

FreeWRL/FreeX3D

3.0.0

Generated by Doxygen 1.8.13



# Contents

<b>1</b>	<b>cson JSON API</b>	<b>1</b>
<b>2</b>	<b>Hierarchical Index</b>	<b>3</b>
2.1	Class Hierarchy . . . . .	3
<b>3</b>	<b>Data Structure Index</b>	<b>27</b>
3.1	Data Structures . . . . .	27
<b>4</b>	<b>Data Structure Documentation</b>	<b>51</b>
4.1	_BrowserNative Struct Reference . . . . .	51
4.1.1	Detailed Description . . . . .	51
4.2	_cd_list_t Struct Reference . . . . .	51
4.2.1	Detailed Description . . . . .	51
4.3	_CRnodeStruct Struct Reference . . . . .	52
4.3.1	Detailed Description . . . . .	52
4.4	_FW_PluginInstance Struct Reference . . . . .	52
4.4.1	Detailed Description . . . . .	52
4.5	_GLwDrawingAreaClassPart Struct Reference . . . . .	53
4.5.1	Detailed Description . . . . .	53
4.6	_GLwDrawingAreaClassRec Struct Reference . . . . .	53
4.6.1	Detailed Description . . . . .	53
4.7	_GLwDrawingAreaRec Struct Reference . . . . .	53
4.7.1	Detailed Description . . . . .	53
4.8	_intX3D_MFBool Struct Reference . . . . .	54
4.8.1	Detailed Description . . . . .	54

4.9	_intX3D_MFColor Struct Reference . . . . .	54
4.9.1	Detailed Description . . . . .	54
4.10	_intX3D_MFColorRGBA Struct Reference . . . . .	54
4.10.1	Detailed Description . . . . .	54
4.11	_intX3D_MFFloat Struct Reference . . . . .	55
4.11.1	Detailed Description . . . . .	55
4.12	_intX3D_MFImage Struct Reference . . . . .	55
4.12.1	Detailed Description . . . . .	55
4.13	_intX3D_MFInt32 Struct Reference . . . . .	55
4.13.1	Detailed Description . . . . .	55
4.14	_intX3D_MFNode Struct Reference . . . . .	56
4.14.1	Detailed Description . . . . .	56
4.15	_intX3D_MFRotation Struct Reference . . . . .	56
4.15.1	Detailed Description . . . . .	56
4.16	_intX3D_MFString Struct Reference . . . . .	56
4.16.1	Detailed Description . . . . .	56
4.17	_intX3D_MFTime Struct Reference . . . . .	57
4.17.1	Detailed Description . . . . .	57
4.18	_intX3D_MFVec2d Struct Reference . . . . .	57
4.18.1	Detailed Description . . . . .	57
4.19	_intX3D_MFVec2f Struct Reference . . . . .	57
4.19.1	Detailed Description . . . . .	57
4.20	_intX3D_MFVec3d Struct Reference . . . . .	58
4.20.1	Detailed Description . . . . .	58
4.21	_intX3D_MFVec3f Struct Reference . . . . .	58
4.21.1	Detailed Description . . . . .	58
4.22	_intX3D_SFBool Struct Reference . . . . .	58
4.22.1	Detailed Description . . . . .	58
4.23	_intX3D_SFColor Struct Reference . . . . .	59
4.23.1	Detailed Description . . . . .	59

