f** **\_position**

#### 4.1261.1 Detailed Description

Definition at line 8113 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1262 X3D\_OSC\_Sensor Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **Uni\_String** \* **description**
- struct **Uni\_String** \* **protocol**
- struct **Uni\_String** \* **listenfor**
- int **port**
- struct **Uni\_String** \* **filter**
- struct **Uni\_String** \* **handler**
- struct **Multi\_String** **talksTo**
- int **FIFOsize**
- int **int32Inp**
- float **floatInp**

- struct **Uni\_String** \* **stringInp**
- int **gotEvents**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** \* **talkToNodes**
- int **\_status**
- void \* **\_int32InpFIFO**
- void \* **\_floatInpFIFO**
- void \* **\_stringInpFIFO**
- void \* **\_int32OutFIFO**
- void \* **\_floatOutFIFO**
- void \* **\_stringOutFIFO**
- struct **X3D\_Node** \* **\_\_oldmetadata**

### 4.1262.1 Detailed Description

Definition at line 7960 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1263 X3D\_PackagedShader Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **activate**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- int **isSelected**
- int **isValid**
- struct **Uni\_String** \* **language**
- int **\_initialized**
- int **\_shaderUserNumber**
- struct **X3D\_Node** \* **\_shaderUserDefinedFields**
- pthread\_t **\_shaderLoadThread**
- int **\_retrievedURLData**

### 4.1263.1 Detailed Description

Definition at line 8147 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1264 X3D\_ParticleSystem Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **appearance**
- struct **X3D\_Node** \* **geometry**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_shaderflags\_base**
- int **\_shaderflags\_effects**
- int **\_shaderflags\_usershaders**
- int **createParticles**
- int **enabled**
- float **lifetimeVariation**
- int **maxParticles**
- float **particleLifetime**
- struct **SFVec2f** **particleSize**
- int **isActive**
- struct **X3D\_Node** \* **colorRamp**
- struct **Multi\_Float** **colorKey**
- struct **X3D\_Node** \* **emitter**
- struct **Uni\_String** \* **geometryType**
- struct **Multi\_Node** **physics**
- struct **X3D\_Node** \* **texCoordRamp**
- struct **Multi\_Float** **texCoordKey**
- void \* **\_tris**
- void \* **\_ttex**
- void \* **\_ltex**
- void \* **\_particles**
- double **\_lasttime**
- int **\_geometryType**
- float **\_remainder**

### 4.1264.1 Detailed Description

Definition at line 8176 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1265 X3D\_PickableGroup Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **objectType**
- int **pickable**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

### 4.1265.1 Detailed Description

Definition at line 8223 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1266 X3D\_PixelTexture Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **image**
- struct **X3D\_Node** \* **metadata**
- int **repeatS**
- int **repeatT**
- struct **X3D\_Node** \* **textureProperties**
- void \* **\_parentResource**
- int **\_\_textureTableIndex**

### 4.1266.1 Detailed Description

Definition at line 8250 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1267 X3D\_PixelTexture3D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**

- struct **Multi\_Int32** image
- struct **X3D\_Node** \* metadata
- int repeatS
- int repeatT
- int repeatR
- struct **X3D\_Node** \* textureProperties
- int \_\_textureTableIndex
- void \* \_parentResource
- int \_needs\_gradient

### 4.1267.1 Detailed Description

Definition at line 8275 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1268 X3D\_PlaneSensor Struct Reference

### Data Fields

- int \_nodeType
- int \_renderFlags
- int \_hit
- int \_change
- int \_ichange
- struct **Vector** \* \_parentVector
- double \_dist
- float \_extent [6]
- struct **X3D\_PolyRep** \* \_intern
- int referenceCount
- int \_defaultContainer
- void \* \_gc
- struct **X3D\_Node** \* \_executionContext
- int autoOffset
- struct **SFRotation** axisRotation
- int enabled
- struct **SFVec2f** maxPosition
- struct **SFVec2f** minPosition
- struct **SFVec3f** offset
- int isActive
- int isOver
- struct **Uni\_String** \* description
- struct **SFVec3f** trackPoint\_changed
- struct **SFVec3f** translation\_changed
- struct **X3D\_Node** \* metadata
- int sensorLocalOutput
- struct **SFVec3f** \_oldtrackPoint
- struct **SFVec3f** \_oldtranslation
- struct **SFVec3f** \_origPoint
- int \_\_oldEnabled

### 4.1268.1 Detailed Description

Definition at line 8302 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1269 X3D\_PointEmitter Struct Reference

### Data Fields

- `int _nodeType`
- `int _renderFlags`
- `int _hit`
- `int _change`
- `int _ichange`
- `struct Vector * _parentVector`
- `double _dist`
- `float _extent [6]`
- `struct X3D_PolyRep * _intern`
- `int referenceCount`
- `int _defaultContainer`
- `void * _gc`
- `struct X3D_Node * _executionContext`
- `struct SFVec3f direction`
- `struct X3D_Node * metadata`
- `struct SFVec3f position`
- `float speed`
- `float variation`
- `float mass`
- `float surfaceArea`

### 4.1269.1 Detailed Description

Definition at line 8337 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`



## 4.1270 X3D\_PointLight Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **ambientIntensity**
- struct **SFVec3f** **attenuation**
- struct **SFColor** **color**
- int **global**
- float **intensity**
- struct **SFVec3f** **location**
- struct **X3D\_Node** \* **metadata**
- int **on**
- float **radius**
- struct **SFVec4f** **\_loc**
- struct **SFVec4f** **\_col**
- struct **SFVec4f** **\_amb**

### 4.1270.1 Detailed Description

Definition at line 8362 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1271 X3D\_PointPickSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]

- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **objectType**
- struct **X3D\_Node** \* **pickingGeometry**
- struct **Multi\_Node** **pickTarget**
- int **isActive**
- struct **Multi\_Node** **pickedGeometry**
- struct **Uni\_String** \* **intersectionType**
- struct **Uni\_String** \* **sortOrder**
- struct **Uni\_String** \* **matchCriterion**
- int **\_\_oldEnabled**
- struct **Multi\_Vec3f** **pickedPoint**
- int **\_oldIsActive**
- struct **Multi\_Node** **\_oldpickTarget**
- struct **Multi\_Node** **\_oldpickedGeometry**
- struct **Multi\_Vec3f** **\_oldpickedPoint**
- struct **SFVec3f** **\_bboxCenter**
- struct **SFVec3f** **\_bboxSize**
- struct **Uni\_String** \* **set\_intersectionType**
- struct **Uni\_String** \* **set\_sortOrder**

#### 4.1271.1 Detailed Description

Definition at line 8392 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1272 X3D\_PointSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**

- int **autoOffset**
- int **enabled**
- struct **SFVec3f** **maxPosition**
- struct **SFVec3f** **minPosition**
- struct **SFVec3f** **offset**
- int **isActive**
- int **isOver**
- struct **Uni\_String** \* **description**
- struct **SFVec3f** **trackPoint\_changed**
- struct **SFVec3f** **translation\_changed**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **\_oldtrackPoint**
- struct **SFVec3f** **\_oldtranslation**
- struct **SFVec3f** **\_origPoint**
- int **\_\_oldEnabled**

### 4.1272.1 Detailed Description

Definition at line 8430 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1273 X3D\_PointSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- int **\_pointsVBO**
- int **\_coloursVBO**
- int **\_npoints**
- int **\_colourSize**

### 4.1273.1 Detailed Description

Definition at line 8463 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1274 X3D\_Polyline2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2f** **lineSegments**

### 4.1274.1 Detailed Description

Definition at line 8490 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1275 X3D\_PolylineEmitter Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]

- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_coordIndex**
- int **set\_coordinate**
- struct **X3D\_Node** \* **coord**
- struct **SFVec3f** **direction**
- struct **X3D\_Node** \* **metadata**
- float **speed**
- float **variation**
- struct **Multi\_Int32** **coordIndex**
- float **mass**
- float **surfaceArea**
- int **\_method**
- int **\_nseg**
- void \* **\_segs**
- void \* **\_portions**

#### 4.1275.1 Detailed Description

Definition at line 8510 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1276 X3D\_Polypoint2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2f** **point**

### 4.1276.1 Detailed Description

Definition at line 8542 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1277 X3D\_PolyRep Struct Reference

### Data Fields

- int **irep\_change**
- int **ccw**
- int **ntri**
- int **streamed**
- GLuint \* **cindex**
- GLuint \* **colindex**
- GLuint \* **norindex**
- GLuint \* **tcindex**
- ushort \* **tri\_indices**
- ushort \* **wire\_indices**
- float \* **actualCoord**
- float \* **actualFog**
- float \* **color**
- float \* **normal**
- float \* **flat\_normal**
- int **last\_normal\_type**
- int **last\_index\_type**
- float \* **GeneratedTexCoords** [4]
- int **ntexdim** [4]
- int **ntcoord**
- int **tcoordtype**
- int **texgentype**
- GLfloat **minVals** [3]
- GLfloat **maxVals** [3]
- GLfloat **transparency**
- int **isRGBAColorNode**
- GLuint **VBO\_buffers** [VBO\_COUNT]

### 4.1277.1 Detailed Description

Definition at line 62 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1278 X3D\_PositionChaser Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**
- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- struct **SFVec3f** **value\_changed**
- struct **SFVec3f** **initialDestination**
- struct **SFVec3f** **initialValue**
- struct **SFVec3f** **set\_destination**
- struct **SFVec3f** **set\_value**
- void \* **\_buffer**
- struct **SFVec3f** **\_previousvalue**
- struct **SFVec3f** **\_destination**

### 4.1278.1 Detailed Description

Definition at line 8562 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1279 X3D\_PositionChaser2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**
- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- struct **SFVec2f** **value\_changed**
- struct **SFVec2f** **initialDestination**
- struct **SFVec2f** **initialValue**
- struct **SFVec2f** **set\_destination**
- struct **SFVec2f** **set\_value**
- void \* **\_buffer**
- struct **SFVec2f** **\_previousvalue**
- struct **SFVec2f** **\_destination**

### 4.1279.1 Detailed Description

Definition at line 8595 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1280 X3D\_PositionDamper Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**
- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- struct **SFVec3f** **value\_changed**
- struct **SFVec3f** **initialDestination**
- struct **SFVec3f** **initialValue**
- struct **SFVec3f** **set\_destination**
- struct **SFVec3f** **set\_value**
- void \* **\_values**
- struct **SFVec3f** **\_input**

### 4.1280.1 Detailed Description

Definition at line 8628 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1281 X3D\_PositionDamper2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**
- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- struct **SFVec2f** **value\_changed**
- struct **SFVec2f** **initialDestination**
- struct **SFVec2f** **initialValue**
- struct **SFVec2f** **set\_destination**
- struct **SFVec2f** **set\_value**
- void \* **\_values**
- struct **SFVec2f** **\_input**

### 4.1281.1 Detailed Description

Definition at line 8663 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1282 X3D\_PositionInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec3f** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **value\_changed**

### 4.1282.1 Detailed Description

Definition at line 8698 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1283 X3D\_PositionInterpolator2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec2f** **keyValue**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec2f** **value\_changed**

### 4.1283.1 Detailed Description

Definition at line 8721 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1284 X3D\_PrimitivePickSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **objectType**
- struct **X3D\_Node** \* **pickingGeometry**
- struct **Multi\_Node** **pickTarget**
- int **isActive**
- struct **Multi\_Node** **pickedGeometry**
- struct **Uni\_String** \* **intersectionType**
- struct **Uni\_String** \* **sortOrder**
- struct **Uni\_String** \* **matchCriterion**
- int **\_\_oldEnabled**

### 4.1284.1 Detailed Description

Definition at line 8744 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1285 X3D\_ProgramShader Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **activate**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **programs**
- int **isSelected**
- int **isValid**
- struct **Uni\_String** \* **language**
- int **\_initialized**
- int **\_shaderUserNumber**
- pthread\_t **\_shaderLoadThread**
- int **\_retrievedURLData**

### 4.1285.1 Detailed Description

Definition at line 8773 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1286 X3D\_ProjectionVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- float **intensityThreshold**
- struct **Uni\_String** \* **type**
- int **\_type**

### 4.1286.1 Detailed Description

Definition at line 8801 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1287 X3D\_Proto Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **\_\_children**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **Multi\_Node** **\_sortedChildren**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- void \* **\_\_protoDeclares**
- void \* **\_\_externProtoDeclares**
- void \* **\_\_nodes**
- void \* **\_\_subcontexts**
- void \* **\_\_GC**
- void \* **\_\_protoDef**
- int **\_\_protoFlags**
- struct **X3D\_Node** \* **\_\_prototype**
- struct **X3D\_Node** \* **\_\_parentProto**
- void \* **\_\_ROUTES**
- void \* **\_\_EXPORTS**
- void \* **\_\_IMPORTS**
- void \* **\_\_DEFnames**
- void \* **\_\_IS**
- void \* **\_\_scripts**
- struct **Multi\_String** **url**
- struct **Multi\_String** **\_\_oldurl**
- void \* **\_\_afterPound**
- int **\_\_loadstatus**

- void \* **\_parentResource**
- void \* **\_\_loadResource**
- void \* **\_\_typename**
- int **load**
- int **\_\_oldload**
- double **\_\_unitlengthfactor**
- int **\_\_specversion**

### 4.1287.1 Detailed Description

Definition at line 8824 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1288 X3D\_ProximitySensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **center**
- struct **SFVec3f** **size**
- int **enabled**
- int **isActive**
- struct **SFVec3f** **position\_changed**
- struct **SFRotation** **orientation\_changed**
- double **enterTime**
- double **exitTime**
- struct **SFVec3f** **centerOfRotation\_changed**
- struct **X3D\_Node** \* **metadata**
- int **\_\_hit**
- struct **SFVec3f** **\_\_t1**
- struct **SFRotation** **\_\_t2**
- int **\_\_oldEnabled**

### 4.1288.1 Detailed Description

Definition at line 8876 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1289 X3D\_QuadSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **\_coordIndex**

### 4.1289.1 Detailed Description

Definition at line 8908 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1290 X3D\_ReceiverPdu Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **isActive**
- double **timestamp**
- struct **Uni\_String** \* **address**
- int **port**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isStandAlone**
- double **readInterval**
- double **writeInterval**
- int **rtpHeaderExpected**
- int **isRtpHeaderHeard**
- int **\_registered**
- struct **X3D\_Node** \* **\_dsock**
- double **\_lasttime**
- int **\_pduchange\_networksensor**
- struct **X3D\_Node** \* **\_oldState**
- int **entityID**
- int **applicationID**
- int **siteID**
- struct **Multi\_String** **geoSystem**
- struct **SFVec3d** **geoCoords**
- struct **X3D\_Node** \* **\_\_geoSystem**
- int **radioID**
- int **whichGeometry**
- int **receiverState**
- float **receivedPower**
- int **transmitterEntityID**
- int **transmitterApplicationID**
- int **transmitterSiteID**
- int **transmitterRadioID**
- int **\_pduchange\_receiver**

### 4.1290.1 Detailed Description

Definition at line 8938 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1291 X3D\_Rectangle2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec2f** **size**
- int **solid**
- struct **Multi\_Vec3f** **\_\_points**
- int **\_\_numPoints**

### 4.1291.1 Detailed Description

Definition at line 8991 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1292 X3D\_RigidBody Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **angularDampingFactor**
- struct **SFVec3f** **angularVelocity**
- int **autoDamp**
- int **autoDisable**
- struct **SFVec3f** **centerOfMass**
- float **disableAngularSpeed**
- float **disableLinearSpeed**
- float **disableTime**
- int **enabled**
- struct **SFVec3f** **finiteRotationAxis**
- int **fixed**
- struct **Multi\_Vec3f** **forces**
- struct **Multi\_Node** **geometry**
- struct **SFMatrix3f** **inertia**
- float **linearDampingFactor**
- struct **SFVec3f** **linearVelocity**
- float **mass**
- struct **X3D\_Node** \* **massDensityModel**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **orientation**
- struct **SFVec3f** **position**
- struct **Multi\_Vec3f** **torques**
- int **useFiniteRotation**
- int **useGlobalGravity**
- void \* **\_body**
- struct **SFVec3f** **\_\_old\_angularVelocity**
- struct **SFVec3f** **\_\_old\_centerOfMass**
- struct **SFVec3f** **\_\_old\_finiteRotationAxis**
- struct **SFVec3f** **\_\_old\_linearVelocity**
- struct **SFRotation** **\_\_old\_orientation**
- struct **SFVec3f** **\_\_old\_position**
- void \* **\_geomIdentityTransform**

### 4.1292.1 Detailed Description

Definition at line 9014 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1293 X3D\_RigidBodyCollection Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **set\_contacts**
- int **autoDisable**
- struct **Multi\_Node** **bodies**
- float **constantForceMix**
- float **contactSurfaceThickness**
- float **disableAngularSpeed**
- float **disableLinearSpeed**
- float **disableTime**
- int **enabled**
- float **errorCorrection**
- struct **SFVec3f** **gravity**
- int **iterations**
- struct **Multi\_Node** **joints**
- float **maxCorrectionSpeed**
- struct **X3D\_Node** \* **metadata**
- int **preferAccuracy**
- struct **X3D\_Node** \* **collider**
- void \* **\_world**
- void \* **\_group**

### 4.1293.1 Detailed Description

Definition at line 9064 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1294 X3D\_ScalarChaser Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**
- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- float **value\_changed**
- float **initialDestination**
- float **initialValue**
- float **set\_destination**
- float **set\_value**
- void \* **\_buffer**
- float **\_previousvalue**
- float **\_destination**

### 4.1294.1 Detailed Description

Definition at line 9101 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1295 X3D\_ScalarDamper Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**
- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- float **value\_changed**
- float **initialDestination**
- float **initialValue**
- float **set\_destination**
- float **set\_value**
- void \* **\_values**
- float **\_input**

### 4.1295.1 Detailed Description

Definition at line 9134 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1296 X3D\_ScalarInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Float** **keyValue**
- struct **X3D\_Node** \* **metadata**
- float **value\_changed**

### 4.1296.1 Detailed Description

Definition at line 9169 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1297 X3D\_ScreenFontStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **family**
- int **horizontal**
- struct **Multi\_String** **justify**
- struct **Uni\_String** \* **language**
- int **leftToRight**
- float **pointSize**
- float **spacing**
- struct **Uni\_String** \* **style**
- int **topToBottom**

### 4.1297.1 Detailed Description

Definition at line 9192 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1298 X3D\_ScreenGroup Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

### 4.1298.1 Detailed Description

Definition at line 9220 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1299 X3D\_Script Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_String** **url**
- int **directOutput**
- int **mustEvaluate**
- struct **X3D\_Node** \* **metadata**
- void \* **\_\_scriptObj**
- void \* **\_parentResource**

### 4.1299.1 Detailed Description

Definition at line 9245 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1300 X3D\_SegmentedVolumeData Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **dimensions**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **voxels**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- void \* **\_boxtris**
- struct **Multi\_Node** **renderStyle**
- struct **Multi\_Bool** **segmentEnabled**
- struct **X3D\_Node** \* **segmentIdentifiers**

### 4.1300.1 Detailed Description

Definition at line 9269 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1301 X3D\_ShadedVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **surfaceNormals**
- int **lighting**
- int **shadows**
- struct **X3D\_Node** \* **material**
- struct **Uni\_String** \* **phaseFunction**
- int **\_phaseFunction**

### 4.1301.1 Detailed Description

Definition at line 9296 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1302 X3D\_ShaderPart Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- struct **Uni\_String** \* **type**
- int **\_\_loadstatus**
- void \* **\_parentResource**
- void \* **\_\_loadResource**
- struct **X3D\_Node** \* **\_shaderUserDefinedFields**

### 4.1302.1 Detailed Description

Definition at line 9322 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1303 X3D\_ShaderProgram Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **url**
- struct **Uni\_String** \* **type**
- int **\_\_loadstatus**
- void \* **\_parentResource**
- void \* **\_\_loadResource**
- struct **X3D\_Node** \* **\_shaderUserDefinedFields**

### 4.1303.1 Detailed Description

Definition at line 9347 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1304 X3D\_Shape Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **appearance**
- struct **X3D\_Node** \* **geometry**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_shaderflags\_base**
- int **\_shaderflags\_effects**
- int **\_shaderflags\_usershaders**
- int **\_\_visible**
- int **\_\_occludeCheckCount**
- int **\_\_Samples**

### 4.1304.1 Detailed Description

Definition at line 9372 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1305 X3D\_SignalPdu Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **isActive**
- double **timestamp**
- struct **Uni\_String** \* **address**
- int **port**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isStandAlone**
- double **readInterval**
- double **writeInterval**
- int **rtpHeaderExpected**
- int **isRtpHeaderHeard**
- int **\_registered**
- struct **X3D\_Node** \* **\_dsock**
- double **\_lasttime**
- int **\_pduchange\_networksensor**
- struct **X3D\_Node** \* **\_oldState**
- int **entityID**
- int **applicationID**
- int **siteID**
- struct **Multi\_String** **geoSystem**
- struct **SFVec3d** **geoCoords**
- struct **X3D\_Node** \* **\_\_geoSystem**
- int **radioID**
- int **whichGeometry**
- struct **Multi\_Int32** **data**
- int **dataLength**
- int **encodingScheme**
- int **sampleRate**
- int **samples**
- int **tdlType**
- int **\_pduchange\_signal**

### 4.1305.1 Detailed Description

Definition at line 9401 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1306 X3D\_SilhouetteEnhancementVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **surfaceNormals**
- float **silhouetteBoundaryOpacity**
- float **silhouetteRetainedOpacity**
- float **silhouetteSharpness**

### 4.1306.1 Detailed Description

Definition at line 9454 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1307 X3D\_SingleAxisHingeJoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **anchorPoint**
- struct **SFVec3f** **axis**
- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- struct **Multi\_String** **forceOutput**
- float **maxAngle**
- struct **X3D\_Node** \* **metadata**
- float **minAngle**
- float **stopBounce**
- float **stopErrorCorrection**
- float **angle**
- float **angleRate**
- struct **SFVec3f** **body1AnchorPoint**
- struct **SFVec3f** **body2AnchorPoint**
- void \* **\_joint**
- int **\_forceout**
- struct **SFVec3f** **\_\_old\_anchorPoint**
- struct **SFVec3f** **\_\_old\_axis**
- struct **X3D\_Node** \* **\_\_old\_body1**
- struct **X3D\_Node** \* **\_\_old\_body2**