4.24	_intX3D_SFColorRGBA Struct Reference . . . . .	59
4.24.1	Detailed Description . . . . .	59
4.25	_intX3D_SFFloat Struct Reference . . . . .	59
4.25.1	Detailed Description . . . . .	59
4.26	_intX3D_SFImage Struct Reference . . . . .	60
4.26.1	Detailed Description . . . . .	60
4.27	_intX3D_SFInt32 Struct Reference . . . . .	60
4.27.1	Detailed Description . . . . .	60
4.28	_intX3D_SFNode Struct Reference . . . . .	60
4.28.1	Detailed Description . . . . .	60
4.29	_intX3D_SFRotation Struct Reference . . . . .	61
4.29.1	Detailed Description . . . . .	61
4.30	_intX3D_SFString Struct Reference . . . . .	61
4.30.1	Detailed Description . . . . .	61
4.31	_intX3D_SFTime Struct Reference . . . . .	61
4.31.1	Detailed Description . . . . .	61
4.32	_intX3D_SFVec2d Struct Reference . . . . .	62
4.32.1	Detailed Description . . . . .	62
4.33	_intX3D_SFVec2f Struct Reference . . . . .	62
4.33.1	Detailed Description . . . . .	62
4.34	_intX3D_SFVec3d Struct Reference . . . . .	62
4.34.1	Detailed Description . . . . .	62
4.35	_intX3D_SFVec3f Struct Reference . . . . .	63
4.35.1	Detailed Description . . . . .	63
4.36	_intX3DEventIn Struct Reference . . . . .	63
4.36.1	Detailed Description . . . . .	63
4.37	_NPByteRange Struct Reference . . . . .	63
4.37.1	Detailed Description . . . . .	64
4.38	_NPEmbedPrint Struct Reference . . . . .	64
4.38.1	Detailed Description . . . . .	64

4.39	_NPFullPrint Struct Reference . . . . .	64
4.39.1	Detailed Description . . . . .	64
4.40	_NPImageExpose Struct Reference . . . . .	65
4.40.1	Detailed Description . . . . .	65
4.41	_NPNetscapeFuncs Struct Reference . . . . .	65
4.41.1	Detailed Description . . . . .	66
4.42	_NPP Struct Reference . . . . .	66
4.42.1	Detailed Description . . . . .	66
4.43	_NPPluginFuncs Struct Reference . . . . .	67
4.43.1	Detailed Description . . . . .	67
4.44	_NPPrint Struct Reference . . . . .	67
4.44.1	Detailed Description . . . . .	67
4.45	_NPRect Struct Reference . . . . .	68
4.45.1	Detailed Description . . . . .	68
4.46	_NPSavedData Struct Reference . . . . .	68
4.46.1	Detailed Description . . . . .	68
4.47	_NPSize Struct Reference . . . . .	68
4.47.1	Detailed Description . . . . .	68
4.48	_NPStream Struct Reference . . . . .	69
4.48.1	Detailed Description . . . . .	69
4.49	_NPString Struct Reference . . . . .	69
4.49.1	Detailed Description . . . . .	69
4.50	_NPVariant Struct Reference . . . . .	69
4.50.1	Detailed Description . . . . .	70
4.51	_NPWindow Struct Reference . . . . .	70
4.51.1	Detailed Description . . . . .	70
4.52	_s_list_t Struct Reference . . . . .	70
4.52.1	Detailed Description . . . . .	70
4.53	freeWRLSAI_cpp::_SAIParameter Class Reference . . . . .	71
4.53.1	Detailed Description . . . . .	71

4.54	_SFColorNative Struct Reference . . . . .	71
4.54.1	Detailed Description . . . . .	71
4.55	_SFColorRGBANative Struct Reference . . . . .	71
4.55.1	Detailed Description . . . . .	71
4.56	_SFImageNative Struct Reference . . . . .	72
4.56.1	Detailed Description . . . . .	72
4.57	_SFNodeNative Struct Reference . . . . .	72
4.57.1	Detailed Description . . . . .	72
4.58	_SFRotationNative Struct Reference . . . . .	72
4.58.1	Detailed Description . . . . .	72
4.59	_SFVec2fNative Struct Reference . . . . .	73
4.59.1	Detailed Description . . . . .	73
4.60	_SFVec3dNative Struct Reference . . . . .	73
4.60.1	Detailed Description . . . . .	73
4.61	_SFVec3fNative Struct Reference . . . . .	73
4.61.1	Detailed Description . . . . .	73
4.62	_SFVec4dNative Struct Reference . . . . .	74
4.62.1	Detailed Description . . . . .	74
4.63	_SFVec4fNative Struct Reference . . . . .	74
4.63.1	Detailed Description . . . . .	74
4.64	_urlRequest Struct Reference . . . . .	74
4.64.1	Detailed Description . . . . .	74
4.65	_X3DNode Union Reference . . . . .	75
4.65.1	Detailed Description . . . . .	75
4.66	ActiveRegion Struct Reference . . . . .	75
4.66.1	Detailed Description . . . . .	76
4.67	anyVrml Union Reference . . . . .	76
4.67.1	Detailed Description . . . . .	76
4.68	Arc Class Reference . . . . .	76
4.68.1	Detailed Description . . . . .	77

4.69	ArcSdirSorter Class Reference . . . . .	77
4.69.1	Detailed Description . . . . .	78
4.70	ArcSorter Class Reference . . . . .	78
4.70.1	Detailed Description . . . . .	78
4.71	ArcTdirSorter Class Reference . . . . .	79
4.71.1	Detailed Description . . . . .	79
4.72	ArcTessellator Class Reference . . . . .	79
4.72.1	Detailed Description . . . . .	79
4.73	ArgListType Struct Reference . . . . .	80
4.73.1	Detailed Description . . . . .	80
4.74	Atlas Struct Reference . . . . .	80
4.74.1	Detailed Description . . . . .	80
4.75	AtlasEntry Struct Reference . . . . .	80
4.75.1	Detailed Description . . . . .	81
4.76	AtlasEntrySet Struct Reference . . . . .	81
4.76.1	Detailed Description . . . . .	81
4.77	AtlasFont Struct Reference . . . . .	81
4.77.1	Detailed Description . . . . .	82
4.78	Backend Class Reference . . . . .	82
4.78.1	Detailed Description . . . . .	83
4.79	vrml.BaseNode Class Reference . . . . .	83
4.79.1	Detailed Description . . . . .	83
4.80	BasePlugin Class Reference . . . . .	83
4.80.1	Detailed Description . . . . .	84
4.81	BasicCurveEvaluator Class Reference . . . . .	84
4.81.1	Detailed Description . . . . .	85
4.82	BasicSurfaceEvaluator Class Reference . . . . .	85
4.82.1	Detailed Description . . . . .	86
4.83	BezierArc Struct Reference . . . . .	86
4.83.1	Detailed Description . . . . .	86



4.84 bezierPatch Struct Reference . . . . .	86
4.84.1 Detailed Description . . . . .	87
4.85 bezierPatchMesh Struct Reference . . . . .	87
4.85.1 Detailed Description . . . . .	87
4.86 Bin Class Reference . . . . .	87
4.86.1 Detailed Description . . . . .	88
4.87 bindablestack Struct Reference . . . . .	88
4.87.1 Detailed Description . . . . .	88
4.88 block Struct Reference . . . . .	88
4.88.1 Detailed Description . . . . .	89
4.89 Breakpt Struct Reference . . . . .	89
4.89.1 Detailed Description . . . . .	89
4.90 brotoDefpair Struct Reference . . . . .	89
4.90.1 Detailed Description . . . . .	89
4.91 brotoIS Struct Reference . . . . .	90
4.91.1 Detailed Description . . . . .	90
4.92 brotoRoute Struct Reference . . . . .	90
4.92.1 Detailed Description . . . . .	90
4.93 brouteEnd Struct Reference . . . . .	90
4.93.1 Detailed Description . . . . .	91
4.94 org.web3d.x3d.sai.Browser Interface Reference . . . . .	91
4.94.1 Detailed Description . . . . .	92
4.95 vrml.Browser Class Reference . . . . .	92
4.95.1 Detailed Description . . . . .	92
4.96 vrml.external.Browser Class Reference . . . . .	92
4.96.1 Detailed Description . . . . .	94
4.97 org.web3d.x3d.sai.BrowserEvent Class Reference . . . . .	94
4.97.1 Detailed Description . . . . .	95
4.98 sai.BrowserFactory Class Reference . . . . .	95
4.98.1 Detailed Description . . . . .	95