### 4.1307.1 Detailed Description

Definition at line 9478 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1308 X3D\_SliderJoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **axis**
- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- struct **Multi\_String** **forceOutput**
- float **maxSeparation**
- struct **X3D\_Node** \* **metadata**
- float **minSeparation**
- float **sliderForce**
- float **stopBounce**
- float **stopErrorCorrection**
- float **separation**
- float **separationRate**
- void \* **\_joint**
- int **\_forceout**
- struct **SFVec3f** **\_\_old\_axis**
- struct **X3D\_Node** \* **\_\_old\_body1**
- struct **X3D\_Node** \* **\_\_old\_body2**

### 4.1308.1 Detailed Description

Definition at line 9516 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1309 X3D\_Sound Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **direction**
- float **intensity**
- struct **SFVec3f** **location**
- float **maxBack**
- float **maxFront**
- struct **X3D\_Node** \* **metadata**
- float **minBack**
- float **minFront**
- float **priority**
- struct **X3D\_Node** \* **source**
- int **spatialize**
- int **\_\_sourceNumber**
- struct **SFVec3f** **\_\_lastlocation**
- double **\_\_lasttime**

### 4.1309.1 Detailed Description

Definition at line 9551 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1310 X3D\_Sphere Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**

- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- float **radius**
- int **solid**
- struct **Multi\_Vec3f** **\_\_points**
- int **\_sideVBO**
- int **\_\_SphereIndxVBO**
- void \* **\_\_pindices**
- int **\_\_wireindicesVBO**

#### 4.1310.1 Detailed Description

Definition at line 9583 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1311 X3D\_SphereSensor Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **autoOffset**
- int **enabled**
- struct **SFRotation** **offset**
- int **isActive**
- struct **SFRotation** **rotation\_changed**
- struct **SFVec3f** **trackPoint\_changed**
- struct **SFVec3f** **\_oldtrackPoint**
- struct **SFRotation** **\_oldrotation**
- int **isOver**
- struct **Uni\_String** \* **description**
- struct **X3D\_Node** \* **metadata**
- struct **SFVec3f** **\_origPoint**
- struct **SFVec3f** **\_origNormalizedPoint**
- float **\_radius**
- int **\_\_oldEnabled**

### 4.1311.1 Detailed Description

Definition at line 9609 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1312 X3D\_SplinePositionInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- int **closed**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec3f** **keyValue**
- struct **Multi\_Vec3f** **keyVelocity**
- struct **X3D\_Node** \* **metadata**
- int **normalizeVelocity**
- struct **SFVec3f** **value\_changed**
- struct **Multi\_Vec3f** **\_T0**
- struct **Multi\_Vec3f** **\_T1**

### 4.1312.1 Detailed Description

Definition at line 9642 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1313 X3D\_SplinePositionInterpolator2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- int **closed**
- struct **Multi\_Float** **key**
- struct **Multi\_Vec2f** **keyValue**
- struct **Multi\_Vec2f** **keyVelocity**
- struct **X3D\_Node** \* **metadata**
- int **normalizeVelocity**
- struct **SFVec2f** **value\_changed**
- struct **Multi\_Vec2f** **\_T0**
- struct **Multi\_Vec2f** **\_T1**

### 4.1313.1 Detailed Description

Definition at line 9670 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1314 X3D\_SplineScalarInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**

- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- int **closed**
- struct **Multi\_Float** **key**
- struct **Multi\_Float** **keyValue**
- struct **Multi\_Float** **keyVelocity**
- struct **X3D\_Node** \* **metadata**
- int **normalizeVelocity**
- float **value\_changed**
- struct **Multi\_Float\_T0**
- struct **Multi\_Float\_T1**

#### 4.1314.1 Detailed Description

Definition at line 9698 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1315 X3D\_SpotLight Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **ambientIntensity**
- struct **SFVec3f** **attenuation**
- float **beamWidth**
- struct **SFColor** **color**
- float **cutOffAngle**
- struct **SFVec3f** **direction**
- int **global**
- float **intensity**
- struct **SFVec3f** **location**
- struct **X3D\_Node** \* **metadata**
- int **on**
- float **radius**
- struct **SFVec4f** **\_dir**
- struct **SFVec4f** **\_loc**
- struct **SFVec4f** **\_col**
- struct **SFVec4f** **\_amb**

### 4.1315.1 Detailed Description

Definition at line 9726 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1316 X3D\_SquadOrientationInterpolator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **set\_fraction**
- struct **Multi\_Float** **key**
- struct **Multi\_Rotation** **keyValue**
- struct **X3D\_Node** \* **metadata**
- int **normalizeVelocity**
- int **closed**
- struct **SFRotation** **value\_changed**
- struct **Multi\_Float** **\_normkey**
- struct **Multi\_Rotation** **\_normkeyValue**

### 4.1316.1 Detailed Description

Definition at line 9760 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1317 X3D\_StaticGroup Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Node** **children**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- struct **Multi\_Node** **\_\_sibAffectors**
- int **\_\_transparency**
- int **\_\_solid**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1317.1 Detailed Description

Definition at line 9787 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1318 X3D\_StringSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**

- struct **X3D\_Node** \* **\_executionContext**
- int **deletionAllowed**
- int **enabled**
- struct **Uni\_String** \* **enteredText**
- struct **Uni\_String** \* **finalText**
- int **isActive**
- struct **X3D\_Node** \* **metadata**
- int **singleton**
- int **\_initialized**
- int **\_\_oldEnabled**

#### 4.1318.1 Detailed Description

Definition at line 9813 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1319 X3D\_SurfaceEmitter Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_coordIndex**
- int **set\_coordinate**
- struct **X3D\_Node** \* **metadata**
- float **speed**
- float **variation**
- struct **Multi\_Int32** **coordIndex**
- float **mass**
- struct **X3D\_Node** \* **surface**
- float **surfaceArea**
- struct **X3D\_Node** \* **geometry**
- void \* **\_ifs**



### 4.1319.1 Detailed Description

Definition at line 9840 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1320 X3D\_Switch Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **choice**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- int **whichChoice**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **\_\_isX3D**

### 4.1320.1 Detailed Description

Definition at line 9869 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1321 X3D\_Teapot Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- int **solid**
- void \* **\_\_ifsnode**

### 4.1321.1 Detailed Description

Definition at line 9897 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1322 X3D\_TexCoordChaser2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- int **isActive**

- double **duration**
- double **\_bufferendtime**
- double **\_steptime**
- struct **Multi\_Vec2f** **value\_changed**
- struct **Multi\_Vec2f** **initialDestination**
- struct **Multi\_Vec2f** **initialValue**
- struct **Multi\_Vec2f** **set\_destination**
- struct **Multi\_Vec2f** **set\_value**
- void \* **\_buffer**
- struct **Multi\_Vec2f** **\_previousvalue**
- struct **Multi\_Vec2f** **\_destination**

### 4.1322.1 Detailed Description

Definition at line 9918 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1323 X3D\_TexCoordDamper2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- void \* **\_p**
- void \* **\_t**
- double **tau**
- float **tolerance**
- int **isActive**
- int **order**
- double **\_tau**
- double **\_lasttick**
- int **\_takefirstinput**
- struct **Multi\_Vec2f** **value\_changed**
- struct **Multi\_Vec2f** **initialDestination**
- struct **Multi\_Vec2f** **initialValue**
- struct **Multi\_Vec2f** **set\_destination**
- struct **Multi\_Vec2f** **set\_value**
- void \* **\_values**
- struct **Multi\_Vec2f** **\_input**

### 4.1323.1 Detailed Description

Definition at line 9951 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1324 X3D\_Text Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **fontStyle**
- struct **Multi\_Float** **length**
- float **maxExtent**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **string**
- struct **Multi\_Vec2f** **lineBounds**
- struct **SFVec3f** **origin**
- int **solid**
- struct **SFVec2f** **textBounds**
- int **\_isScreen**
- void \* **\_screendata**

### 4.1324.1 Detailed Description

Definition at line 9986 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1325 X3D\_TextureBackground Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_bind**
- struct **Multi\_Float** **groundAngle**
- struct **Multi\_Color** **groundColor**
- struct **Multi\_Float** **skyAngle**
- struct **Multi\_Color** **skyColor**
- double **bindTime**
- int **isBound**
- int **\_layerId**
- struct **X3D\_Node** \* **metadata**
- void \* **\_parentResource**
- struct **Multi\_Vec3f** **\_\_points**
- struct **Multi\_Vec3f** **\_\_colours**
- int **\_\_quadcount**
- int **\_\_VBO**
- struct **X3D\_Node** \* **frontTexture**
- struct **X3D\_Node** \* **backTexture**
- struct **X3D\_Node** \* **topTexture**
- struct **X3D\_Node** \* **bottomTexture**
- struct **X3D\_Node** \* **leftTexture**
- struct **X3D\_Node** \* **rightTexture**
- struct **Multi\_Float** **transparency**

### 4.1325.1 Detailed Description

Definition at line 10015 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1326 X3D\_TextureCoordinate Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2f** **point**

### 4.1326.1 Detailed Description

Definition at line 10054 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1327 X3D\_TextureCoordinate3D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec3f** **point**

### 4.1327.1 Detailed Description

Definition at line 10074 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1328 X3D\_TextureCoordinate4D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec4f** **point**

### 4.1328.1 Detailed Description

Definition at line 10094 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1329 X3D\_TextureCoordinateGenerator Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **mode**
- struct **Multi\_Float** **parameter**

### 4.1329.1 Detailed Description

Definition at line 10114 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1330 X3D\_TextureProperties Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **anisotropicDegree**
- struct **SFColorRGBA** **borderColor**
- int **borderWidth**
- struct **Uni\_String** \* **boundaryModeS**
- struct **Uni\_String** \* **boundaryModeT**
- struct **Uni\_String** \* **boundaryModeR**
- struct **Uni\_String** \* **magnificationFilter**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **minificationFilter**
- struct **Uni\_String** \* **textureCompression**
- float **texturePriority**
- int **generateMipMaps**

### 4.1330.1 Detailed Description

Definition at line 10135 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1331 X3D\_TextureTransform Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec2f** **center**
- struct **X3D\_Node** \* **metadata**
- float **rotation**
- struct **SFVec2f** **scale**
- struct **SFVec2f** **translation**

### 4.1331.1 Detailed Description

Definition at line 10165 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1332 X3D\_TextureTransform3D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **center**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **scale**
- struct **SFVec3f** **translation**

### 4.1332.1 Detailed Description

Definition at line 10188 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1333 X3D\_TextureTransformMatrix3D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **SFMatrix4f** **matrix**

### 4.1333.1 Detailed Description

Definition at line 10211 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1334 X3D\_TimeSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]

- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- double **cycleInterval**
- int **enabled**
- int **loop**
- struct **X3D\_Node** \* **metadata**
- double **pauseTime**
- double **resumeTime**
- double **startTime**
- double **stopTime**
- double **cycleTime**
- double **elapsedTime**
- float **fraction\_changed**
- int **isActive**
- double **isPaused**
- double **time**
- double **\_\_inittime**
- double **\_\_ctflag**
- int **\_\_oldEnabled**
- double **\_\_lasttime**

#### 4.1334.1 Detailed Description

Definition at line 10231 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1335 X3D\_TimeTrigger Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **set\_boolean**
- double **triggerTime**
- struct **X3D\_Node** \* **metadata**

### 4.1335.1 Detailed Description

Definition at line 10267 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1336 X3D\_ToneMappedVolumeStyle Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **surfaceNormals**
- struct **SFColorRGBA** **coolColor**
- struct **SFColorRGBA** **warmColor**

### 4.1336.1 Detailed Description

Definition at line 10288 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1337 X3D\_TouchSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **SFVec3f** **hitNormal\_changed**
- struct **SFVec3f** **hitPoint\_changed**
- struct **SFVec2f** **hitTexCoord\_changed**
- struct **SFVec3f** **\_oldhitNormal**
- struct **SFVec3f** **\_oldhitPoint**
- struct **SFVec2f** **\_oldhitTexCoord**
- int **isActive**
- int **isOver**
- struct **Uni\_String** \* **description**
- double **touchTime**
- struct **X3D\_Node** \* **metadata**
- int **\_\_oldEnabled**

### 4.1337.1 Detailed Description

Definition at line 10311 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1338 X3D\_TrackingSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**

- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **SFVec3f** **position**
- struct **SFRotation** **rotation**
- int **isActive**
- struct **Uni\_String** \* **description**
- struct **X3D\_Node** \* **metadata**
- int **isPositionAvailable**
- int **isRotationAvailable**

#### 4.1338.1 Detailed Description

Definition at line 10342 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1339 X3D\_Transform Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **SFVec3f** **center**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **scale**
- struct **SFRotation** **scaleOrientation**
- struct **SFVec3f** **translation**
- struct **SFVec3f** **bboxCenter**

- struct **SFVec3f** **bboxSize**
- int **\_\_do\_center**
- int **\_\_do\_trans**
- int **\_\_do\_rotation**
- int **\_\_do\_scaleO**
- int **\_\_do\_scale**
- int **\_\_do\_anything**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1339.1 Detailed Description

Definition at line 10368 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1340 X3D\_TransformSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **center**
- struct **SFVec3f** **size**
- int **enabled**
- int **isActive**
- struct **SFVec3f** **position\_changed**
- struct **SFRotation** **orientation\_changed**
- double **enterTime**
- double **exitTime**
- struct **X3D\_Node** \* **targetObject**
- struct **X3D\_Node** \* **metadata**
- int **\_\_hit**
- struct **SFVec3f** **\_\_t1**
- struct **SFRotation** **\_\_t2**
- int **\_\_oldEnabled**

### 4.1340.1 Detailed Description

Definition at line 10405 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1341 X3D\_TransmitterPdu Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- int **isActive**
- double **timestamp**
- struct **Uni\_String** \* **address**
- int **port**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isStandAlone**
- double **readInterval**
- double **writeInterval**
- int **rtpHeaderExpected**
- int **isRtpHeaderHeard**
- int **\_registered**
- struct **X3D\_Node** \* **\_dsock**
- double **\_lasttime**
- int **\_pduchange\_networksensor**
- struct **X3D\_Node** \* **\_oldState**
- int **entityID**
- int **applicationID**
- int **siteID**
- struct **Multi\_String** **geoSystem**
- struct **SFVec3d** **geoCoords**
- struct **X3D\_Node** \* **\_\_geoSystem**
- int **radioID**



- int **whichGeometry**
- int **radioEntityTypeKind**
- int **radioEntityTypeDomain**
- int **radioEntityTypeCountry**
- int **radioEntityTypeCategory**
- int **radioEntityTypeNomenclature**
- int **radioEntityTypeNomenclatureVersion**
- struct **SFVec3f** **antennaLocation**
- int **antennaPatternLength**
- int **antennaPatternType**
- struct **SFVec3f** **relativeAntennaLocation**
- int **inputSource**
- int **transmitState**
- float **power**
- int **frequency**
- float **transmitFrequencyBandwidth**
- int **lengthOfModulationParameters**
- int **modulationTypeDetail**
- int **modulationTypeMajor**
- int **modulationTypeSpreadSpectrum**
- int **modulationTypeSystem**
- int **cryptoSystem**
- int **cryptoKeyID**
- int **\_pduchange\_transmitter**

#### 4.1341.1 Detailed Description

Definition at line 10437 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1342 X3D\_TriangleFanSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **attrib**

- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **Multi\_Int32** **fanCount**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **\_coordIndex**

#### 4.1342.1 Detailed Description

Definition at line 10506 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1343 X3D\_TriangleSet Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **\_coordIndex**

### 4.1343.1 Detailed Description

Definition at line 10537 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1344 X3D\_TriangleSet2D Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Vec2f** **vertices**
- int **solid**
- struct **Multi\_Vec2f** **\_\_texCoords**
- void \* **\_\_wireindices**

### 4.1344.1 Detailed Description

Definition at line 10567 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1345 X3D\_TriangleStripSet Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **attrib**
- struct **X3D\_Node** \* **color**
- struct **X3D\_Node** \* **coord**
- struct **X3D\_Node** \* **fogCoord**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **normal**
- struct **Multi\_Int32** **stripCount**
- struct **X3D\_Node** \* **texCoord**
- int **ccw**
- int **colorPerVertex**
- int **normalPerVertex**
- int **solid**
- struct **Multi\_Int32** **\_coordIndex**

### 4.1345.1 Detailed Description

Definition at line 10590 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1346 X3D\_TwoSidedMaterial Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**

- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- float **ambientIntensity**
- float **backAmbientIntensity**
- struct **SFColor** **backDiffuseColor**
- struct **SFColor** **backEmissiveColor**
- float **backShininess**
- struct **SFColor** **backSpecularColor**
- float **backTransparency**
- struct **SFColor** **diffuseColor**
- struct **SFColor** **emissiveColor**
- struct **X3D\_Node** \* **metadata**
- float **shininess**
- int **separateBackColor**
- struct **SFColor** **specularColor**
- float **transparency**
- struct **Multi\_Float** **\_verifiedFrontColor**
- struct **Multi\_Float** **\_verifiedBackColor**

#### 4.1346.1 Detailed Description

Definition at line 10621 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1347 X3D\_UniversalJoint Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **anchorPoint**
- struct **SFVec3f** **axis1**
- struct **SFVec3f** **axis2**

- struct **X3D\_Node** \* **body1**
- struct **X3D\_Node** \* **body2**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **forceOutput**
- float **stop1Bounce**
- float **stop1ErrorCorrection**
- float **stop2Bounce**
- float **stop2ErrorCorrection**
- struct **SFVec3f** **body1AnchorPoint**
- struct **SFVec3f** **body1Axis**
- struct **SFVec3f** **body2AnchorPoint**
- struct **SFVec3f** **body2Axis**
- void \* **\_joint**
- int **\_forceout**
- struct **SFVec3f** **\_\_old\_anchorPoint**
- struct **SFVec3f** **\_\_old\_axis1**
- struct **SFVec3f** **\_\_old\_axis2**
- struct **X3D\_Node** \* **\_\_old\_body1**
- struct **X3D\_Node** \* **\_\_old\_body2**

#### 4.1347.1 Detailed Description

Definition at line 10655 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1348 X3D\_Viewpoint Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **\_layerId**
- int **\_donethispass**
- int **set\_bind**
- double **bindTime**
- int **isBound**
- struct **Uni\_String** \* **description**

- int **jump**
- float **fieldOfView**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **orientation**
- struct **SFVec3f** **position**
- struct **SFVec3f** **centerOfRotation**
- int **retainUserOffsets**
- struct **Uni\_String** \* **fovMode**
- float **aspectRatio**
- int **\_initializedOnce**
- struct **SFRotation** **\_orientation**
- struct **SFVec3f** **\_position**

### 4.1348.1 Detailed Description

Definition at line 10695 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1349 X3D\_ViewpointGroup Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **center**
- struct **Multi\_Node** **children**
- struct **Uni\_String** \* **description**
- int **displayed**
- struct **X3D\_Node** \* **metadata**
- int **retainUserOffsets**
- struct **SFVec3f** **size**
- struct **X3D\_Node** \* **\_\_proxNode**

### 4.1349.1 Detailed Description

Definition at line 10731 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1350 X3D\_Viewport Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- struct **Multi\_Node** **children**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_Float** **clipBoundary**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

### 4.1350.1 Detailed Description

Definition at line 10757 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1351 X3D\_Virt Struct Reference

### Data Fields

- void(\* **prep** )(void \*)
- void(\* **rend** )(void \*)
- void(\* **children** )(void \*)
- void(\* **fin** )(void \*)
- void(\* **rendray** )(void \*)
- void(\* **mkpolyrep** )(void \*)
- void(\* **proximity** )(void \*)
- void(\* **other** )(void \*)
- void(\* **collision** )(void \*)
- void(\* **compile** )(void \*, void \*, void \*, void \*, void \*, void \*)

### 4.1351.1 Detailed Description

Definition at line 37 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1352 X3D\_VisibilitySensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **center**
- int **enabled**
- struct **SFVec3f** **size**
- double **enterTime**
- double **exitTime**
- int **isActive**
- struct **X3D\_Node** \* **metadata**
- int **\_\_visible**
- int **\_\_occludeCheckCount**
- struct **Multi\_Vec3f** **\_\_points**
- int **\_\_Samples**
- int **\_\_oldEnabled**

### 4.1352.1 Detailed Description

Definition at line 10783 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1353 X3D\_VolumeData Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **dimensions**
- struct **X3D\_Node** \* **metadata**
- struct **X3D\_Node** \* **voxels**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- void \* **\_boxtris**
- struct **X3D\_Node** \* **renderStyle**

### 4.1353.1 Detailed Description

Definition at line 10813 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1354 X3D\_VolumeEmitter Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_Int32** **set\_coordIndex**
- int **set\_coordinate**
- struct **X3D\_Node** \* **coord**
- struct **SFVec3f** **direction**
- struct **X3D\_Node** \* **metadata**
- float **speed**
- float **variation**
- struct **Multi\_Int32** **coordIndex**
- int **internal**
- float **mass**
- float **surfaceArea**
- void \* **\_ifs**

### 4.1354.1 Detailed Description

Definition at line 10838 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1355 X3D\_VolumePickSensor Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]

- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- int **enabled**
- struct **X3D\_Node** \* **metadata**
- struct **Multi\_String** **objectType**
- struct **X3D\_Node** \* **pickingGeometry**
- struct **Multi\_Node** **pickTarget**
- int **isActive**
- struct **Multi\_Node** **pickedGeometry**
- struct **Uni\_String** \* **intersectionType**
- struct **Uni\_String** \* **sortOrder**
- struct **Uni\_String** \* **matchCriterion**
- int **\_\_oldEnabled**

#### 4.1355.1 Detailed Description

Definition at line 10868 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1356 X3D\_WindPhysicsModel Struct Reference

#### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFVec3f** **direction**
- int **enabled**
- float **gustiness**
- struct **X3D\_Node** \* **metadata**
- float **speed**
- float **turbulence**
- float **\_frameSpeed**

### 4.1356.1 Detailed Description

Definition at line 10897 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1357 X3D\_WorldInfo Struct Reference

### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **Multi\_String** **info**
- struct **Uni\_String** \* **title**
- struct **X3D\_Node** \* **metadata**

### 4.1357.1 Detailed Description

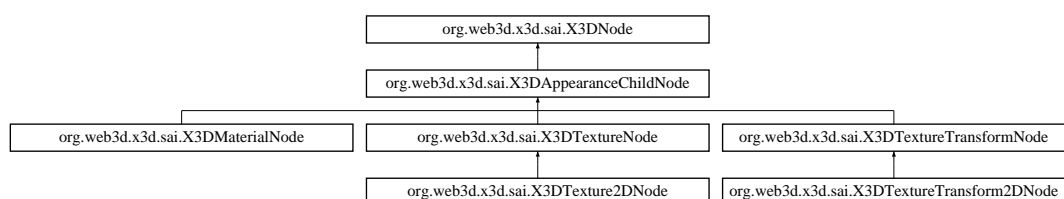
Definition at line 10922 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1358 org.web3d.x3d.sai.X3DAppearanceChildNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DAppearanceChildNode:



## Additional Inherited Members

### 4.1358.1 Detailed Description

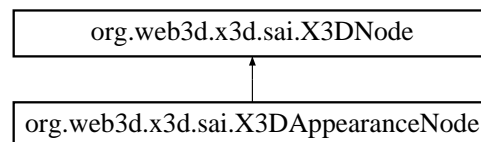
Definition at line 3 of file X3DAppearanceChildNode.java.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DAppearanceChildNode.java`

## 4.1359 `org.web3d.x3d.sai.X3DAppearanceNode` Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DAppearanceNode`:



## Additional Inherited Members

### 4.1359.1 Detailed Description

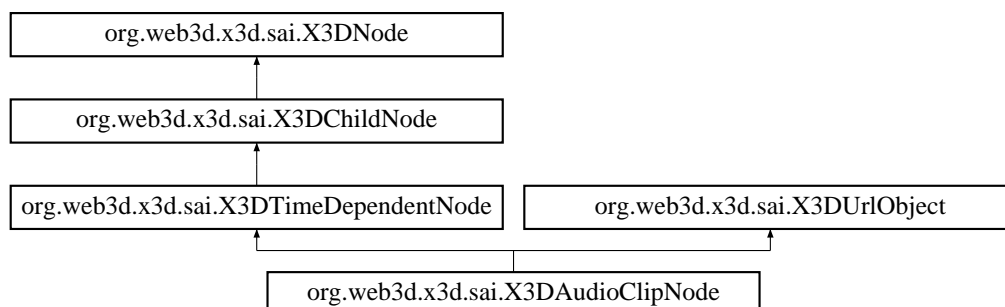
Definition at line 3 of file X3DAppearanceNode.java.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DAppearanceNode.java`

## 4.1360 `org.web3d.x3d.sai.X3DAudioClipNode` Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DAudioClipNode`:



## Public Member Functions

- String **getDescription** ()
- void **setDescription** ()
- float **getPitch** ()
- void **setPitch** (float pitch) throws InvalidFieldValueException
- double **getDuration** ()
- void **setDuration** (double time)

### 4.1360.1 Detailed Description

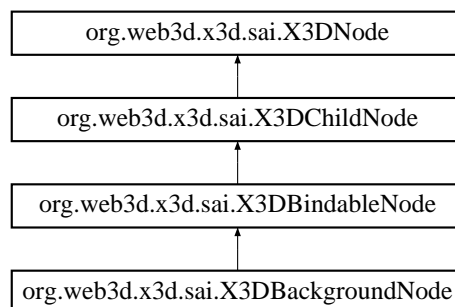
Definition at line 3 of file X3DAudioClipNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DAudioClipNode.java

## 4.1361 org.web3d.x3d.sai.X3DBackgroundNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DBackgroundNode:



## Public Member Functions

- int **getNumSkyAngle** ()
- void **getSkyAngle** (float[] angles)
- void **setSkyAngle** (float[] angles)
- int **getNumGroundAngle** ()
- void **getGroundAngle** (float[] angle)
- void **setGroundAngle** (float[] angle)
- int **getNumSkyColor** ()
- void **getSkyColor** (float[] colors)
- void **setSkyColor** (float[] colors)
- int **getNumGroundColor** ()
- void **getGroundColor** (float[] color)
- void **setGroundColor** (float[] color)

### 4.1361.1 Detailed Description

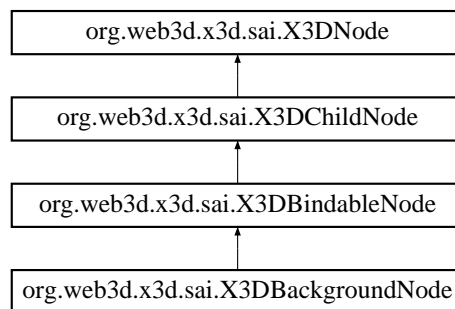
Definition at line 3 of file X3DBackgroundNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DBackgroundNode.java

## 4.1362 org.web3d.x3d.sai.X3DBindableNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DBindableNode:



### Public Member Functions

- void **setBind** (boolean enable)
- boolean **isBound** ()
- double **getBindTime** ()

### 4.1362.1 Detailed Description

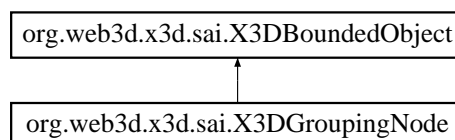
Definition at line 3 of file X3DBindableNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DBindableNode.java

## 4.1363 org.web3d.x3d.sai.X3DBoundedObject Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DBoundedObject:





### 4.1363.1 Detailed Description

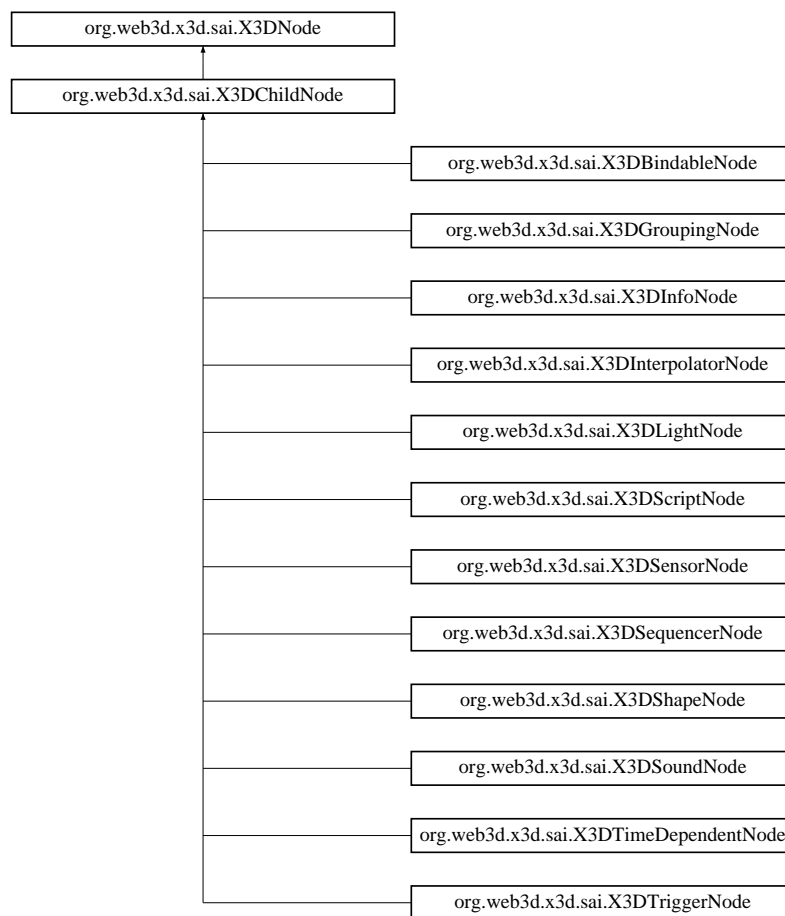
Definition at line 3 of file X3DBoundedObject.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DBoundedObject.java

## 4.1364 org.web3d.x3d.sai.X3DChildNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DChildNode:



### Additional Inherited Members

### 4.1364.1 Detailed Description

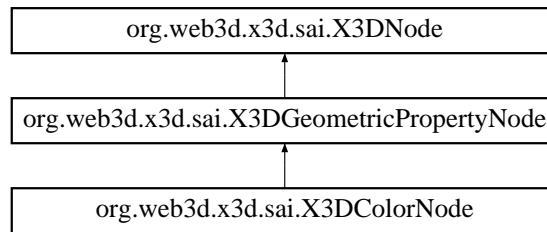
Definition at line 3 of file X3DChildNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DChildNode.java

## 4.1365 org.web3d.x3d.sai.X3DColorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DColorNode:



### Public Member Functions

- int **getNumColors** ()
- int **getNumComponents** ()
- void **setColor** (float[] colors)
- void **getColor** (float[] color)

### 4.1365.1 Detailed Description

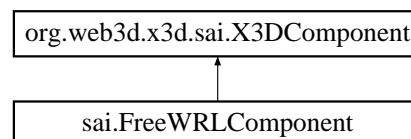
Definition at line 3 of file X3DColorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DColorNode.java

## 4.1366 org.web3d.x3d.sai.X3DComponent Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DComponent:



### Public Member Functions

- **ExternalBrowser** **getBrowser** ()
- Object **getImplementation** ()
- void **shutdown** ()

### 4.1366.1 Detailed Description

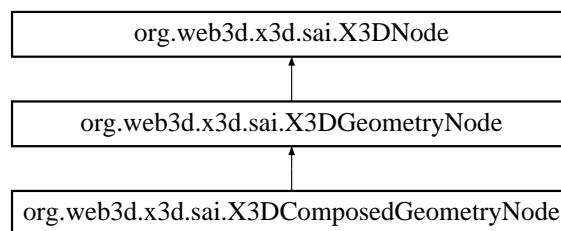
Definition at line 3 of file X3DComponent.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DComponent.java

## 4.1367 org.web3d.x3d.sai.X3DComposedGeometryNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DComposedGeometryNode:



### Public Member Functions

- **X3DNode** **getColor** ()
- void **setColor** ( **X3DColorNode** node)
- void **setColor** ( **X3DProtoInstance** comp)
- **X3DNode** **getCoord** ()
- void **setCoord** ( **X3DCoordinateNode** node)
- void **setCoord** ( **X3DProtoInstance** node)
- **X3DNode** **getTexCoord** ()
- void **setTexCoord** ( **X3DTextureCoordinateNode** node)
- void **setTexCoord** ( **X3DProtoInstance** node)
- **X3DNode** **getNormal** ()
- void **setNormal** ( **X3DNormalNode** node)
- void **setNormal** ( **X3DProtoInstance** node)
- boolean **getIsSolid** ()
- void **setIsSolid** (boolean solid)
- boolean **getIsCCW** ()
- void **setIsCCW** (boolean ccw)
- boolean **getColorPerVertex** ()
- void **setColorPerVertex** (boolean perVertex)
- boolean **getNormalPerVertex** ()
- void **setNormalPerVertex** (boolean perVertex)

### 4.1367.1 Detailed Description

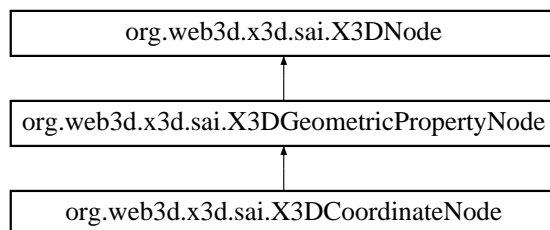
Definition at line 3 of file X3DComposedGeometryNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DComposedGeometryNode.java

## 4.1368 org.web3d.x3d.sai.X3DCoordinateNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DCoordinateNode:



### Public Member Functions

- int **getNumCoordinates** ()
- void **setPoint** (float[] points)
- void **getPoint** (float[] points)

### 4.1368.1 Detailed Description

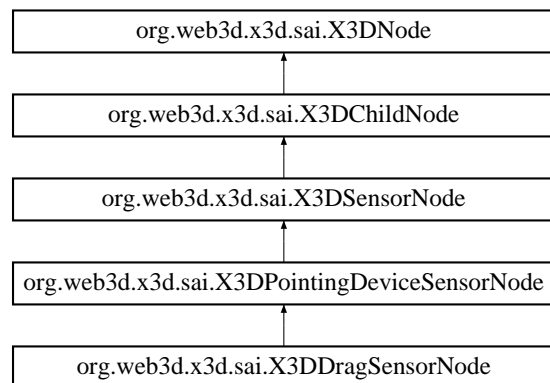
Definition at line 3 of file X3DCoordinateNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DCoordinateNode.java

## 4.1369 org.web3d.x3d.sai.X3DDragSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DDragSensorNode:



### Public Member Functions

- void **setAutoOffset** (boolean newAutoOffset)
- boolean **getAutoOffset** ()
- void **getTrackPoint** (float[] points)

### 4.1369.1 Detailed Description

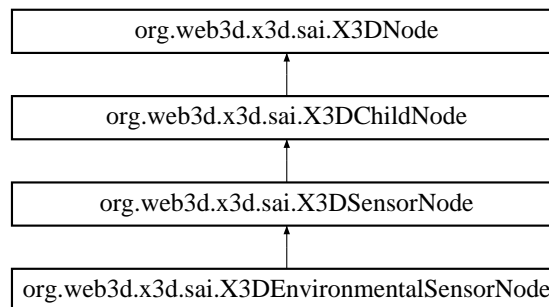
Definition at line 3 of file X3DDragSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DDragSensorNode.java

## 4.1370 org.web3d.x3d.sai.X3DEnvironmentalSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DEnvironmentalSensorNode:



### Public Member Functions

- double **getEnterTime** ()
- double **getExitTime** ()
- void **getCenter** (float[] pos)
- void **setCenter** (float[] pos)
- void **getSize** (float[] size)
- void **setSize** (float[] size)

### 4.1370.1 Detailed Description

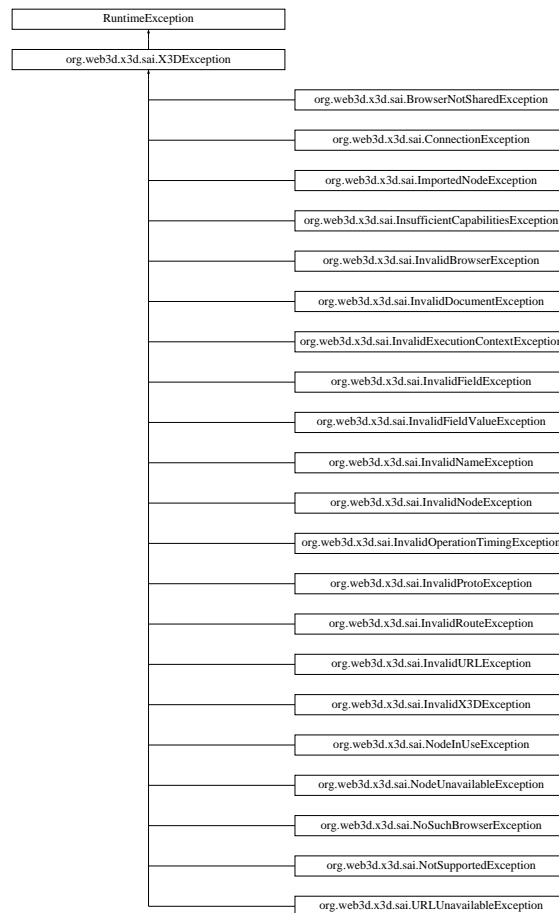
Definition at line 3 of file X3DEnvironmentalSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DEnvironmentalSensorNode.java

## 4.1371 org.web3d.x3d.sai.X3DException Class Reference

Inheritance diagram for org.web3d.x3d.sai.X3DException:



### Public Member Functions

- **X3DException** (String msg)

#### 4.1371.1 Detailed Description

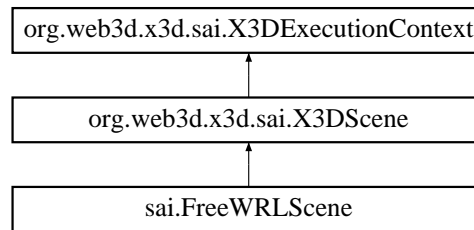
Definition at line 3 of file X3DException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DException.java

## 4.1372 org.web3d.x3d.sai.X3DExecutionContext Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DExecutionContext:



### Public Member Functions

- String **getSpecificationVersion** () throws InvalidExecutionContextException
- int **getEncoding** () throws InvalidExecutionContextException
- **ProfileInfo** **getProfile** () throws InvalidExecutionContextException
- **ComponentInfo[]** **getComponents** () throws InvalidExecutionContextException
- String **getWorldURL** () throws InvalidExecutionContextException
- **X3DNode** **getNamedNode** (String nodeName) throws InvalidExecutionContextException, Node←UnavailableException, InvalidNameException
- **X3DNode** **getImportedNode** (String nodeName) throws InvalidExecutionContextException, Node←UnavailableException, InvalidNameException
- **X3DNode** **createNode** (String nodeName) throws InvalidExecutionContextException, InvalidName←Exception
- **X3DProtoInstance** **createProto** (String protoName) throws InvalidExecutionContextException, Invalid←NameException
- void **updateNamedNode** (String nodeName, **X3DNode** nodeRef) throws InvalidExecutionContextException, InvalidNameException, ImportedNodeException
- void **updateImportedNode** (String nodeName, String importedName, **X3DNode** nodeRef) throws Invalid←ExecutionContextException, InvalidNameException, ImportedNodeException
- void **removeNamedNode** (String nodeName) throws InvalidExecutionContextException, InvalidName←Exception
- void **removeImportedNode** (String nodeName) throws InvalidExecutionContextException, InvalidName←Exception
- **X3DProtoDeclaration** **getProtoDeclaration** (String protoName) throws InvalidExecutionContextException, InvalidNameException
- void **updateProtoDeclaration** (String protoName, **X3DProtoDeclaration** newDeclaration) throws Invalid←ExecutionContextException, InvalidNameException
- void **removeProtoDeclaration** (String protoName) throws InvalidExecutionContextException, Invalid←NameException
- **X3DExternProtoDeclaration** **getExternProtoDeclaration** (String protoName) throws InvalidExecution←ContextException, InvalidNameException, URLUnavailableException
- void **updateExternProtoDeclaration** (String protoName, **X3DExternProtoDeclaration** newDeclaration) throws InvalidExecutionContextException
- void **removeExternProtoDeclaration** (String protoName) throws InvalidExecutionContextException
- **X3DNode[]** **getRootNodes** () throws InvalidExecutionContextException
- **X3DRoute[]** **getRoutes** () throws InvalidExecutionContextException
- **X3DRoute** **addRoute** ( **X3DNode** startNode, String starttName, **X3DNode** endNode, String endEvent) throws InvalidExecutionContextException, InvalidNodeException, InvalidFieldException
- void **removeRoute** ( **X3DRoute** route) throws InvalidExecutionContextException

#### 4.1372.1 Detailed Description

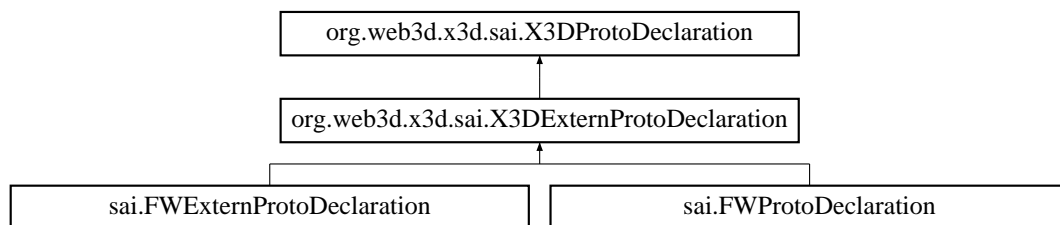
Definition at line 3 of file X3DExecutionContext.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DExecutionContext.java

### 4.1373 org.web3d.x3d.sai.X3DExternProtoDeclaration Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DExternProtoDeclaration:



#### Public Member Functions

- `int getLoadState ()` throws `InvalidOperationTimingException`, `InvalidProtoException`
- `void loadNow ()` throws `InvalidOperationTimingException`, `InvalidProtoException`

#### 4.1373.1 Detailed Description

Definition at line 3 of file X3DExternProtoDeclaration.java.

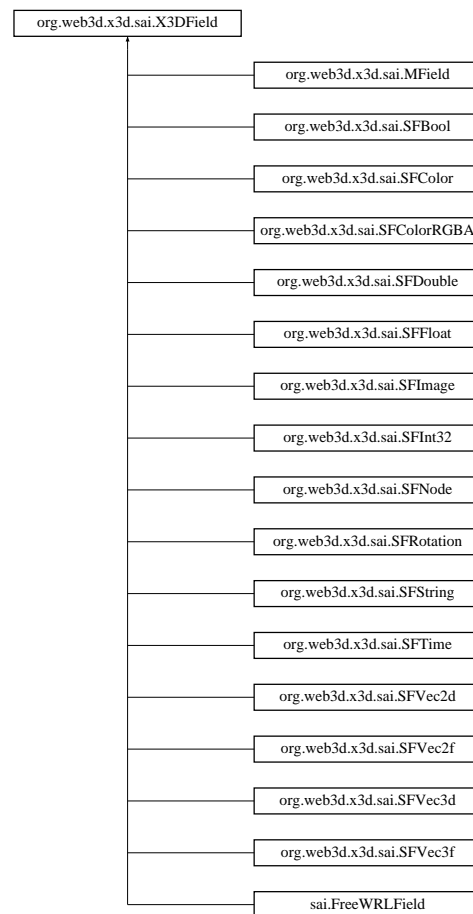
The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DExternProtoDeclaration.java

### 4.1374 org.web3d.x3d.sai.X3DField Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DField:





## Public Member Functions

- **X3DFieldDefinition** **getDefinition** () throws InvalidFieldException, ConnectionException
- boolean **isReadable** () throws InvalidFieldException, ConnectionException
- boolean **isWritable** () throws InvalidFieldException, ConnectionException
- void **addX3DEventListener** ( **X3DFieldEventListener** l) throws InvalidFieldException, ConnectionException
- void **removeX3DEventListener** ( **X3DFieldEventListener** l) throws InvalidFieldException, ConnectionException
- void **setUserData** (Object data) throws InvalidFieldException, ConnectionException
- Object **getUserData** () throws InvalidFieldException, ConnectionException
- void **dispose** ()

### 4.1374.1 Detailed Description

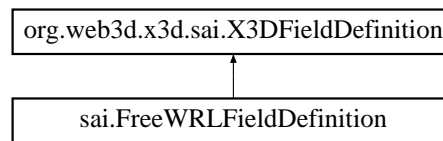
Definition at line 3 of file X3DField.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DField.java

## 4.1375 org.web3d.x3d.sai.X3DFieldDefinition Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DFieldDefinition:



### Public Member Functions

- String **getName** ()
- int **getAccessType** ()
- int **getFieldType** ()
- String **getFieldTypeString** ()

### 4.1375.1 Detailed Description

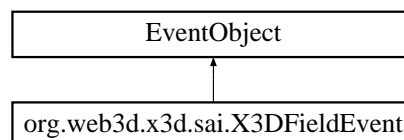
Definition at line 3 of file X3DFieldDefinition.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DFieldDefinition.java

## 4.1376 org.web3d.x3d.sai.X3DFieldEvent Class Reference

Inheritance diagram for org.web3d.x3d.sai.X3DFieldEvent:



### Public Member Functions

- **X3DFieldEvent** (Object src, double t, Object d)
- double **getTime** ()
- Object **getData** ()

### 4.1376.1 Detailed Description

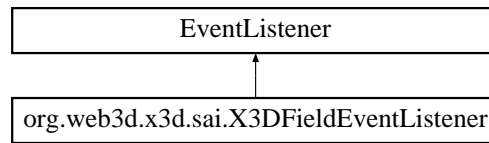
Definition at line 4 of file X3DFieldEvent.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DFieldEvent.java

## 4.1377 org.web3d.x3d.sai.X3DFieldEventListener Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DFieldEventListener:



### Public Member Functions

- void **readableFieldChanged** ( **X3DFieldEvent** evt)

### 4.1377.1 Detailed Description

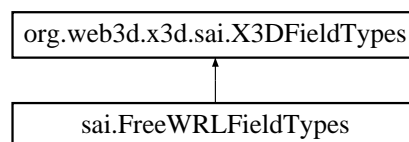
Definition at line 3 of file `X3DFieldEventListener.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DFieldEventListener.java`

## 4.1378 org.web3d.x3d.sai.X3DFieldTypes Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DFieldTypes:



### Data Fields

- int **INPUT\_ONLY** = 1
- int **INITIALIZE\_ONLY** = 2
- int **INPUT\_OUTPUT** = 3
- int **OUTPUT\_ONLY** = 4
- int **SFBOOL** = 1
- int **MFBOOL** = 2
- int **SFCOLOR** = 21
- int **MFCOLOR** = 22
- int **SFCOLORRGBA** = 23
- int **MFCOLORRGBA** = 24
- int **SFDOUBLE** = 7
- int **MFDOUBLE** = 8
- int **SFFLOAT** = 5

- int **MFLOAT** = 6
- int **SFIMAGE** = 25
- int **MFIMAGE** = 26
- int **SFINT32** = 3
- int **MFINT32** = 4
- int **SFNODE** = 11
- int **MFNODE** = 12
- int **SFROTATION** = 19
- int **MFROTATION** = 20
- int **SFSTRING** = 27
- int **MFSTRING** = 28
- int **SFTIME** = 9
- int **MFTIME** = 10
- int **SFVEC2F** = 13
- int **MFVEC2F** = 14
- int **SFVEC3F** = 15
- int **MFVEC3F** = 16
- int **SFVEC3D** = 17
- int **MFVEC3D** = 18
- int **SFVEC2D** = 29
- int **MFVEC2D** = 30

#### 4.1378.1 Detailed Description

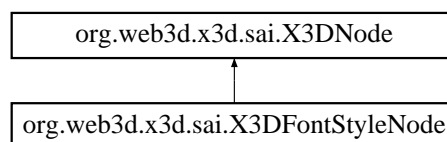
Definition at line 3 of file X3DFieldTypes.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DFieldTypes.java

### 4.1379 org.web3d.x3d.sai.X3DFontStyleNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DFontStyleNode:



#### Public Member Functions

- Font **getFont** ()
- int **getHorizontalJustification** ()
- int **getVerticalJustification** ()
- float **getSpacing** ()
- float **getSize** ()
- boolean **isTopToBottom** ()
- boolean **isLeftToRight** ()

## Data Fields

- int **PLAIN\_STYLE** = java.awt.Font.PLAIN
- int **ITALIC\_STYLE** = java.awt.Font.ITALIC
- int **BOLD\_STYLE** = java.awt.Font.BOLD
- int **BOLDITALIC\_STYLE** = java.awt.Font.BOLD + java.awt.Font.ITALIC
- int **BEGIN\_JUSTIFY** = 1
- int **END\_JUSTIFY** = 2
- int **MIDDLE\_JUSTIFY** = 3
- int **FIRST\_JUSTIFY** = 4

### 4.1379.1 Detailed Description

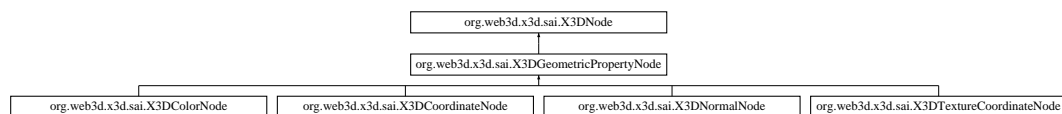
Definition at line 4 of file X3DFontStyleNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DFontStyleNode.java

## 4.1380 org.web3d.x3d.sai.X3DGeometricPropertyNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DGeometricPropertyNode:



## Additional Inherited Members

### 4.1380.1 Detailed Description

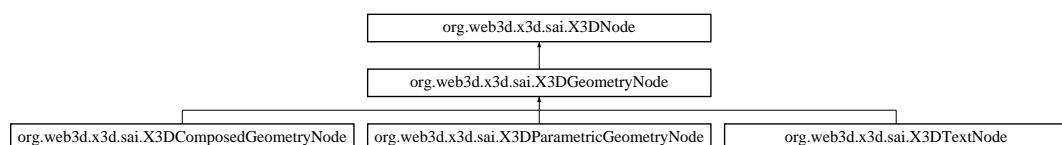
Definition at line 3 of file X3DGeometricPropertyNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DGeometricPropertyNode.java

## 4.1381 org.web3d.x3d.sai.X3DGeometryNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DGeometryNode:



## Additional Inherited Members

### 4.1381.1 Detailed Description

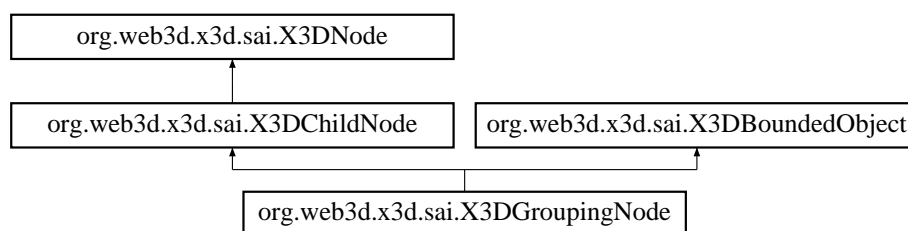
Definition at line 3 of file X3DGeometryNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DGeometryNode.java

## 4.1382 org.web3d.x3d.sai.X3DGroupingNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DGroupingNode:



## Public Member Functions

- void **getChildren** ( `X3DNode[]` nodes)
- void **setChildren** ( `X3DNode[]` kids) throws `InvalidNodeException`
- void **addChildren** ( `X3DNode[]` added) throws `InvalidNodeException`
- void **removeChildren** ( `X3DNode[]` removed) throws `InvalidNodeException`
- void **removeChild** ( `X3DNode` removed) throws `InvalidNodeException`
- int **getNumChildren** ()

### 4.1382.1 Detailed Description

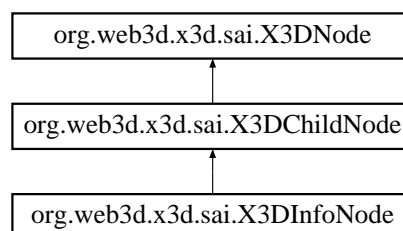
Definition at line 3 of file X3DGroupingNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DGroupingNode.java

## 4.1383 org.web3d.x3d.sai.X3DInfoNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DInfoNode:



## Additional Inherited Members

### 4.1383.1 Detailed Description

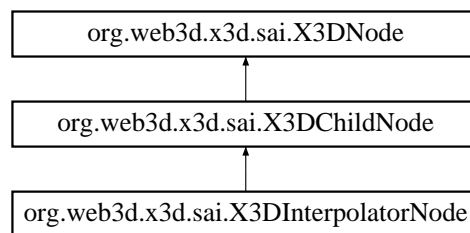
Definition at line 3 of file X3DInfoNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DInfoNode.java

## 4.1384 org.web3d.x3d.sai.X3DInterpolatorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DInterpolatorNode:



## Public Member Functions

- void **setFraction** (float value)
- int **getNumKeys** ()
- void **setKey** (float[] keys)
- void **getKey** (float[] keys)

### 4.1384.1 Detailed Description

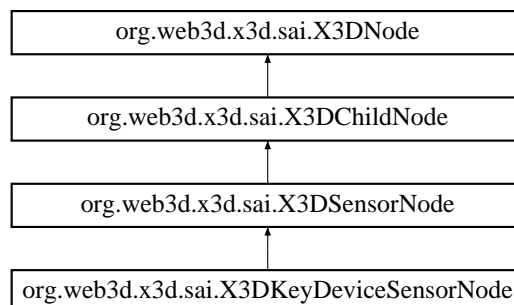
Definition at line 3 of file X3DInterpolatorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DInterpolatorNode.java

## 4.1385 org.web3d.x3d.sai.X3DKeyDeviceSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DKeyDeviceSensorNode:



## Additional Inherited Members

### 4.1385.1 Detailed Description

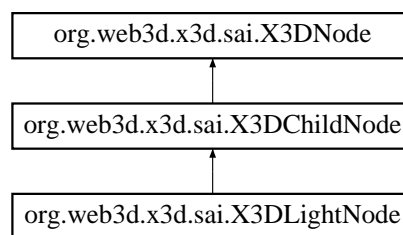
Definition at line 3 of file X3DKeyDeviceSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DKeyDeviceSensorNode.java

## 4.1386 org.web3d.x3d.sai.X3DLightNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DLightNode:



## Public Member Functions

- boolean **getOn** ()
- void **setOn** (boolean state)
- float **getAmbientIntensity** ()
- void **setAmbientIntensity** (float intensity) throws InvalidFieldValueException
- void **getColor** (float[] color)
- void **setColor** (float[] color) throws InvalidFieldValueException
- void **getIntensity** ()
- void **setIntensity** (float newIntensity) throws InvalidFieldValueException

### 4.1386.1 Detailed Description

Definition at line 3 of file X3DLightNode.java.

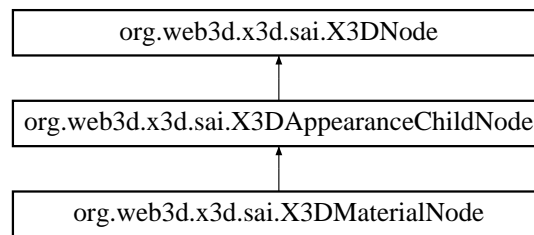
The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DLightNode.java



## 4.1387 org.web3d.x3d.sai.X3DMaterialNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DMaterialNode:



### Additional Inherited Members

#### 4.1387.1 Detailed Description

Definition at line 3 of file X3DMaterialNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DMaterialNode.java

## 4.1388 org.web3d.x3d.sai.X3DMetadataObject Interface Reference

### Public Member Functions

- void **setStandard** (String std)
- String **getStandard** ()
- void **setName** (String name)
- String **getName** ()

#### 4.1388.1 Detailed Description

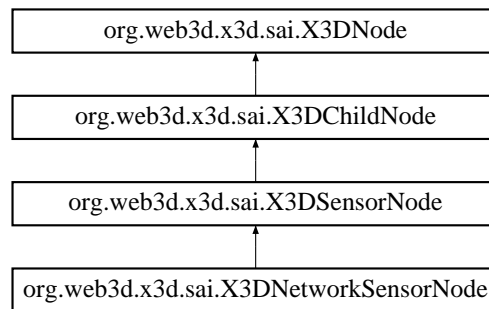
Definition at line 3 of file X3DMetadataObject.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DMetadataObject.java

## 4.1389 org.web3d.x3d.sai.X3DNetworkSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DNetworkSensorNode:



### Additional Inherited Members

#### 4.1389.1 Detailed Description

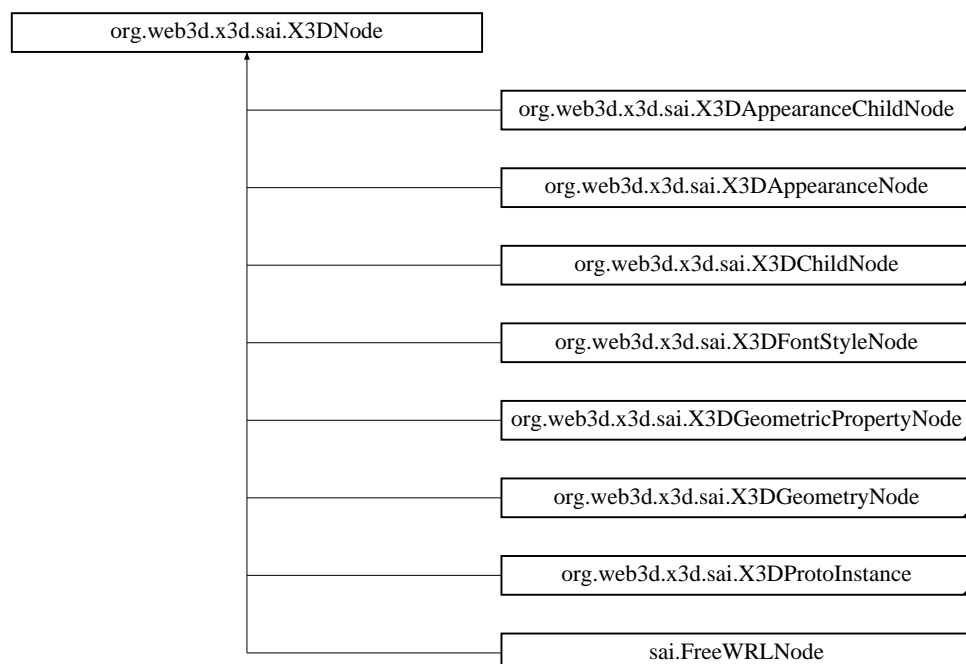
Definition at line 3 of file X3DNetworkSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DNetworkSensorNode.java

## 4.1390 org.web3d.x3d.sai.X3DNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DNode:



## Public Member Functions

- void **setMetadata** ( **X3DMetadataObject** data) throws InvalidNodeException, ConnectionException
- **X3DMetadataObject** **getMetadata** () throws InvalidNodeException, ConnectionException
- String **getNodeName** () throws InvalidNodeException, ConnectionException
- **X3DFieldDefinition**[] **getFieldDefinitions** () throws InvalidNodeException, ConnectionException
- int[] **getNodeType** () throws InvalidNodeException, ConnectionException
- **X3DField** **getField** (String name) throws InvalidNameException, InvalidNodeException, ConnectionException
- void **dispose** ()

### 4.1390.1 Detailed Description

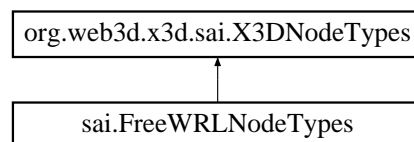
Definition at line 3 of file X3DNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DNode.java

## 4.1391 org.web3d.x3d.sai.X3DNodeTypes Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DNodeTypes:



## Data Fields

- int **X3DBoundedObject** = 1
- int **X3DBounded2DObject** = 2
- int **X3DURLObject** = 3
- int **X3DAppearanceNode** = 10
- int **X3DAppearanceChildNode** = 11
- int **X3DMaterialNode** = 12
- int **X3DTextureNode** = 13
- int **X3DTexture2DNode** = 14
- int **X3DTexture3DNode** = 15
- int **X3DTextureTransformNode** = 16
- int **X3DTextureTransform2DNode** = 17
- int **X3DGeometryNode** = 18
- int **X3DTextNode** = 19
- int **X3DParametricGeometryNode** = 20
- int **X3DGeometricPropertyNode** = 21
- int **X3DColorNode** = 22
- int **X3DCoordinateNode** = 23
- int **X3DNormalNode** = 24

- int **X3DTextureCoordinateNode** = 25
- int **X3DFontStyleNode** = 26
- int **X3DProtoInstance** = 27
- int **X3DChildNode** = 28
- int **X3DBindableNode** = 29
- int **X3DBackgroundNode** = 30
- int **X3DGroupingNode** = 31
- int **X3DShapeNode** = 32
- int **X3DInterpolatorNode** = 33
- int **X3DLightNode** = 34
- int **X3DScriptNode** = 35
- int **X3DSensorNode** = 36
- int **X3DEnvironmentalSensorNode** = 37
- int **X3DKeyDeviceSensorNode** = 38
- int **X3DNetworkSensorNode** = 39
- int **X3DPointingDeviceSensorNode** = 40
- int **X3DDragSensorNode** = 41
- int **X3DTouchSensorNode** = 42
- int **X3DSequencerNode** = 43
- int **X3DTimeDependentNode** = 44
- int **X3DSoundSourceNode** = 45
- int **X3DTriggerNode** = 46
- int **X3DInfoNode** = 47

#### 4.1391.1 Detailed Description

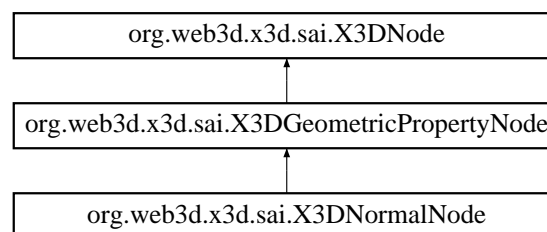
Definition at line 3 of file X3DNodeTypes.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DNodeTypes.java

### 4.1392 org.web3d.x3d.sai.X3DNormalNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DNormalNode:



#### Public Member Functions

- int **getNumNormals** ()
- void **setVector** (float[] value)
- void **getVector** (float[] value)

### 4.1392.1 Detailed Description

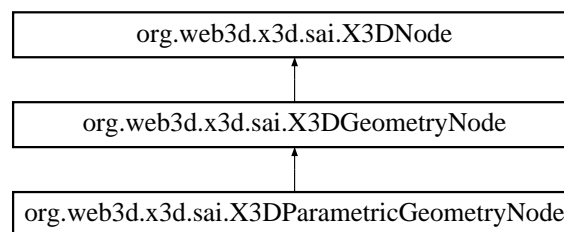
Definition at line 3 of file X3DNormalNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DNormalNode.java

## 4.1393 org.web3d.x3d.sai.X3DParametricGeometryNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DParametricGeometryNode:



### Additional Inherited Members

### 4.1393.1 Detailed Description

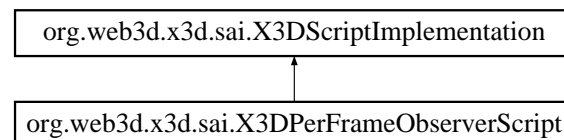
Definition at line 3 of file X3DParametricGeometryNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DParametricGeometryNode.java

## 4.1394 org.web3d.x3d.sai.X3DPerFrameObserverScript Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DPerFrameObserverScript:



### Public Member Functions

- void **prepareEvents** ()

#### 4.1394.1 Detailed Description

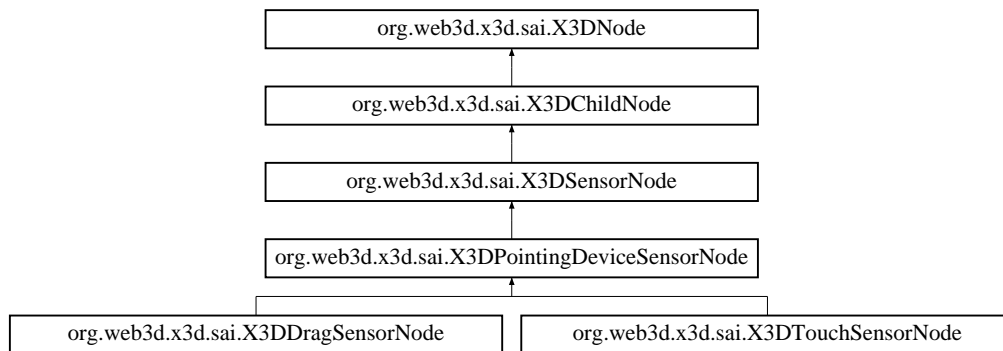
Definition at line 3 of file X3DPerFrameObserverScript.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DPerFrameObserverScript.java

### 4.1395 org.web3d.x3d.sai.X3DPointingDeviceSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DPointingDeviceSensorNode:



#### Additional Inherited Members

#### 4.1395.1 Detailed Description

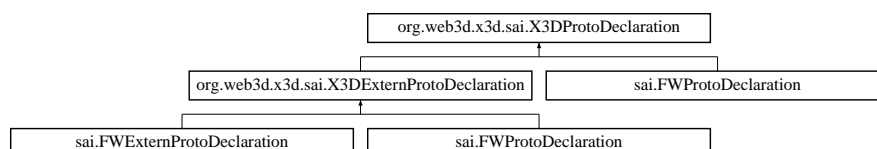
Definition at line 3 of file X3DPointingDeviceSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DPointingDeviceSensorNode.java

### 4.1396 org.web3d.x3d.sai.X3DProtoDeclaration Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DProtoDeclaration:



## Public Member Functions

- **X3DProtoInstance** **createInstance** () throws `InvalidOperationTimingException`, `InvalidProtoException`
- **X3DFieldDefinition[]** **getFieldDefinitions** () throws `InvalidOperationTimingException`, `InvalidProtoException`
- void **dispose** ()

### 4.1396.1 Detailed Description

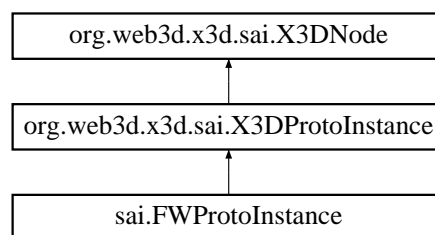
Definition at line 3 of file `X3DProtoDeclaration.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DProtoDeclaration.java`

## 4.1397 org.web3d.x3d.sai.X3DProtoInstance Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DProtoInstance`:



## Public Member Functions

- `int[]` **getImplementationTypes** ()

### 4.1397.1 Detailed Description

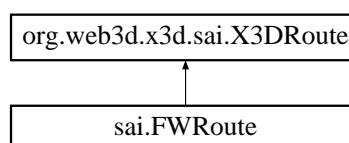
Definition at line 3 of file `X3DProtoInstance.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DProtoInstance.java`

## 4.1398 org.web3d.x3d.sai.X3DRoute Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DRoute`:



## Public Member Functions

- **X3DNode getSourceNode** () throws InvalidOperationTimingException, InvalidRouteException
- String **getSourceField** () throws InvalidOperationTimingException, InvalidRouteException
- **X3DNode getDestinationNode** () throws InvalidOperationTimingException, InvalidRouteException
- String **getDestinationField** () throws InvalidOperationTimingException, InvalidRouteException
- void **dispose** () throws InvalidOperationTimingException

### 4.1398.1 Detailed Description

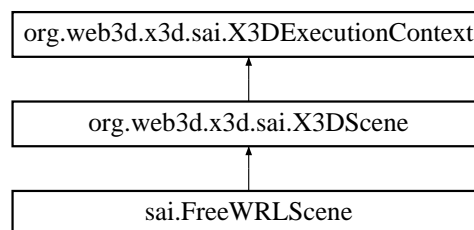
Definition at line 3 of file X3DRoute.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DRoute.java

## 4.1399 org.web3d.x3d.sai.X3DScene Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DScene:



## Public Member Functions

- String **getMetaData** (String **key**) throws InvalidExecutionContextException
- void **setMetaData** (String **key**, String value) throws InvalidExecutionContextException
- **X3DNode getExportedNode** (String nodeName) throws InvalidExecutionContextException, Node↔UnavailableException, InvalidNameException
- void **updateExportedNode** (String nodeName, String newName) throws InvalidExecutionContextException, InvalidNameException
- void **removeExportedNode** (String nodeName) throws InvalidExecutionContextException, InvalidName↔Exception
- void **addRootNode** ( **X3DNode** rootNode) throws InvalidExecutionContextException, NodeInUseException, InsufficientCapabilitiesException
- void **removeRootNode** ( **X3DNode** rootNode) throws InvalidExecutionContextException
- void **dispose** ()

### 4.1399.1 Detailed Description

Definition at line 3 of file X3DScene.java.

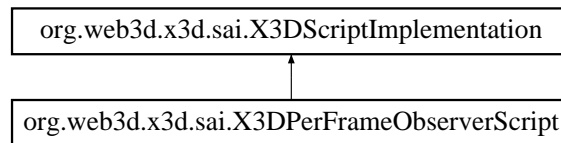
The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DScene.java



## 4.1400 org.web3d.x3d.sai.X3DScriptImplementation Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DScriptImplementation:



### Public Member Functions

- void **setBrowser** ( **Browser** browser)
- void **setFields** ( **X3DScriptNode** externalView, java.util.Map fields)
- void **initialize** ()
- void **eventsProcessed** ()
- void **shutdown** ()

#### 4.1400.1 Detailed Description

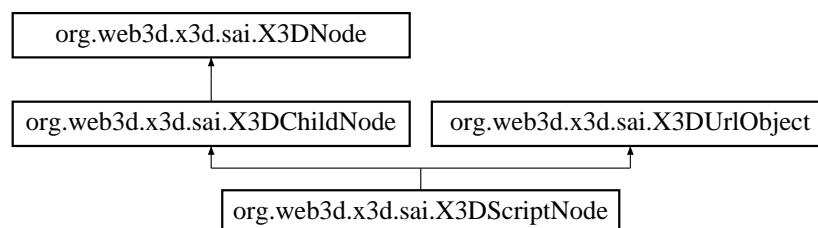
Definition at line 3 of file `X3DScriptImplementation.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DScriptImplementation.java`

## 4.1401 org.web3d.x3d.sai.X3DScriptNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DScriptNode:



### Additional Inherited Members

#### 4.1401.1 Detailed Description

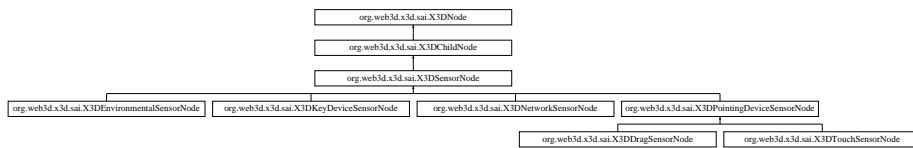
Definition at line 3 of file `X3DScriptNode.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DScriptNode.java`

## 4.1402 org.web3d.x3d.sai.X3DSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DSensorNode:



### Public Member Functions

- void **setEnabled** (boolean state)
- boolean **getEnabled** ()
- boolean **getIsActive** ()

#### 4.1402.1 Detailed Description

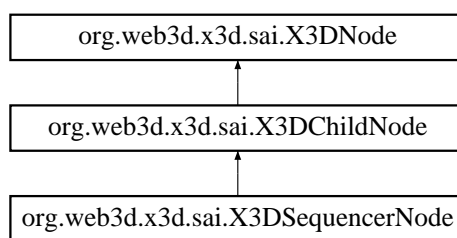
Definition at line 3 of file X3DSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSensorNode.java

## 4.1403 org.web3d.x3d.sai.X3DSequencerNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DSequencerNode:



### Public Member Functions

- void **setFraction** (float fraction)
- int **getNumKey** ()
- void **getKey** (float[] keys)
- void **setKey** (float[] keys)
- int **getNumKeyValue** ()

### 4.1403.1 Detailed Description

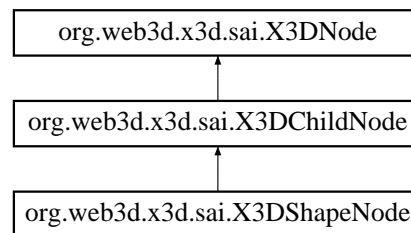
Definition at line 3 of file X3DSequencerNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSequencerNode.java

## 4.1404 org.web3d.x3d.sai.X3DShapeNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DShapeNode:



### Public Member Functions

- **X3DNode** **getAppearance** ()
- void **setAppearance** ( **X3DAppearanceNode** app)
- void **setAppearance** ( **X3DProtolInstance** app)
- **X3DNode** **getGeometry** ()
- void **setGeometry** ( **X3DGeometryNode** geom)
- void **setGeometry** ( **X3DProtolInstance** geom)

### 4.1404.1 Detailed Description

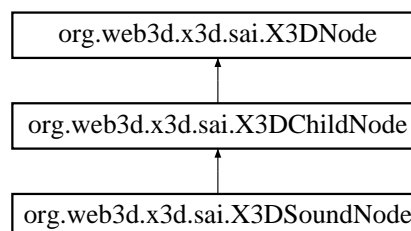
Definition at line 3 of file X3DShapeNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DShapeNode.java

## 4.1405 org.web3d.x3d.sai.X3DSoundNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DSoundNode:



## Additional Inherited Members

### 4.1405.1 Detailed Description

Definition at line 3 of file X3DSoundNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSoundNode.java

## 4.1406 org.web3d.x3d.sai.X3DSoundSourceNode Interface Reference

### Public Member Functions

- float **getPitch** ()
- void **setPitch** (float pitch) throws InvalidFieldValueException
- void **setDescription** (String text)
- String **getDescription** (String text)

### 4.1406.1 Detailed Description

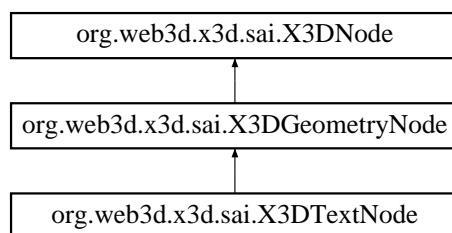
Definition at line 3 of file X3DSoundSourceNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSoundSourceNode.java

## 4.1407 org.web3d.x3d.sai.X3DTextNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextNode:



### Public Member Functions

- void **setFontStyle** ( X3DFontStyleNode fs)
- void **setFontStyle** ( X3DProtoInstance fs)
- X3DNode **getFontStyle** ()
- int **getNumText** ()
- void **setText** (String[] text)
- void **getText** (String[] text)

### 4.1407.1 Detailed Description

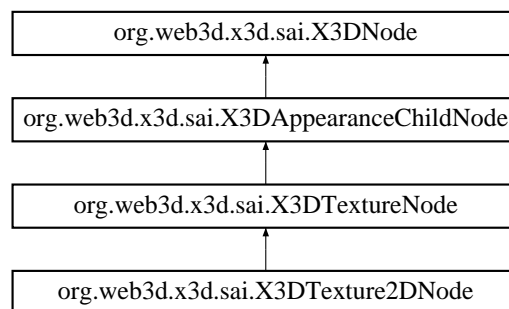
Definition at line 3 of file X3DTextNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextNode.java

## 4.1408 org.web3d.x3d.sai.X3DTexture2DNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTexture2DNode:



### Public Member Functions

- void **setRepeatS** (boolean state)
- boolean **getRepeatS** ()
- void **setRepeatT** (boolean state)
- boolean **getRepeatT** ()

### 4.1408.1 Detailed Description

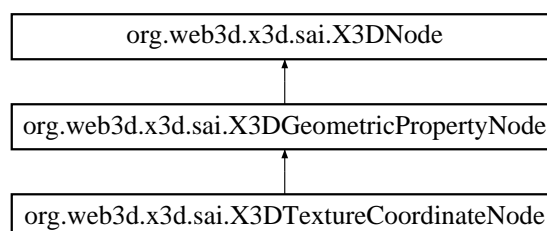
Definition at line 3 of file X3DTexture2DNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTexture2DNode.java

## 4.1409 org.web3d.x3d.sai.X3DTextureCoordinateNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextureCoordinateNode:



## Public Member Functions

- int **getNumCoordinates** ()
- int **getNumComponents** ()
- void **setPoint** (float[] points)
- void **getPoint** (float[] points)

### 4.1409.1 Detailed Description

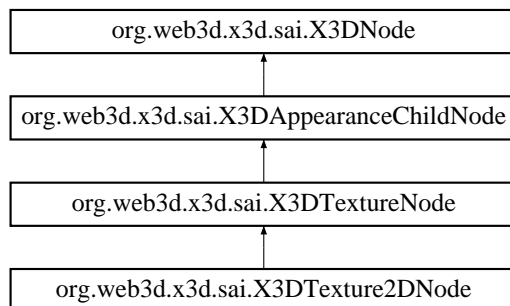
Definition at line 3 of file X3DTextureCoordinateNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextureCoordinateNode.java

## 4.1410 org.web3d.x3d.sai.X3DTextureNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextureNode:



## Additional Inherited Members

### 4.1410.1 Detailed Description

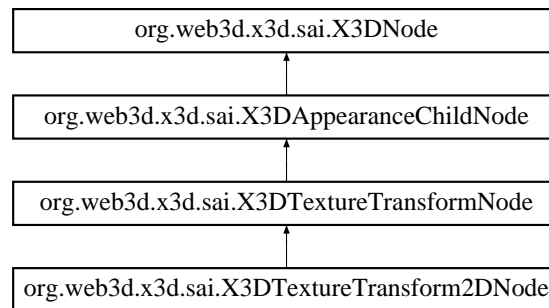
Definition at line 3 of file X3DTextureNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextureNode.java

## 4.1411 org.web3d.x3d.sai.X3DTextureTransform2DNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextureTransform2DNode:



### Public Member Functions

- void **getCenter** (float[] position)
- void **setCenter** (float[] position)
- float **getRotation** ()
- void **setRotation** (float angle)
- void **getScale** (float[] scale)
- void **setScale** (float[] scale)
- void **getTranslation** (float[] trans)
- void **setTranslation** (float[] trans)

### 4.1411.1 Detailed Description

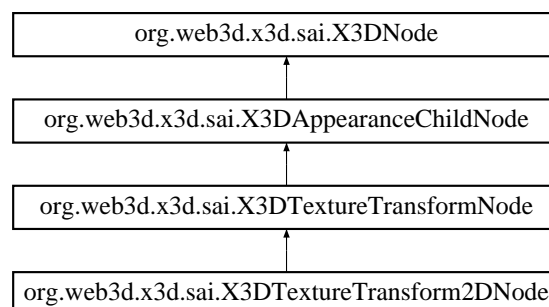
Definition at line 3 of file X3DTextureTransform2DNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextureTransform2DNode.java

## 4.1412 org.web3d.x3d.sai.X3DTextureTransformNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextureTransformNode:



## Additional Inherited Members

### 4.1412.1 Detailed Description

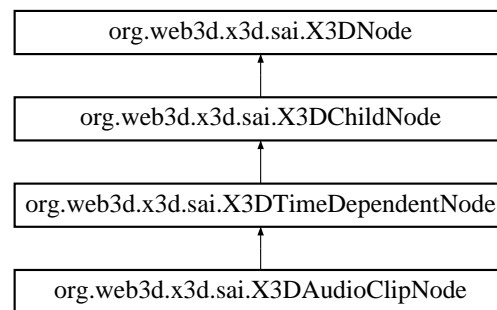
Definition at line 3 of file X3DTextureTransformNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextureTransformNode.java

## 4.1413 org.web3d.x3d.sai.X3DTimeDependentNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTimeDependentNode:



## Public Member Functions

- boolean **getIsActive** ()
- boolean **getIsPaused** ()
- double **getElapsedTime** ()
- void **setNumLoops** (float count)
- float **getNumLoops** ()
- void **setLoop** (boolean loop)
- boolean **getLoop** ()
- void **setStartTime** (double time)
- double **getStartTime** ()
- void **setStopTime** (double time)
- double **getStopTime** ()
- void **setPauseTime** (double time)
- double **getPauseTime** ()
- void **setUnPauseTime** (double time)
- double **getUnPauseTime** ()

### 4.1413.1 Detailed Description

Definition at line 3 of file X3DTimeDependentNode.java.

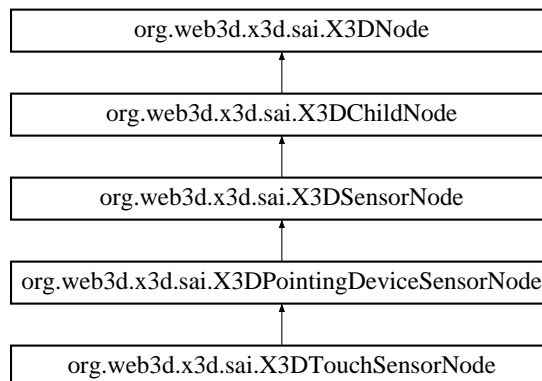
The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTimeDependentNode.java



## 4.1414 org.web3d.x3d.sai.X3DTouchSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTouchSensorNode:



### Public Member Functions

- boolean **getIsOver** ()
- double **getEnterTime** ()
- double **getTouchTime** ()

#### 4.1414.1 Detailed Description

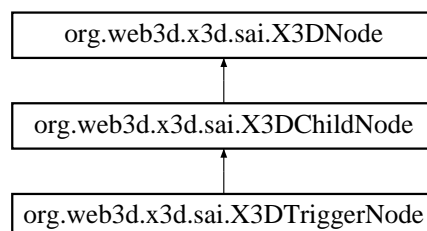
Definition at line 3 of file X3DTouchSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTouchSensorNode.java

## 4.1415 org.web3d.x3d.sai.X3DTriggerNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTriggerNode:



## Additional Inherited Members

### 4.1415.1 Detailed Description

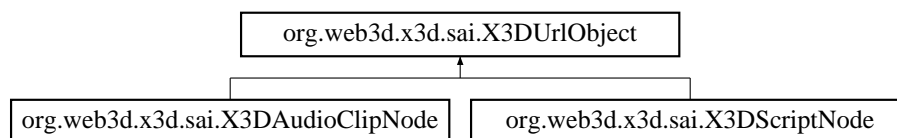
Definition at line 3 of file X3DTriggerNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTriggerNode.java

## 4.1416 org.web3d.x3d.sai.X3DUrlObject Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DUrlObject:



## Public Member Functions

- int **getNumUrls** ()
- void **geturl** (String[] urls)
- void **setUrl** (String[] urls)

### 4.1416.1 Detailed Description

Definition at line 3 of file X3DUrlObject.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DUrlObject.java

## 4.1417 xml\_user\_data Struct Reference

### Data Fields

- **Stack \* context**
- **Stack \* nodes**
- **Stack \* atts**
- **Stack \* modes**
- **Stack \* fields**

### 4.1417.1 Detailed Description

Definition at line 89 of file X3DParser.c.

The documentation for this struct was generated from the following file:

- src/lib/x3d\_parser/X3DParser.c

## 4.1418 XY Struct Reference

### Data Fields

- int **x**
- int **y**

### 4.1418.1 Detailed Description

Definition at line 212 of file CursorDraw.c.

The documentation for this struct was generated from the following file:

- src/lib/ui/CursorDraw.c

## 4.1419 zip64\_internal Struct Reference

### Data Fields

- **zlib\_filefunc64\_32\_def** z\_filefunc
- voidpf **filestream**
- **linkedlist\_data** central\_dir
- int **in\_opened\_file\_inzip**
- **curfile64\_info** ci
- ZPOS64\_T **begin\_pos**
- ZPOS64\_T **add\_position\_when\_writing\_offset**
- ZPOS64\_T **number\_entry**
- char \* **globalcomment**

### 4.1419.1 Detailed Description

Definition at line 165 of file zip.c.

The documentation for this struct was generated from the following file:

- src/libminizip/zip.c

## 4.1420 zip\_fileinfo Struct Reference

### Data Fields

- **tm\_zip** **tmz\_date**
- uLong **dosDate**
- uLong **internal\_fa**
- uLong **external\_fa**

### 4.1420.1 Detailed Description

Definition at line 99 of file zip.h.

The documentation for this struct was generated from the following file:

- src/libminizip/zip.h

## 4.1421 zlib\_filefunc64\_32\_def\_s Struct Reference

### Data Fields

- **zlib\_filefunc64\_def** **zfile\_func64**
- open\_file\_func **zopen32\_file**
- tell\_file\_func **ztell32\_file**
- seek\_file\_func **zseek32\_file**

### 4.1421.1 Detailed Description

Definition at line 170 of file ioapi.h.

The documentation for this struct was generated from the following file:

- src/libminizip/ioapi.h

## 4.1422 zlib\_filefunc64\_def\_s Struct Reference

### Data Fields

- open64\_file\_func **zopen64\_file**
- read\_file\_func **zread\_file**
- write\_file\_func **zwrite\_file**
- tell64\_file\_func **ztell64\_file**
- seek64\_file\_func **zseek64\_file**
- close\_file\_func **zclose\_file**
- testerror\_file\_func **zerror\_file**
- voidpf **opaque**

### 4.1422.1 Detailed Description

Definition at line 154 of file ioapi.h.

The documentation for this struct was generated from the following file:

- src/libminizip/ioapi.h

## 4.1423 zlib\_filefunc\_def\_s Struct Reference

### Data Fields

- open\_file\_func **zopen\_file**
- read\_file\_func **zread\_file**
- write\_file\_func **zwrite\_file**
- tell\_file\_func **ztell\_file**
- seek\_file\_func **zseek\_file**
- close\_file\_func **zclose\_file**
- testerror\_file\_func **zerror\_file**
- voidpf **opaque**

### 4.1423.1 Detailed Description

Definition at line 138 of file ioapi.h.

The documentation for this struct was generated from the following file:

- src/libminizip/ioapi.h

## 4.1424 zone Struct Reference

### Data Fields

- char \* **name**
- **Point** **center**
- **Point** \* **poly**
- int **n**
- char \* **ssrname**
- void \* **ssr**
- void \* **next**

### 4.1424.1 Detailed Description

Definition at line 543 of file SSRServer.c.

The documentation for this struct was generated from the following file:

- src/SSR/SSRServer.c



# Index

- [\\_AnyNative](#), 57
- [\\_Atlas](#), 57
- [\\_AtlasEntry](#), 58
- [\\_AtlasFont](#), 58
- [\\_BUTitem](#), 59
- [\\_BrowserNative](#), 59
- [\\_CRnodeStruct](#), 60
- [\\_FW\\_PluginInstance](#), 60
- [\\_GLwDrawingAreaClassPart](#), 61
- [\\_GLwDrawingAreaClassRec](#), 62
- [\\_GLwDrawingAreaRec](#), 62
- [\\_GUIElement](#), 62
- [\\_NPByteRange](#), 72
- [\\_NPEmbedPrint](#), 73
- [\\_NPFullPrint](#), 73
- [\\_NPImageExpose](#), 74
- [\\_NPNetscapeFuncs](#), 74
- [\\_NPP](#), 75
- [\\_NPPluginFuncs](#), 76
- [\\_NPPrint](#), 76
- [\\_NPRect](#), 77
- [\\_NPSavedData](#), 77
- [\\_NPSize](#), 77
- [\\_NPStream](#), 78
- [\\_NPString](#), 78
- [\\_NPVariant](#), 78
- [\\_NPWindow](#), 79
- [\\_SFColorNative](#), 80
- [\\_SFColorRGBANative](#), 80
- [\\_SFImageNative](#), 81
- [\\_SFNodeNative](#), 81
- [\\_SFRotationNative](#), 81
- [\\_SFVec2fNative](#), 82
- [\\_SFVec3dNative](#), 82
- [\\_SFVec3fNative](#), 82
- [\\_SFVec4dNative](#), 83
- [\\_SFVec4fNative](#), 83
- [\\_X3DNode](#), 84
- [\\_cd\\_list\\_t](#), 59
- [\\_contenttype](#), 60
- [\\_geosys](#), 61
- [\\_intX3DEventIn](#), 72
- [\\_intX3D\\_MFBool](#), 63
- [\\_intX3D\\_MFColor](#), 63
- [\\_intX3D\\_MFColorRGBA](#), 63
- [\\_intX3D\\_MFFloat](#), 64
- [\\_intX3D\\_MFImage](#), 64
- [\\_intX3D\\_MFInt32](#), 64
- [\\_intX3D\\_MFNode](#), 65
- [\\_intX3D\\_MFRotation](#), 65
- [\\_intX3D\\_MFString](#), 65
- [\\_intX3D\\_MFTime](#), 66
- [\\_intX3D\\_MFVec2d](#), 66
- [\\_intX3D\\_MFVec2f](#), 66
- [\\_intX3D\\_MFVec3d](#), 67
- [\\_intX3D\\_MFVec3f](#), 67
- [\\_intX3D\\_SFBool](#), 67
- [\\_intX3D\\_SFColor](#), 68
- [\\_intX3D\\_SFColorRGBA](#), 68
- [\\_intX3D\\_SFFloat](#), 68
- [\\_intX3D\\_SFImage](#), 69
- [\\_intX3D\\_SFInt32](#), 69
- [\\_intX3D\\_SFNode](#), 69
- [\\_intX3D\\_SFRotation](#), 70
- [\\_intX3D\\_SFString](#), 70
- [\\_intX3D\\_SFTime](#), 70
- [\\_intX3D\\_SFVec2d](#), 71
- [\\_intX3D\\_SFVec2f](#), 71
- [\\_intX3D\\_SFVec3d](#), 71
- [\\_intX3D\\_SFVec3f](#), 72
- [\\_s\\_list\\_t](#), 79
- [\\_urlRequest](#), 83
- [AcknowledgePdu](#), 84
- [AcknowledgeReliablePdu](#), 85
- [AcousticBeamData](#), 85
- [AcousticBeamFundamentalParameter](#), 86
- [AcousticEmitter](#), 86
- [AcousticEmitterSystem](#), 87
  - [acousticFunction](#), 87
  - [acousticID](#), 87
- [AcousticEmitterSystemData](#), 88
  - [beamRecords](#), 88
- [acousticFunction](#)
  - [AcousticEmitterSystem](#), 87
- [acousticID](#)
  - [AcousticEmitterSystem](#), 87
- [ActionRequestPdu](#), 89
- [ActionRequestReliablePdu](#), 90
- [ActionResponsePdu](#), 90
- [ActionResponseReliablePdu](#), 91
- [ActiveRegion](#), 91
- [AggregateID](#), 92
- [AggregateMarking](#), 92
- [AggregateStatePdu](#), 93
  - [pad2](#), 94
- [AggregateType](#), 94
- [allocateMenuID](#)
  - [nsIPluginManager2](#), 468

- allowComments
  - cson\_parse\_opt, 170
- AngularVelocityVector, 95
- AntennaLocation, 95
- anyVrml, 95
- ApaData, 96
- api
  - cson\_value, 173
- Arc, 96
- ArcSdirSorter, 98
- ArcSorter, 98
- ArcTdirSorter, 99
- ArcTessellator, 100
- ArealObjectStatePdu, 100
- ArgListType, 101
- ArticulationParameter, 101
- AtlasEntrySet, 102
- Backend, 102
- BasePlugin, 104
- BasicCurveEvaluator, 105
- BasicSurfaceEvaluator, 105
- BeamAntennaPattern, 107
  - beamDirection, 107
- BeamData, 108
  - beamSweepSync, 108
- beamDirection
  - BeamAntennaPattern, 107
- beamParameterIndex
  - ElectronicEmissionBeamData, 228
- beamRecords
  - AcousticEmitterSystemData, 88
- beamSweepSync
  - BeamData, 108
  - FundamentalParameterData, 283
- beginWaitCursor
  - nsIPluginManager2, 468
- BezierArc, 108
- bezierPatch, 109
- bezierPatchMesh, 110
- Bin, 110
- bindablestack, 111
- block, 111
- Breakpt, 112
- brotoDefpair, 112
- brotoIS, 113
- brotoRoute, 113
- brouteEnd, 114
- Buffer, 122
- BurstDescriptor, 123
- CachedVertex, 123
- CachingEvaluator, 123
- callback
  - JSON\_config, 362
- callback\_ctx
  - JSON\_config, 363
- capacity
  - cson\_buffer, 163
- cbDataExactName, 124
- cbDataRootNameAndRouteDir, 125
- CdllFreeWRL, 125
- chardata, 126
- chaser\_ptrs, 127
- cleanup
  - cson\_value\_api, 174
- cline, 127
- ClockTime, 127
- coded\_block\_pattern\_entry, 128
- CollisionElasticPdu, 128
  - unitSurfaceNormal, 129
- CollisionPdu, 129
- colorScheme, 130
- command, 130
- CommentPdu, 131
- CommentReliablePdu, 131
- connection\_info\_struct, 132
- consoleLine, 134
- contenttype\_captiontext, 151
- contenttype\_e3dmouse, 151
- contenttype\_layer, 152
- contenttype\_multitouch, 152
- contenttype\_orientation, 153
- contenttype\_quadrant, 153
- contenttype\_scene, 153
- contenttype\_splitter, 154
- contenttype\_statusbar, 154
- contenttype\_stereo\_anaglyph, 154
- contenttype\_stereo\_shutter, 155
- contenttype\_stereo\_sidebyside, 155
- contenttype\_stereo\_updown, 155
- contenttype\_switch, 156
- contenttype\_textpanel, 156
- contenttype\_texturegrid, 157
- CoveAndTiler, 157
- CPlugin, 158
  - CPlugin, 158
- CR\_RegStruct, 159
- CreateEntityPdu, 159
- CreateEntityReliablePdu, 160
- createPluginInstance
  - nsIPlugin, 431
  - nsIPluginOld, 472
- createWidget
  - nsIPluginInstanceOwner, 454
- CRjsnameStruct, 160
- CRscriptStruct, 161
- CRStruct, 161
- cson\_array, 162
- cson\_buffer, 162
  - capacity, 163
  - mem, 163
  - timesExpanded, 163
  - used, 164
- cson\_data\_source\_StringSource\_, 164
  - pos, 165
- cson\_kv, 165



- cson\_kv\_list, 166
- cson\_object, 166
- cson\_object\_iterator, 167
- cson\_output\_opt, 167
  - escapeForwardSlashes, 168
  - indentation, 168
  - maxDepth, 168
- cson\_parse\_info, 169
- cson\_parse\_opt, 170
  - allowComments, 170
- cson\_parser, 170
- cson\_string, 171
- cson\_value, 172
  - api, 173
  - refcount, 173
  - value, 173
- cson\_value\_api, 174
  - cleanup, 174
- cson\_value\_list, 175
- curfile64\_info, 175
- currayhit, 176
- Curve, 176
- curveEvalMachine, 177
- Curvelist, 177
  
- damper\_ptr, 178
- DataPdu, 178
- DataQueryPdu, 179
  - timeInterval, 179
- DataQueryReliablePdu, 180
- DataReliablePdu, 180
- datChnk, 181
- dct\_dc\_size\_entry, 181
- DDS\_header, 182
- DdsLoadInfo, 182
- DeadReckoningParameter, 183
- deallocateMenuID
  - nsIPluginManager2, 468
- depth
  - JSON\_config, 363
- depth\_slice, 183
- DesignatorPdu, 184
- destroy
  - nsIPluginInstanceOld, 449
- DetonationPdu, 185
  - locationInEntityCoordinates, 185
- Dict, 186
- DictNode, 186
- directedLine, 187
- dis\_class, 188
- dis\_socket, 188
- disfieldattr, 189
- DisplayList, 189
- DistributedEmissionsFamilyPdu, 190
- Dlnode, 190
- DOMElement
  - nsIPluginTagInfo, 481
  - nsIPluginTagInfo2, 485
- draw\_call\_params, 191
  
- duk\_\_bigint, 192
- duk\_\_compile\_raw\_args, 192
- duk\_\_compiler\_stkstate, 192
- duk\_\_decode\_context, 193
- duk\_\_encode\_context, 193
- duk\_\_exp\_limits, 193
- duk\_\_id\_lookup\_result, 194
- duk\_\_numconv\_stringify\_ctx, 194
- duk\_\_objlit\_state, 195
- duk\_\_pcall\_prop\_args, 195
- duk\_\_re\_disjunction\_info, 195
- duk\_\_transform\_context, 196
- duk\_activation, 196
- duk\_bitdecoder\_ctx, 197
- duk\_bitencoder\_ctx, 197
- duk\_breakpoint, 197
- duk\_bufwriter\_ctx, 198
- duk\_catcher, 198
- duk\_compiler\_ctx, 199
- duk\_compiler\_func, 199
- duk\_compiler\_instr, 200
- duk\_double\_union, 201
- duk\_function\_list\_entry, 201
- duk\_harray, 202
- duk\_hbuffer, 202
- duk\_hbuffer\_dynamic, 202
- duk\_hbuffer\_external, 203
- duk\_hbuffer\_fixed, 203
- duk\_hbufobj, 203
- duk\_hcompfunc, 204
- duk\_heap, 204
- duk\_heaphdr, 205
- duk\_heaphdr\_string, 205
- duk\_hnatfunc, 206
- duk\_hobject, 206
- duk\_hstring, 207
- duk\_hstring\_external, 207
- duk\_hthread, 208
- duk\_internal\_thread\_state, 208
- duk\_ispec, 209
- duk\_ivalue, 209
- duk\_jmpbuf, 209
- duk\_json\_dec\_ctx, 210
- duk\_json\_enc\_ctx, 210
- duk\_labelinfo, 211
- duk\_lexer\_codepoint, 211
- duk\_lexer\_ctx, 212
- duk\_lexer\_point, 212
- duk\_ljstate, 213
- duk\_memory\_functions, 213
- duk\_number\_list\_entry, 213
- duk\_propaccessor, 214
- duk\_propdesc, 214
- duk\_propvalue, 215
- duk\_re\_compiler\_ctx, 215
- duk\_re\_matcher\_ctx, 215
- duk\_re\_token, 216
- duk\_strcache, 216

- duk\_strtab\_entry, 217
- duk\_thread\_state, 217
- duk\_time\_components, 217
- duk\_token, 218
- duk\_tval\_unused, 218
  
- EAI\_Extra\_Data, 219
- EAI\_ListenerStruct, 219
- EAINodeIndexStruct, 224
- EAINodeParams, 224
- EdgePair, 226
- effectiveRadiatedPower
  - FundamentalParameterData, 283
- EightByteChunk, 227
- ElectronicEmissionBeamData, 227
  - beamParameterIndex, 228
- ElectronicEmissionsPdu, 228
- ElectronicEmissionSystemData, 229
  - numberOfBeams, 229
  - systemDataLength, 229
- ellipsoid, 230
- EmitterSystem, 230
- endWaitCursor
  - nsIPluginManager2, 469
- EntityID, 230
- EntityInformationFamilyPdu, 231
- EntityManagementFamilyPdu, 231
- EntityStatePdu, 232
- EntityStateUpdatePdu, 233
- EntityType, 233
- Environment, 234
- EnvironmentalProcessPdu, 234
- escapeForwardSlashes
  - cson\_output\_opt, 168
- EventID, 235
- EventReportPdu, 260
- EventReportReliablePdu, 260
- extrusion, 261
  
- FaceCount, 262
- FastEntityStatePdu, 262
- field\_info, 265
- FieldDecl, 265
- file\_in\_zip64\_read\_info\_s, 267
- findProxyForURL
  - nsIPluginHost, 435
  - nsIPluginManager2, 469
- FirePdu, 267
- FirstStruct, 268
- FixedDatum, 268
- Flist, 269
- FlistSorter, 269
- flychord, 270
- fmtChnk, 270
- FourByteChunk, 271
- free
  - JSON\_config, 363
- freewrl\_params, 271
- freeWRLSAI\_cpp::\_SAIParameter, 80
- freeWRLSAI\_cpp::browserNotSharedException, 121
- freeWRLSAI\_cpp::connectionException, 133
- freeWRLSAI\_cpp::disposedException, 190
- freeWRLSAI\_cpp::insufficientCapabilitiesException, 334
- freeWRLSAI\_cpp::invalidAccessTypeException, 338
- freeWRLSAI\_cpp::invalidBrowserException, 338
- freeWRLSAI\_cpp::invalidDocumentException, 339
- freeWRLSAI\_cpp::invalidExecutionContextException, 343
- freeWRLSAI\_cpp::invalidFieldException, 346
- freeWRLSAI\_cpp::invalidImportException, 347
- freeWRLSAI\_cpp::invalidNodeException, 349
- freeWRLSAI\_cpp::invalidOperationTimingException, 351
- freeWRLSAI\_cpp::InvalidReadableFieldException, 352
- freeWRLSAI\_cpp::invalidUrlException, 354
- freeWRLSAI\_cpp::InvalidWritableFieldException, 356
- freeWRLSAI\_cpp::invalidX3DException, 357
- freeWRLSAI\_cpp::nodeInUseException, 418
- freeWRLSAI\_cpp::nodeUnavailableException, 419
- freeWRLSAI\_cpp::noSuchBrowserException, 420
- freeWRLSAI\_cpp::notSupportedException, 420
- freeWRLSAI\_cpp::saiBrowser, 557
- freeWRLSAI\_cpp::saiComponent, 557
- freeWRLSAI\_cpp::saiCustomException, 558
- freeWRLSAI\_cpp::saiException, 559
- freeWRLSAI\_cpp::saiExecutionContext, 560
- freeWRLSAI\_cpp::saiField, 560
- freeWRLSAI\_cpp::saiNode, 561
- freeWRLSAI\_cpp::saiProfileDeclaration, 561
- freeWRLSAI\_cpp::saiProto, 561
- freeWRLSAI\_cpp::saiRoute, 562
- freeWRLSAI\_cpp::saiScene, 562
- freeWRLSAI\_cpp::urlUnavailableException, 645
- ftype, 282
- fundamentalIffParameters
  - IffAtcNavAidsLayer2Pdu, 329
- FundamentalParameterData, 283
  - beamSweepSync, 283
  - effectiveRadiatedPower, 283
- FundamentalParameterDataIff, 284
- fw\_MaterialParameters, 285
- FWBITMAPFILEHEADER, 285
- FWBITMAPINFO, 285
- FWBITMAPINFOHEADER, 286
- FWFunctionSpec, 288
- FWJavaScriptClassLoader
  - vrml.FWJavaScriptClassLoader, 290
- FWPropertySpec, 301
- FWRGBQUAD, 302
- FWSNDMSG, 312
- FWTYPE, 313
- FWVAL, 313
- FGY, 314
  
- gcgd, 314
- getAttribute
  - nsIPluginTagInfo, 480
  - nsIPluginTagInfoOld, 486

- getAttributes
  - nsIPluginTagInfo, 480
  - nsIPluginTagInfoOld, 487
- GetAuthenticationInfo
  - nsIJVMAuthTools, 429
- getCookie
  - nsICookieStorage, 424
- getMIMEDescription
  - nsIPlugin, 431
  - nsIPluginOld, 473
- getMIMEType
  - nsIPluginInstance, 443
- getParameter
  - nsIPluginTagInfo, 481
  - nsIPluginTagInfo2, 483
- getParameters
  - nsIPluginTagInfo, 481
  - nsIPluginTagInfo2, 485
- GetPluginInstance
  - nsPluginNativeWindow, 491
- getPluginName
  - nsIPluginHost, 435
- getPluginTagForInstance
  - nsIPluginHost, 436
- getProgramPath
  - nsIFileUtilities, 426
- getTempDirPath
  - nsIFileUtilities, 427
- GetURL
  - nsIPluginHost, 436
  - nsIPluginInstanceOwner, 454
  - nsIPluginManager, 462
- GetURLWithHeaders
  - nsIPluginManager, 463
- GetValue
  - nsIPluginManager, 464
- getValue
  - nsIPlugin, 432
  - nsIPluginInstance, 443
  - nsIPluginInstanceOld, 450
  - nsIPluginInstancePeer, 456
  - nsIPluginOld, 473
- getWindow
  - nsIPluginInstanceOwner, 455
- GLUface, 315
- GLUhalfEdge, 315
- GLUmesh, 316
- GLUnurbs, 316
- GLUtesselator, 317
- GLUvertex, 318
- GLwDrawingAreaCallbackStruct, 318
- GLwDrawingAreaPart, 319
- GoP, 320
- GridAxisRecord, 320
- GridAxisRecordRepresentation0, 320
- GridAxisRecordRepresentation1, 321
- GridAxisRecordRepresentation2, 321
- gridBoundaryChain, 322
- GriddedDataPdu, 322
- Gridline, 323
- GridTrimVertex, 324
- GridVertex, 324
- gridWrap, 325
- groupedEntityDescriptions
  - IsGroupOfPdu, 359
- GUINamedType, 325
- GUIScreen, 326
- handleEvent
  - nsIPluginInstance, 443
  - nsIPluginInstanceOld, 450
- hasAllocatedMenuID
  - nsIPluginManager2, 469
- Hull, 326
- IffAtcNavAidsLayer1Pdu, 328
  - location, 328
- IffAtcNavAidsLayer2Pdu, 329
  - fundamentalIffParameters, 329
- IffFundamentalData, 330
- iiglobal, 330
- iiglobal::tBindable, 608
- iiglobal::tcollision, 609
- iiglobal::tcommon, 609
- iiglobal::tComponent\_CubeMapTexturing, 609
- iiglobal::tComponent\_EnviroSensor, 610
- iiglobal::tComponent\_Followers, 610
- iiglobal::tComponent\_Geometry3D, 610
- iiglobal::tComponent\_Geospatial, 611
- iiglobal::tComponent\_HAnim, 611
- iiglobal::tComponent\_KeyDevice, 611
- iiglobal::tComponent\_Layering, 612
- iiglobal::tComponent\_Layout, 612
- iiglobal::tComponent\_NURBS, 612
- iiglobal::tComponent\_ParticleSystems, 613
- iiglobal::tComponent\_Picking, 613
- iiglobal::tComponent\_ProgrammableShaders, 613
- iiglobal::tComponent\_Rendering, 614
- iiglobal::tComponent\_RigidBodyPhysics, 614
- iiglobal::tComponent\_Shape, 614
- iiglobal::tComponent\_Sound, 615
- iiglobal::tComponent\_Text, 615
- iiglobal::tComponent\_VolumeRendering, 615
- iiglobal::tComponent\_VRML1, 616
- iiglobal::tConsoleMessage, 616
- iiglobal::tCParse, 617
- iiglobal::tCParseParser, 617
- iiglobal::tCRoutes, 617
- iiglobal::tCScripts, 618
- iiglobal::tCursorDraw, 618
- iiglobal::tdisplay, 618
- iiglobal::tEAI\_C\_CommonFunctions, 619
- iiglobal::tEAICore, 619
- iiglobal::tEAIEventsIn, 619
- iiglobal::tEAHelpers, 620
- iiglobal::tFrustum, 622
- iiglobal::tinternalc, 622

- iiglobal::tLoadTextures, 622
- iiglobal::tMainloop, 624
- iiglobal::tOpenGL\_Utills, 624
- iiglobal::tPluginSocket, 626
- iiglobal::tpluginUtills, 626
- iiglobal::tProdCon, 626
- iiglobal::tRenderFuncs, 629
- iiglobal::tRenderTextures, 630
- iiglobal::tresources, 631
- iiglobal::tSensInterps, 633
- iiglobal::tSnapshot, 633
- iiglobal::tstatusbar, 634
- iiglobal::tStreamPoly, 634
- iiglobal::tTess, 634
- iiglobal::tTextures, 635
- iiglobal::tthreads, 635
- iiglobal::tViewer, 636
- iiglobal::tX3DParser, 636
- IMEXPORT, 333
- indentation
  - cson\_output\_opt, 168
- initialize
  - nsIPlugin, 432
  - nsIPluginInstance, 444
  - nsIPluginInstanceOld, 451
  - nsIPluginOld, 474
- initialRouteStruct, 333
- instantiateDummyJavaPlugin
  - nsIPluginHost, 437
- instantiatePluginForChannel
  - nsIPluginHost, 437
  - nsIPluginHostOld, 440
- IntercomCommunicationsParameters, 335
  - recordSpecificField, 335
- IntercomControlPdu, 336
  - intercomParameters, 336
- intercomParameters
  - IntercomControlPdu, 336
- IntercomSignalPdu, 337
- intersection\_info, 337
- InvalidEventInException
  - vrml.external.exception.InvalidEventInException, 341
- InvalidNodeException
  - vrml.external.exception.InvalidNodeException, 350
- InvalidVrmlException
  - vrml.external.exception.InvalidVrmlException, 355
- IsGroupOfPdu, 359
  - groupedEntityDescriptions, 359
- IsPartOfPdu, 360
  - partLocation, 360
- ivec2, 360
- ivec4, 361
- Jarcloc, 361
- JMATRIX, 362
- JSContext
  - nsIPluginInstance, 447
  - nsIPluginInstancePeer2, 460
- JSON\_config, 362
  - callback, 362
  - callback\_ctx, 363
  - depth, 363
  - free, 363
  - malloc, 363
- JSON\_parser\_struct, 364
- JSON\_value\_struct, 365
- JSThread
  - nsIPluginInstancePeer2, 460
- JSWindow
  - nsIPluginInstancePeer2, 460
- key, 365
- keyHit, 365
- keyval, 366
- Knotspec, 366
- Knotvector, 367
- LayerHeader, 368
- layout\_scale\_item, 368
- layoutmode, 369
- LinearObjectStatePdu, 369
- LinearSegmentParameter, 370
- linkedList\_data\_s, 370
- linkedList\_datablock\_internal\_s, 371
- location
  - IffAtcNavAidsLayer1Pdu, 328
- locationInEntityCoordinates
  - DetonationPdu, 185
- LogisticsFamilyPdu, 371
- macroblock, 371
- malloc
  - JSON\_config, 363
- Mapdesc, 372
- Maplist, 373
- Marking, 374
- matpropstruct, 374
- maxDepth
  - cson\_output\_opt, 168
- mb\_addr\_inc\_entry, 377
- mb\_type\_entry, 377
- mem
  - cson\_buffer, 163
- Meshes, 378
- MIMEType
  - nsIPluginInstancePeer, 458
- MinefieldDataPdu, 400
  - pad3, 400
- MinefieldFamilyPdu, 401
- MinefieldQueryPdu, 401
- MinefieldResponseNackPdu, 402
- MinefieldStatePdu, 402
- mode
  - nsIPluginInstancePeer, 458
- mode\_name, 403
- ModulationType, 403
- monoChain, 404

- Monotonizer, 405
- motion\_vectors\_entry, 405
- Multi\_Any, 405
- Multi\_Bool, 406
- Multi\_Color, 406
- Multi\_ColorRGBA, 406
- Multi\_Double, 407
- Multi\_Float, 407
- Multi\_Int32, 408
- Multi\_Matrix3d, 408
- Multi\_Matrix3f, 408
- Multi\_Matrix4d, 409
- Multi\_Matrix4f, 409
- Multi\_Node, 410
- Multi\_Rotation, 410
- Multi\_String, 410
- Multi\_Time, 411
- Multi\_Vec2d, 411
- Multi\_Vec2f, 412
- Multi\_Vec3d, 412
- Multi\_Vec3f, 412
- Multi\_Vec4d, 413
- Multi\_Vec4f, 413
- multiTexParams, 414
- myArgs, 414
- MyVertex, 414
  
- name\_num, 415
- NamedLocation, 415
- navmode, 416
- newResponseHeader
  - nsIHTTPHeaderListener, 428
- newStream
  - nsIPluginInstanceOld, 451
  - nsIPluginInstancePeer, 457
- newStreamFromPlugin
  - nsIPluginInstance, 444
- newStreamToPlugin
  - nsIPluginInstance, 445
- newTempFileName
  - nsIFileUtilities, 427
- nodedistance, 417
- notifyStatusChange
  - nsIPluginManager2, 470
- NPCClass, 422
- NPObject, 422
- nsByteRange, 423
- nsIAuthenticationInfo, 423
- nsICookieStorage, 424
  - getCookie, 424
  - setCookie, 424
- nsIFileUtilities, 425
  - getProgramPath, 426
  - getTempDirPath, 427
  - newTempFileName, 427
- nsIHTTPHeaderListener, 428
  - newResponseHeader, 428
  - statusLine, 428
- nsIJVMAuthTools, 429
  - GetAuthenticationInfo, 429
  - SetAuthenticationInfo, 430
- nsIPlugin, 430
  - createPluginInstance, 431
  - getMIMEDescription, 431
  - getValue, 432
  - initialize, 432
  - shutdown, 432
- nsIPluginDocument, 433
  - willHandleInstantiation, 433
- nsIPluginHost, 434
  - findProxyForURL, 435
  - getPluginName, 435
  - getPluginTagForInstance, 436
  - GetURL, 436
  - instantiateDummyJavaPlugin, 437
  - instantiatePluginForChannel, 437
  - parsePostBufferToFixHeaders, 437
  - PostURL, 438
  - reloadPlugins, 439
- nsIPluginHostOld, 439
  - instantiatePluginForChannel, 440
- nsIPluginInputStream, 441
- nsIPluginInstance, 441
  - getMIMEType, 443
  - getValue, 443
  - handleEvent, 443
  - initialize, 444
  - JSContext, 447
  - newStreamFromPlugin, 444
  - newStreamToPlugin, 445
  - print, 445
  - setWindow, 446
  - showStatus, 446
  - start, 446
  - stop, 447
- nsIPluginInstanceInternal, 447
- nsIPluginInstanceOld, 448
  - destroy, 449
  - getValue, 450
  - handleEvent, 450
  - initialize, 451
  - newStream, 451
  - peer, 453
  - print, 451
  - setWindow, 452
  - start, 452
  - stop, 452
- nsIPluginInstanceOwner, 453
  - createWidget, 454
  - GetURL, 454
  - getWindow, 455
- nsIPluginInstancePeer, 455
  - getValue, 456
  - MIMEType, 458
  - mode, 458
  - newStream, 457
  - setWindowSize, 457

- showStatus, 457
- nsIPluginInstancePeer2, 459
  - JSContext, 460
  - JSThread, 460
  - JSWindow, 460
- nsIPluginInstancePeer2\_1\_9\_1\_BRANCH, 461
- nsIPluginManager, 462
  - GetURL, 462
  - GetURLWithHeaders, 463
  - GetValue, 464
  - PostURL, 464
  - RegisterPlugin, 465
  - reloadPlugins, 466
  - UnregisterPlugin, 466
  - UserAgent, 466
- nsIPluginManager2, 467
  - allocateMenuID, 468
  - beginWaitCursor, 468
  - deallocateMenuID, 468
  - endWaitCursor, 469
  - findProxyForURL, 469
  - hasAllocatedMenuID, 469
  - notifyStatusChange, 470
  - registerWindow, 470
  - supportsURLProtocol, 471
  - unregisterWindow, 471
- nsIPluginOld, 472
  - createPluginInstance, 472
  - getMIMEDescription, 473
  - getValue, 473
  - initialize, 474
  - shutdown, 474
- nsIPluginStreamInfo, 474
- nsIPluginStreamListener, 475
  - onDataAvailable, 476
  - onFileAvailable, 476
  - onStartBinding, 477
  - onStopBinding, 477
  - streamType, 478
- nsIPluginTag, 478
- nsIPluginTagInfo, 479
  - DOMElement, 481
  - getAttribute, 480
  - getAttributes, 480
  - getParameter, 481
  - getParameters, 481
  - tagType, 482
- nsIPluginTagInfo2, 482
  - DOMElement, 485
  - getParameter, 483
  - getParameters, 485
  - tagType, 485
- nsIPluginTagInfoOld, 486
  - getAttribute, 486
  - getAttributes, 487
- nsIScriptablePlugin, 487
  - scriptableInterface, 488
  - scriptablePeer, 488
- nsIWindowlessPluginInstancePeer, 488
- nsPIPluginInstancePeer, 489
- nsPluginEmbedPrint, 489
- nsPluginEvent, 490
- nsPluginFullPrint, 490
- nsPluginLogging, 490
- nsPluginNativeWindow, 491
  - GetPluginInstance, 491
- nsPluginPrint, 492
- nsPluginRect, 492
- nsPluginWindow, 493
- numberOfBeams
  - ElectronicEmissionSystemData, 229
- NurbsTessellator, 493
- O\_curve, 495
- O\_nurbscurve, 495
- O\_nurbssurface, 496
- O\_pwlcurve, 497
- O\_surface, 497
- O\_trim, 498
- ObjectType, 498
- onDataAvailable
  - nsIPluginStreamListener, 476
- OneByteChunk, 499
- onFileAvailable
  - nsIPluginStreamListener, 476
- onStartBinding
  - nsIPluginStreamListener, 477
- onStopBinding
  - nsIPluginStreamListener, 477
- OpenGLCurveEvaluator, 499
- OpenGLSurfaceEvaluator, 501
- opened\_file, 502
- org.web3d.x3d.sai.Browser, 114
- org.web3d.x3d.sai.BrowserEvent, 117
- org.web3d.x3d.sai.BrowserFactoryImpl, 118
- org.web3d.x3d.sai.BrowserInterface, 120
- org.web3d.x3d.sai.BrowserListener, 121
- org.web3d.x3d.sai.BrowserNotSharedException, 122
- org.web3d.x3d.sai.ComponentInfo, 132
- org.web3d.x3d.sai.ConnectionException, 133
- org.web3d.x3d.sai.ExternalBrowser, 261
- org.web3d.x3d.sai.ImportedNodeException, 333
- org.web3d.x3d.sai.InsufficientCapabilitiesException, 334
- org.web3d.x3d.sai.InvalidBrowserException, 339
- org.web3d.x3d.sai.InvalidDocumentException, 340
- org.web3d.x3d.sai.InvalidExecutionContextException, 344
- org.web3d.x3d.sai.InvalidFieldException, 345
- org.web3d.x3d.sai.InvalidFieldValueException, 347
- org.web3d.x3d.sai.InvalidNameException, 348
- org.web3d.x3d.sai.InvalidNodeException, 348
- org.web3d.x3d.sai.InvalidOperationTimingException, 350
- org.web3d.x3d.sai.InvalidProtoException, 352
- org.web3d.x3d.sai.InvalidRouteException, 353
- org.web3d.x3d.sai.InvalidURLErrorException, 354

- org.web3d.x3d.sai.InvalidX3DException, 358
- org.web3d.x3d.sai.Matrix, 375
- org.web3d.x3d.sai.Matrix3, 375
- org.web3d.x3d.sai.Matrix4, 376
- org.web3d.x3d.sai.MFBool, 378
- org.web3d.x3d.sai.MFColor, 380
- org.web3d.x3d.sai.MFColorRGBA, 381
- org.web3d.x3d.sai.MFDouble, 381
- org.web3d.x3d.sai.MFFloat, 382
- org.web3d.x3d.sai.MField, 384
- org.web3d.x3d.sai.MFImage, 386
- org.web3d.x3d.sai.MFInt32, 387
- org.web3d.x3d.sai.MFNode, 388
- org.web3d.x3d.sai.MFRotation, 390
- org.web3d.x3d.sai.MFString, 392
- org.web3d.x3d.sai.MFTime, 393
- org.web3d.x3d.sai.MFVec2d, 395
- org.web3d.x3d.sai.MFVec2f, 397
- org.web3d.x3d.sai.MFVec3d, 397
- org.web3d.x3d.sai.MFVec3f, 399
- org.web3d.x3d.sai.NodeInUseException, 417
- org.web3d.x3d.sai.NodeUnavailableException, 418
- org.web3d.x3d.sai.NoSuchBrowserException, 419
- org.web3d.x3d.sai.NotSupportedException, 421
- org.web3d.x3d.sai.ProfileInfo, 535
- org.web3d.x3d.sai.SFBool, 572
- org.web3d.x3d.sai.SFColor, 575
- org.web3d.x3d.sai.SFColorRGBA, 576
- org.web3d.x3d.sai.SFDouble, 576
- org.web3d.x3d.sai.SFFloat, 578
- org.web3d.x3d.sai.SFImage, 579
- org.web3d.x3d.sai.SFInt32, 580
- org.web3d.x3d.sai.SFNode, 582
- org.web3d.x3d.sai.SFRotation, 584
- org.web3d.x3d.sai.SFString, 586
- org.web3d.x3d.sai.SFTime, 587
- org.web3d.x3d.sai.SFVec2d, 588
- org.web3d.x3d.sai.SFVec2f, 589
- org.web3d.x3d.sai.SFVec3d, 590
- org.web3d.x3d.sai.SFVec3f, 592
- org.web3d.x3d.sai.URLUnavailableException, 645
- org.web3d.x3d.sai.X3DAppearanceChildNode, 905
- org.web3d.x3d.sai.X3DAppearanceNode, 906
- org.web3d.x3d.sai.X3DAudioClipNode, 906
- org.web3d.x3d.sai.X3DBackgroundNode, 907
- org.web3d.x3d.sai.X3DBindableNode, 908
- org.web3d.x3d.sai.X3DBoundedObject, 908
- org.web3d.x3d.sai.X3DChildNode, 909
- org.web3d.x3d.sai.X3DColorNode, 910
- org.web3d.x3d.sai.X3DComponent, 910
- org.web3d.x3d.sai.X3DComposedGeometryNode, 911
- org.web3d.x3d.sai.X3DCoordinateNode, 912
- org.web3d.x3d.sai.X3DDragSensorNode, 912
- org.web3d.x3d.sai.X3DEnvironmentalSensorNode, 913
- org.web3d.x3d.sai.X3DException, 914
- org.web3d.x3d.sai.X3DExecutionContext, 915
- org.web3d.x3d.sai.X3DExternProtoDeclaration, 916
- org.web3d.x3d.sai.X3DField, 916
- org.web3d.x3d.sai.X3DFieldDefinition, 918
- org.web3d.x3d.sai.X3DFieldEvent, 918
- org.web3d.x3d.sai.X3DFieldEventListener, 919
- org.web3d.x3d.sai.X3DFieldTypes, 919
- org.web3d.x3d.sai.X3DFontStyleNode, 920
- org.web3d.x3d.sai.X3DGeometricPropertyNode, 921
- org.web3d.x3d.sai.X3DGeometryNode, 921
- org.web3d.x3d.sai.X3DGroupingNode, 922
- org.web3d.x3d.sai.X3DInfoNode, 922
- org.web3d.x3d.sai.X3DInterpolatorNode, 923
- org.web3d.x3d.sai.X3DKeyDeviceSensorNode, 923
- org.web3d.x3d.sai.X3DLightNode, 924
- org.web3d.x3d.sai.X3DMaterialNode, 925
- org.web3d.x3d.sai.X3DMetadataObject, 925
- org.web3d.x3d.sai.X3DNetworkSensorNode, 926
- org.web3d.x3d.sai.X3DNode, 926
- org.web3d.x3d.sai.X3DNodeTypes, 927
- org.web3d.x3d.sai.X3DNormalNode, 928
- org.web3d.x3d.sai.X3DParametricGeometryNode, 929
- org.web3d.x3d.sai.X3DPerFrameObserverScript, 929
- org.web3d.x3d.sai.X3DPointingDeviceSensorNode, 930
- org.web3d.x3d.sai.X3DProtoDeclaration, 930
- org.web3d.x3d.sai.X3DProtoInstance, 931
- org.web3d.x3d.sai.X3DRoute, 931
- org.web3d.x3d.sai.X3DScene, 932
- org.web3d.x3d.sai.X3DScriptImplementation, 933
- org.web3d.x3d.sai.X3DScriptNode, 933
- org.web3d.x3d.sai.X3DSensorNode, 934
- org.web3d.x3d.sai.X3DSequencerNode, 934
- org.web3d.x3d.sai.X3DShapeNode, 935
- org.web3d.x3d.sai.X3DSoundNode, 935
- org.web3d.x3d.sai.X3DSoundSourceNode, 936
- org.web3d.x3d.sai.X3DTextNode, 936
- org.web3d.x3d.sai.X3DTexture2DNode, 937
- org.web3d.x3d.sai.X3DTextureCoordinateNode, 937
- org.web3d.x3d.sai.X3DTextureNode, 938
- org.web3d.x3d.sai.X3DTextureTransform2DNode, 939
- org.web3d.x3d.sai.X3DTextureTransformNode, 939
- org.web3d.x3d.sai.X3DTimeDependentNode, 940
- org.web3d.x3d.sai.X3DTouchSensorNode, 941
- org.web3d.x3d.sai.X3DTriggerNode, 941
- org.web3d.x3d.sai.X3DUriObject, 942
- orient\_XYZA, 503
- Orientation, 503
- pad1
  - RecordQueryReliablePdu, 547
  - SetRecordReliablePdu, 571
- pad2
  - AggregateStatePdu, 94
- pad3
  - MinefieldDataPdu, 400
- parsePostBufferToFixHeaders
  - nsIPluginHost, 437
- particle, 503
- partLocation
  - IsPartOfPdu, 360
- passiveParameterIndex
  - UaPdu, 637

- Patch, 504
- Patchlist, 504
- Patchspec, 505
- pBindable, 506
- pcollision, 506
- pcommon, 507
- pComponent\_CubeMapTexturing, 507
- pComponent\_EnviroSensor, 508
- pComponent\_Followers, 508
- pComponent\_Geometry3D, 508
- pComponent\_Geospatial, 509
- pComponent\_HAnim, 509
- pComponent\_KeyDevice, 509
- pComponent\_Layering, 510
- pComponent\_Layout, 510
- pComponent\_NURBS, 510
- pComponent\_ParticleSystems, 511
- pComponent\_Picking, 511
- pComponent\_ProgrammableShaders, 511
- pComponent\_Rendering, 512
- pComponent\_RigidBodyPhysics, 512
- pComponent\_Shape, 512
- pComponent\_Sound, 513
- pComponent\_Text, 513
- pComponent\_VolumeRendering, 514
- pConsoleMessage, 515
- pCParse, 515
- pCParseParser, 516
- pCRoutes, 516
- pCScripts, 517
- pCursorDraw, 517
- pdisplay, 517
- Pdu, 518
  - protocolVersion, 518
- PduContainer, 518
- pEAI\_C\_CommonFunctions, 519
- pEAICore, 519
- pEAIEventsIn, 519
- pEAISHelpers, 520
- pedal\_state, 520
- peer
  - nsIPluginInstanceOld, 453
- pFrustum, 521
- pict, 521
- pict\_image, 522
- Planet, 522
- pLoadTextures, 522
- pMainloop, 523
- Point, 524
- point\_XYZ, 525
- point\_XYZ3, 525
- pointer2pointer, 525
- PointObjectStatePdu, 526
- polygon, 526
- polyrep\_combiner\_data, 527
- Pool, 527
- PooledObj, 528
- pOpenGL\_Utils, 529
- pos
  - cson\_data\_source\_StringSource\_, 165
- PostURL
  - nsIPluginHost, 438
  - nsIPluginManager, 464
- pPluginSocket, 529
- ppluginUtils, 530
- pProdCon, 530
- PQhandleElem, 531
- PQnode, 531
- pRasterFont, 531
- pRenderFuncs, 532
- pRenderTextures, 533
- presources, 533
- primStream, 534
- print
  - nsIPluginInstance, 445
  - nsIPluginInstanceOld, 451
- PriorityQ, 534
- profile\_entry, 535
- proftablestruct, 536
- Property, 536
- propulsionPlantConfiguration
  - UaPdu, 638
- PropulsionSystemData, 537
- protocolVersion
  - Pdu, 518
- ProtoDefinition, 537
- ProtoFieldDecl, 538
- pSensInterps, 538
- pSnapshot, 538
- Pspec, 539
- PSStruct, 539
- pstatusbar, 540
- pStreamPoly, 540
- pTess, 541
- pTextures, 541
- pViewer, 541
- PwlArc, 542
- pX3DParser, 542
- quaternion, 543
- Quilt, 543
- Quiltspec, 544
- RadioCommunicationsFamilyPdu, 544
- RadioEntityType, 545
- rb1, 545
- ReceiverPdu, 546
- RecordQueryReliablePdu, 546
  - pad1, 547
- RecordSet, 547
- recordSpecificField
  - IntercomCommunicationsParameters, 335
- rectBlock, 548
- rectBlockArray, 548
- refcount
  - cson\_value, 173
- reflexChain, 549



- RegisterPlugin
  - nsIPluginManager, 465
- registerWindow
  - nsIPluginManager2, 470
- Relationship, 549
- reloadPlugins
  - nsIPluginHost, 439
  - nsIPluginManager, 466
- RemoveEntityPdu, 549
- RemoveEntityReliablePdu, 550
- Renderhints, 550
- RepairCompletePdu, 551
- RepairResponsePdu, 551
- resource\_item, 552
- ResupplyCancelPdu, 553
- ResupplyOfferPdu, 553
- ResupplyReceivedPdu, 554
- row32, 554
  
- s\_renderer\_capabilities\_t, 555
- s\_shader\_capabilities, 555
- sai.BrowserFactory, 118
- sai.BrowserGlobals, 119
- sai.eai.EAIAsyncMessage, 220
- sai.eai.EAIAsyncQueue, 221
- sai.eai.EAIAsyncThread, 221
- sai.eai.EAIinThread, 222
- sai.eai.EAIMessage, 223
- sai.eai.EAIoutQueue, 225
- sai.eai.EAIoutThread, 225
- sai.eai.UnsupportedFieldTypeException, 641
- sai.eai.VField, 650
- sai.eai.VIP, 658
- sai.eai.VMFCColor, 660
- sai.eai.VMFFloat, 661
- sai.eai.VMFInt32, 662
- sai.eai.VMFRotation, 663
- sai.eai.VMFString, 665
- sai.eai.VMFVec2f, 666
- sai.eai.VMFVec3f, 667
- sai.eai.VRMLObject, 669
- sai.eai.VRMLObjectObserver, 671
- sai.eai.VSFBool, 673
- sai.eai.VSFColor, 673
- sai.eai.VSFFloat, 675
- sai.eai.VSFImage, 676
- sai.eai.VSFInt32, 677
- sai.eai.VSFRotation, 679
- sai.eai.VSFString, 679
- sai.eai.VSFTime, 680
- sai.eai.VSFVec2f, 682
- sai.eai.VSFVec3f, 683
- sai.FreeWRLBrowser, 272
- sai.FreeWRLBrowserInfo, 274
- sai.FreeWRLComponent, 274
- sai.FreeWRLField, 275
- sai.FreeWRLFieldDefinition, 276
- sai.FreeWRLFieldTypes, 277
- sai.FreeWRLMField, 278
- sai.FreeWRLNode, 279
- sai.FreeWRLNodeTypes, 279
- sai.FreeWRLRendererInfo, 280
- sai.FreeWRLScene, 281
- sai.FWComponentInfo, 286
- sai.FWExternProtoDeclaration, 287
- sai.FWMFColor, 291
- sai.FWMFColorRGBA, 291
- sai.FWMFDouble, 292
- sai.FWMFFloat, 293
- sai.FWMFInt32, 294
- sai.FWMFNode, 294
- sai.FWMFRotation, 295
- sai.FWMFString, 296
- sai.FWMFVec2d, 297
- sai.FWMFVec2f, 297
- sai.FWMFVec3d, 298
- sai.FWMFVec3f, 299
- sai.FWProfileInfo, 300
- sai.FWProfInfo, 300
- sai.FWProtoDeclaration, 301
- sai.FWProtoInstance, 302
- sai.FWRoute, 303
- sai.FWSFBool, 303
- sai.FWSFColor, 304
- sai.FWSFColorRGBA, 305
- sai.FWSFDouble, 305
- sai.FWSFFloat, 306
- sai.FWSFImage, 306
- sai.FWSFInt32, 307
- sai.FWSFNode, 308
- sai.FWSFRotation, 308
- sai.FWSFString, 309
- sai.FWSFTime, 309
- sai.FWSFVec2d, 310
- sai.FWSFVec2f, 311
- sai.FWSFVec3d, 311
- sai.FWSFVec3f, 312
- sampledLine, 563
- sCollisionGeometry, 563
- sCollisionInfo, 564
- screentextdata, 564
- scriptableInterface
  - nsIScriptablePlugin, 488
- scriptablePeer
  - nsIScriptablePlugin, 488
- ScriptablePluginObjectBase, 565
- ScriptFieldDecl, 567
- ScriptFieldInstanceInfo, 567
- ScriptParamList, 567
- SeesPdu, 568
- SensStruct, 568
- ServiceRequestPdu, 569
- SetAuthenticationInfo
  - nsIJVMAuthTools, 430
- setCookie
  - nsICookieStorage, 424
- SetDataPdu, 569

- SetDataReliablePdu, 570
- SetRecordReliablePdu, 571
  - pad1, 571
- setWindow
  - nsIPluginInstance, 446
  - nsIPluginInstanceOld, 452
- setWindowSize
  - nsIPluginInstancePeer, 457
- sFallInfo, 572
- SFColor, 574
- SFColorRGBA, 575
- SFMatrix3d, 581
- SFMatrix3f, 581
- SFMatrix4d, 581
- SFMatrix4f, 582
- SFRotation, 583
- SFVec2d, 587
- SFVec2f, 589
- SFVec3d, 590
- SFVec3f, 592
- SFVec4d, 592
- SFVec4f, 593
- Shader\_Script, 593
- shaderflagsstruct, 594
- shaderTableEntry, 594
- ShaftRPMs, 594
- showStatus
  - nsIPluginInstance, 446
  - nsIPluginInstancePeer, 457
- shutdown
  - nsIPlugin, 432
  - nsIPluginOld, 474
- SignalPdu, 595
- SimulationAddress, 595
- SimulationManagementFamilyPdu, 596
- SimulationManagementWithReliabilityFamilyPdu, 596
- SixByteChunk, 597
- slice, 597
- Slicer, 597
- sNavInfo, 598
- SNDFILE, 599
- Sorter, 599
- SphericalHarmonicAntennaPattern, 600
- Splinespec, 600
- ssr, 601
- SSR\_request, 601
- stage, 602
- start
  - nsIPluginInstance, 446
  - nsIPluginInstanceOld, 452
- StartResumePdu, 602
- StartResumeReliablePdu, 603
- statusLine
  - nsIHTTPHeaderListener, 428
- stop
  - nsIPluginInstance, 447
  - nsIPluginInstanceOld, 452
- StopFreezePdu, 603
- StopFreezeReliablePdu, 604
- StoredVertex, 604
- streamType
  - nsIPluginStreamListener, 478
- stringint, 605
- Subdivider, 605
- SupplyQuantity, 606
- supportsURLProtocol
  - nsIPluginManager2, 471
- surfEvalMachine, 606
- sweepRange, 607
- SyntheticEnvironmentFamilyPdu, 607
- systemDataLength
  - ElectronicEmissionSystemData, 229
- SystemID, 607
- tagType
  - nsIPluginTagInfo, 482
  - nsIPluginTagInfo2, 485
- targetwindow, 608
- tcontenttype, 616
- text\_combiner\_data, 620
- textureTableIndexStruct, 621
- textureVertexInfo, 621
- timeInterval
  - DataQueryPdu, 179
- timesExpanded
  - cson\_buffer, 163
- tm\_unz\_s, 623
- tm\_zip\_s, 623
- Touch, 625
- TrackJamTarget, 627
- TransferControlRequestPdu, 627
- TransmitterPdu, 628
- treeNode, 629
- trenderstate, 630
- Trimline, 631
- TrimRegion, 632
- TrimVertex, 632
- TrimVertexPool, 633
- TwoByteChunk, 636
- UaPdu, 637
  - passiveParameterIndex, 637
  - propulsionPlantConfiguration, 638
- Uarray, 638
- un1, 639
- unca, 639
- Uni\_String, 639
- unitsB, 640
- unitSurfaceNormal
  - CollisionElasticPdu, 129
- UnregisterPlugin
  - nsIPluginManager, 466
- unregisterWindow
  - nsIPluginManager2, 471
- unz64\_file\_pos\_s, 641
- unz64\_s, 642
- unz\_file\_info64\_internal\_s, 642

- unz\_file\_info64\_s, 643
- unz\_file\_info\_s, 643
- unz\_file\_pos\_s, 644
- unz\_global\_info64\_s, 644
- unz\_global\_info\_s, 644
- used
  - cson\_buffer, 164
- usehit, 646
- UserAgent
  - nsIPluginManager, 466
- value
  - cson\_value, 173
- VariableDatum, 646
- Varray, 647
- vec2, 647
- vec4, 648
- Vector, 648
- Vector3Double, 648
- Vector3Float, 649
- VectoringNozzleSystemData, 649
- vertexArray, 650
- vid\_stream, 653
- viewer, 655
- viewer\_examine, 656
- viewer\_fly, 657
- viewer\_inplane, 657
- viewer\_walk, 657
- viewer\_ypz, 658
- void3, 668
- vrml.BaseNode, 103
- vrml.Browser, 115
- vrml.ConstField, 134
- vrml.ConstMField, 136
- vrml.Event, 235
- vrml.external.Browser, 116
- vrml.external.BrowserGlobals, 119
- vrml.external.BrowserInterface, 120
- vrml.external.exception.InvalidEventInException, 341
  - InvalidEventInException, 341
- vrml.external.exception.InvalidEventOutException, 342
- vrml.external.exception.InvalidNodeException, 349
  - InvalidNodeException, 350
- vrml.external.exception.InvalidVrmlException, 355
  - InvalidVrmlException, 355
- vrml.external.field.EventIn, 236
- vrml.external.field.EventInMFColor, 237
- vrml.external.field.EventInMFFloat, 237
- vrml.external.field.EventInMFInt32, 238
- vrml.external.field.EventInMFNode, 239
- vrml.external.field.EventInMFRotation, 239
- vrml.external.field.EventInMFString, 240
- vrml.external.field.EventInMFVec2f, 240
- vrml.external.field.EventInMFVec3f, 241
- vrml.external.field.EventInSFBool, 241
- vrml.external.field.EventInSFColor, 242
- vrml.external.field.EventInSFFloat, 242
- vrml.external.field.EventInSFImage, 243
- vrml.external.field.EventInSFInt32, 243
- vrml.external.field.EventInSFNode, 244
- vrml.external.field.EventInSFRotation, 244
- vrml.external.field.EventInSFString, 245
- vrml.external.field.EventInSFTime, 245
- vrml.external.field.EventInSFVec2f, 246
- vrml.external.field.EventInSFVec3f, 246
- vrml.external.field.EventOut, 247
- vrml.external.field.EventOutMFColor, 248
- vrml.external.field.EventOutMFFloat, 248
- vrml.external.field.EventOutMField, 249
- vrml.external.field.EventOutMFInt32, 250
- vrml.external.field.EventOutMFNode, 250
- vrml.external.field.EventOutMFRotation, 251
- vrml.external.field.EventOutMFString, 252
- vrml.external.field.EventOutMFVec2f, 252
- vrml.external.field.EventOutMFVec3f, 253
- vrml.external.field.EventOutObserver, 253
- vrml.external.field.EventOutSFBool, 254
- vrml.external.field.EventOutSFColor, 254
- vrml.external.field.EventOutSFFloat, 255
- vrml.external.field.EventOutSFImage, 255
- vrml.external.field.EventOutSFInt32, 256
- vrml.external.field.EventOutSFNode, 257
- vrml.external.field.EventOutSFRotation, 257
- vrml.external.field.EventOutSFString, 258
- vrml.external.field.EventOutSFTime, 258
- vrml.external.field.EventOutSFVec2f, 259
- vrml.external.field.EventOutSFVec3f, 259
- vrml.external.field.FieldTypes, 266
- vrml.external.FreeWRLEAI.EAIAsyncMessage, 219
- vrml.external.FreeWRLEAI.EAIAsyncQueue, 220
- vrml.external.FreeWRLEAI.EAIAsyncThread, 221
- vrml.external.FreeWRLEAI.EAlinThread, 222
- vrml.external.FreeWRLEAI.EAIMessage, 223
- vrml.external.FreeWRLEAI.EAloutQueue, 225
- vrml.external.FreeWRLEAI.EAloutThread, 226
- vrml.external.FreeWRLEAI.UnsupportedFieldTypeException, 640
- vrml.external.FreeWRLEAI.VField, 652
- vrml.external.FreeWRLEAI.VIP, 659
- vrml.external.FreeWRLEAI.VMFColor, 660
- vrml.external.FreeWRLEAI.VMFFloat, 662
- vrml.external.FreeWRLEAI.VMFInt32, 663
- vrml.external.FreeWRLEAI.VMFRotation, 664
- vrml.external.FreeWRLEAI.VMFString, 665
- vrml.external.FreeWRLEAI.VMFVec2f, 666
- vrml.external.FreeWRLEAI.VMFVec3f, 668
- vrml.external.FreeWRLEAI.VRMLObject, 670
- vrml.external.FreeWRLEAI.VRMLObjectObserver, 671
- vrml.external.FreeWRLEAI.VSFBool, 672
- vrml.external.FreeWRLEAI.VSFColor, 674
- vrml.external.FreeWRLEAI.VSFFloat, 674
- vrml.external.FreeWRLEAI.VSFImage, 676
- vrml.external.FreeWRLEAI.VSFInt32, 677
- vrml.external.FreeWRLEAI.VSFRotation, 678
- vrml.external.FreeWRLEAI.VSFString, 680
- vrml.external.FreeWRLEAI.VSFTime, 681
- vrml.external.FreeWRLEAI.VSFVec2f, 682

- vrml.external.FreeWRLEAI.VSFVec3f, 684
- vrml.external.IBrowser, 327
- vrml.external.Node, 416
- vrml.Field, 264
- vrml.field.ConstMFCColor, 135
- vrml.field.ConstMFFloat, 136
- vrml.field.ConstMFInt32, 138
- vrml.field.ConstMFNode, 138
- vrml.field.ConstMFRotation, 139
- vrml.field.ConstMFString, 140
- vrml.field.ConstMFTime, 141
- vrml.field.ConstMFVec2f, 141
- vrml.field.ConstMFVec3f, 142
- vrml.field.ConstSFBool, 143
- vrml.field.ConstSFColor, 144
- vrml.field.ConstSFFloat, 144
- vrml.field.ConstSFImage, 145
- vrml.field.ConstSFInt32, 146
- vrml.field.ConstSFNode, 147
- vrml.field.ConstSFRotation, 147
- vrml.field.ConstSFString, 148
- vrml.field.ConstSFTime, 149
- vrml.field.ConstSFVec2f, 149
- vrml.field.ConstSFVec3f, 150
- vrml.field.MFCColor, 379
- vrml.field.MFFloat, 383
- vrml.field.MFInt32, 387
- vrml.field.MFNode, 389
- vrml.field.MFRotation, 391
- vrml.field.MFString, 392
- vrml.field.MFTime, 394
- vrml.field.MFVec2f, 396
- vrml.field.MFVec3f, 398
- vrml.field.SFBool, 573
- vrml.field.SFColor, 574
- vrml.field.SFFloat, 577
- vrml.field.SFImage, 578
- vrml.field.SFInt32, 580
- vrml.field.SFNode, 583
- vrml.field.SFRotation, 584
- vrml.field.SFString, 585
- vrml.field.SFTime, 586
- vrml.field.SFVec2f, 588
- vrml.field.SFVec3f, 591
- vrml.FWCreateField, 287
- vrml.FWHelper, 288
- vrml.FWJavaScript, 289
- vrml.FWJavaScriptBinding, 289
- vrml.FWJavaScriptClassLoader, 290
  - FWJavaScriptClassLoader, 290
- vrml.InvalidEventInException, 340
- vrml.InvalidEventOutException, 342
- vrml.InvalidExposedFieldException, 344
- vrml.InvalidFieldChangeException, 345
- vrml.InvalidFieldException, 346
- vrml.InvalidRouteException, 353
- vrml.InvalidVRMLSyntaxException, 356
- vrml.InvalidX3DSyntaxException, 358
- vrml.MField, 385
- vrml.node.Node, 416
- vrml.node.Script, 565
- VRMLLexer, 669
- VRMLParser, 672
- walk\_cbdata, 684
- WarfareFamilyPdu, 685
- WEB3DNATIVE, 685
- willHandleInstantiation
  - nsIPluginDocument, 433
- X3D\_Anchor, 686
- X3D\_Appearance, 686
- X3D\_Arc2D, 687
- X3D\_ArcClose2D, 688
- X3D\_AudioClip, 688
- X3D\_BackdropBackground, 689
- X3D\_Background, 690
- X3D\_BallJoint, 691
- X3D\_Billboard, 692
- X3D\_BlendedVolumeStyle, 692
- X3D\_BooleanFilter, 693
- X3D\_BooleanSequencer, 694
- X3D\_BooleanToggle, 695
- X3D\_BooleanTrigger, 695
- X3D\_BoundaryEnhancementVolumeStyle, 696
- X3D\_BoundedPhysicsModel, 697
- X3D\_Box, 697
- X3D\_CADAssembly, 698
- X3D\_CADFace, 699
- X3D\_CADLayer, 699
- X3D\_CADPart, 700
- X3D\_CalibratedCameraSensor, 701
- X3D\_CartoonVolumeStyle, 701
- X3D\_Circle2D, 702
- X3D\_ClipPlane, 702
- X3D\_CollidableOffset, 703
- X3D\_CollidableShape, 704
- X3D\_Collision, 704
- X3D\_CollisionCollection, 705
- X3D\_CollisionSensor, 706
- X3D\_CollisionSpace, 707
- X3D\_Color, 707
- X3D\_ColorChaser, 708
- X3D\_ColorDamper, 709
- X3D\_ColorInterpolator, 710
- X3D\_ColorRGBA, 710
- X3D\_ComposedCubeMapTexture, 711
- X3D\_ComposedShader, 712
- X3D\_ComposedTexture3D, 712
- X3D\_ComposedVolumeStyle, 713
- X3D\_CompositeVolumeStyle, 714
- X3D\_Cone, 714
- X3D\_ConeEmitter, 715
- X3D\_Contact, 716
- X3D\_Contour2D, 717
- X3D\_ContourPolyline2D, 717
- X3D\_Coordinate, 718

- X3D\_CoordinateChaser, 718
- X3D\_CoordinateDamper, 719
- X3D\_CoordinateDouble, 720
- X3D\_CoordinateInterpolator, 721
- X3D\_CoordinateInterpolator2D, 721
- X3D\_Cylinder, 722
- X3D\_CylinderSensor, 723
- X3D\_DirectionalLight, 724
- X3D\_DISEntityManager, 724
- X3D\_DISEntityTypeMapping, 726
- X3D\_Disk2D, 726
- X3D\_DoubleAxisHingeJoint, 727
- X3D\_EaseInEaseOut, 728
- X3D\_EdgeEnhancementVolumeStyle, 729
- X3D\_Effect, 730
- X3D\_EffectPart, 730
- X3D\_ElevationGrid, 731
- X3D\_EspduTransform, 732
- X3D\_ExplosionEmitter, 735
- X3D\_Extrusion, 735
- X3D\_FillProperties, 736
- X3D\_FloatVertexAttribute, 737
- X3D\_Fog, 738
- X3D\_FogCoordinate, 738
- X3D\_FontStyle, 739
- X3D\_ForcePhysicsModel, 740
- X3D\_GeneratedCubeMapTexture, 740
- X3D\_GeoConvert, 741
- X3D\_GeoCoordinate, 742
- X3D\_GeoElevationGrid, 742
- X3D\_GeoLocation, 743
- X3D\_GeoLOD, 744
- X3D\_GeoMetadata, 745
- X3D\_GeoOrigin, 746
- X3D\_GeoPlanet, 747
- X3D\_GeoPositionInterpolator, 747
- X3D\_GeoProximitySensor, 748
- X3D\_GeoTouchSensor, 749
- X3D\_GeoTransform, 750
- X3D\_GeoViewpoint, 751
- X3D\_Group, 752
- X3D\_HAnimDisplacer, 753
- X3D\_HAnimHumanoid, 753
- X3D\_HAnimJoint, 754
- X3D\_HAnimSegment, 755
- X3D\_HAnimSite, 756
- X3D\_ImageBackdropBackground, 757
- X3D\_ImageCubeMapTexture, 758
- X3D\_ImageTexture, 758
- X3D\_ImageTexture3D, 759
- X3D\_IndexedFaceSet, 760
- X3D\_IndexedLineSet, 761
- X3D\_IndexedQuadSet, 762
- X3D\_IndexedTriangleFanSet, 762
- X3D\_IndexedTriangleSet, 763
- X3D\_IndexedTriangleStripSet, 764
- X3D\_Inline, 765
- X3D\_IntegerSequencer, 766
- X3D\_IntegerTrigger, 767
- X3D\_IsoSurfaceVolumeData, 767
- X3D\_KeySensor, 768
- X3D\_Layer, 769
- X3D\_LayerSet, 769
- X3D\_Layout, 770
- X3D\_LayoutGroup, 771
- X3D\_LayoutLayer, 771
- X3D\_LinePickSensor, 772
- X3D\_LineProperties, 773
- X3D\_LineSensor, 774
- X3D\_LineSet, 775
- X3D\_LoadSensor, 775
- X3D\_LocalFog, 776
- X3D\_LOD, 777
- X3D\_Material, 778
- X3D\_Matrix3VertexAttribute, 778
- X3D\_Matrix4VertexAttribute, 779
- X3D\_MetadataBoolean, 779
- X3D\_MetadataDouble, 780
- X3D\_MetadataFloat, 781
- X3D\_MetadataInteger, 781
- X3D\_MetadataMFBool, 782
- X3D\_MetadataMFColor, 783
- X3D\_MetadataMFColorRGBA, 783
- X3D\_MetadataMFDouble, 784
- X3D\_MetadataMFFloat, 785
- X3D\_MetadataMFInt32, 785
- X3D\_MetadataMFMatrix3d, 786
- X3D\_MetadataMFMatrix3f, 787
- X3D\_MetadataMFMatrix4d, 787
- X3D\_MetadataMFMatrix4f, 788
- X3D\_MetadataMFNode, 789
- X3D\_MetadataMFRotation, 789
- X3D\_MetadataMFString, 790
- X3D\_MetadataMFTime, 791
- X3D\_MetadataMFVec2d, 791
- X3D\_MetadataMFVec2f, 792
- X3D\_MetadataMFVec3d, 793
- X3D\_MetadataMFVec3f, 793
- X3D\_MetadataMFVec4d, 794
- X3D\_MetadataMFVec4f, 795
- X3D\_MetadataSet, 795
- X3D\_MetadataSFBool, 796
- X3D\_MetadataSFColor, 797
- X3D\_MetadataSFColorRGBA, 797
- X3D\_MetadataSFDouble, 798
- X3D\_MetadataSFFloat, 799
- X3D\_MetadataSFImage, 799
- X3D\_MetadataSFInt32, 800
- X3D\_MetadataSFMMatrix3d, 801
- X3D\_MetadataSFMMatrix3f, 801
- X3D\_MetadataSFMMatrix4d, 802
- X3D\_MetadataSFMMatrix4f, 803
- X3D\_MetadataSFNode, 803
- X3D\_MetadataSFRotation, 804
- X3D\_MetadataSFString, 805
- X3D\_MetadataSFTime, 805

X3D\_MetadataSFVec2d, 806  
X3D\_MetadataSFVec2f, 807  
X3D\_MetadataSFVec3d, 807  
X3D\_MetadataSFVec3f, 808  
X3D\_MetadataSFVec4d, 809  
X3D\_MetadataSFVec4f, 809  
X3D\_MetadataString, 810  
X3D\_MotorJoint, 811  
X3D\_MovieTexture, 812  
X3D\_MultiTexture, 813  
X3D\_MultiTextureCoordinate, 814  
X3D\_MultiTextureTransform, 814  
X3D\_NavigationInfo, 815  
X3D\_Node, 816  
X3D\_Normal, 816  
X3D\_NormalInterpolator, 817  
X3D\_NurbsCurve, 818  
X3D\_NurbsCurve2D, 818  
X3D\_NurbsOrientationInterpolator, 819  
X3D\_NurbsPatchSurface, 820  
X3D\_NurbsPositionInterpolator, 821  
X3D\_NurbsSet, 821  
X3D\_NurbsSurfaceInterpolator, 822  
X3D\_NurbsSweptSurface, 823  
X3D\_NurbsSwungSurface, 824  
X3D\_NurbsTextureCoordinate, 824  
X3D\_NurbsTrimmedSurface, 825  
X3D\_OpacityMapVolumeStyle, 826  
X3D\_OrientationChaser, 827  
X3D\_OrientationDamper, 828  
X3D\_OrientationInterpolator, 829  
X3D\_OrthoViewpoint, 829  
X3D\_OSC\_Sensor, 830  
X3D\_PackagedShader, 831  
X3D\_ParticleSystem, 832  
X3D\_PickableGroup, 833  
X3D\_PixelTexture, 834  
X3D\_PixelTexture3D, 834  
X3D\_PlaneSensor, 835  
X3D\_PointEmitter, 836  
X3D\_PointLight, 837  
X3D\_PointPickSensor, 837  
X3D\_PointSensor, 838  
X3D\_PointSet, 839  
X3D\_Polyline2D, 840  
X3D\_PolylineEmitter, 840  
X3D\_Polypoint2D, 841  
X3D\_PolyRep, 842  
X3D\_PositionChaser, 843  
X3D\_PositionChaser2D, 844  
X3D\_PositionDamper, 845  
X3D\_PositionDamper2D, 846  
X3D\_PositionInterpolator, 847  
X3D\_PositionInterpolator2D, 847  
X3D\_PrimitivePickSensor, 848  
X3D\_ProgramShader, 849  
X3D\_ProjectionVolumeStyle, 849  
X3D\_Proto, 850  
X3D\_ProximitySensor, 851  
X3D\_QuadSet, 852  
X3D\_ReceiverPdu, 853  
X3D\_Rectangle2D, 854  
X3D\_RigidBody, 855  
X3D\_RigidBodyCollection, 856  
X3D\_ScalarChaser, 857  
X3D\_ScalarDamper, 858  
X3D\_ScalarInterpolator, 859  
X3D\_ScreenFontStyle, 859  
X3D\_ScreenGroup, 860  
X3D\_Script, 861  
X3D\_SegmentedVolumeData, 861  
X3D\_ShadedVolumeStyle, 862  
X3D\_ShaderPart, 863  
X3D\_ShaderProgram, 863  
X3D\_Shape, 864  
X3D\_SignalPdu, 865  
X3D\_SilhouetteEnhancementVolumeStyle, 866  
X3D\_SingleAxisHingeJoint, 867  
X3D\_SliderJoint, 868  
X3D\_Sound, 869  
X3D\_Sphere, 869  
X3D\_SphereSensor, 870  
X3D\_SplinePositionInterpolator, 871  
X3D\_SplinePositionInterpolator2D, 872  
X3D\_SplineScalarInterpolator, 872  
X3D\_SpotLight, 873  
X3D\_SquadOrientationInterpolator, 874  
X3D\_StaticGroup, 875  
X3D\_StringSensor, 875  
X3D\_SurfaceEmitter, 876  
X3D\_Switch, 877  
X3D\_Teapot, 878  
X3D\_TexCoordChaser2D, 878  
X3D\_TexCoordDamper2D, 879  
X3D\_Text, 880  
X3D\_TextureBackground, 881  
X3D\_TextureCoordinate, 882  
X3D\_TextureCoordinate3D, 882  
X3D\_TextureCoordinate4D, 883  
X3D\_TextureCoordinateGenerator, 883  
X3D\_TextureProperties, 884  
X3D\_TextureTransform, 885  
X3D\_TextureTransform3D, 885  
X3D\_TextureTransformMatrix3D, 886  
X3D\_TimeSensor, 886  
X3D\_TimeTrigger, 887  
X3D\_ToneMappedVolumeStyle, 888  
X3D\_TouchSensor, 889  
X3D\_TrackingSensor, 889  
X3D\_Transform, 890  
X3D\_TransformSensor, 891  
X3D\_TransmitterPdu, 892  
X3D\_TriangleFanSet, 893  
X3D\_TriangleSet, 894  
X3D\_TriangleSet2D, 895  
X3D\_TriangleStripSet, 896

X3D\_TwoSidedMaterial, 896  
X3D\_UniversalJoint, 897  
X3D\_Viewpoint, 898  
X3D\_ViewpointGroup, 899  
X3D\_Viewport, 900  
X3D\_Virt, 901  
X3D\_VisibilitySensor, 901  
X3D\_VolumeData, 902  
X3D\_VolumeEmitter, 903  
X3D\_VolumePickSensor, 903  
X3D\_WindPhysicsModel, 904  
X3D\_WorldInfo, 905  
xml\_user\_data, 942  
XY, 943  
  
zip64\_internal, 943  
zip\_fileinfo, 944  
zlib\_filefunc64\_32\_def\_s, 944  
zlib\_filefunc64\_def\_s, 944  
zlib\_filefunc\_def\_s, 945  
zone, 945