4.99	org.web3d.x3d.sai.BrowserFactoryImpl Interface Reference . . . . .	95
4.99.1	Detailed Description . . . . .	96
4.100	vrml.external.BrowserGlobals Class Reference . . . . .	96
4.100.1	Detailed Description . . . . .	96
4.101	sai.BrowserGlobals Class Reference . . . . .	96
4.101.1	Detailed Description . . . . .	96
4.102	org.web3d.x3d.sai.BrowserInterface Interface Reference . . . . .	97
4.102.1	Detailed Description . . . . .	97
4.103	vrml.external.BrowserInterface Interface Reference . . . . .	97
4.103.1	Detailed Description . . . . .	97
4.104	org.web3d.x3d.sai.BrowserListener Interface Reference . . . . .	98
4.104.1	Detailed Description . . . . .	98
4.105	freeWRLSAI_cpp::browserNotSharedException Class Reference . . . . .	98
4.105.1	Detailed Description . . . . .	98
4.106	org.web3d.x3d.sai.BrowserNotSharedException Class Reference . . . . .	99
4.106.1	Detailed Description . . . . .	99
4.107	Buffer Class Reference . . . . .	99
4.107.1	Detailed Description . . . . .	99
4.108	BUTitem Struct Reference . . . . .	99
4.108.1	Detailed Description . . . . .	100
4.109	CachedVertex Struct Reference . . . . .	100
4.109.1	Detailed Description . . . . .	100
4.110	CachingEvaluator Class Reference . . . . .	100
4.110.1	Detailed Description . . . . .	101
4.111	cbDataExactName Struct Reference . . . . .	101
4.111.1	Detailed Description . . . . .	101
4.112	cbDataRootNameAndRouteDir Struct Reference . . . . .	101
4.112.1	Detailed Description . . . . .	101
4.113	CdIIFreeWRL Class Reference . . . . .	102
4.113.1	Detailed Description . . . . .	103

4.114	chardata Struct Reference . . . . .	103
4.114.1	Detailed Description . . . . .	103
4.115	chaser_ptrs Struct Reference . . . . .	103
4.115.1	Detailed Description . . . . .	103
4.116	cline Struct Reference . . . . .	104
4.116.1	Detailed Description . . . . .	104
4.117	coded_block_pattern_entry Struct Reference . . . . .	104
4.117.1	Detailed Description . . . . .	104
4.118	colorScheme Struct Reference . . . . .	104
4.118.1	Detailed Description . . . . .	104
4.119	command Struct Reference . . . . .	105
4.119.1	Detailed Description . . . . .	105
4.120	org.web3d.x3d.sai.ComponentInfo Interface Reference . . . . .	105
4.120.1	Detailed Description . . . . .	105
4.121	connection_info_struct Struct Reference . . . . .	106
4.121.1	Detailed Description . . . . .	106
4.122	org.web3d.x3d.sai.ConnectionException Class Reference . . . . .	106
4.122.1	Detailed Description . . . . .	106
4.123	freeWRLSAI_cpp::connectionException Class Reference . . . . .	107
4.123.1	Detailed Description . . . . .	107
4.124	consoleLine Struct Reference . . . . .	107
4.124.1	Detailed Description . . . . .	107
4.125	vrml.ConstField Class Reference . . . . .	108
4.125.1	Detailed Description . . . . .	108
4.126	vrml.field.ConstMFColor Class Reference . . . . .	108
4.126.1	Detailed Description . . . . .	109
4.127	vrml.field.ConstMFFloat Class Reference . . . . .	109
4.127.1	Detailed Description . . . . .	110
4.128	vrml.ConstMField Class Reference . . . . .	110
4.128.1	Detailed Description . . . . .	111

4.129vrml.field.ConstMFIInt32 Class Reference . . . . .	111
4.129.1 Detailed Description . . . . .	112
4.130vrml.field.ConstMFNode Class Reference . . . . .	112
4.130.1 Detailed Description . . . . .	112
4.131vrml.field.ConstMFRotation Class Reference . . . . .	113
4.131.1 Detailed Description . . . . .	113
4.132vrml.field.ConstMFString Class Reference . . . . .	114
4.132.1 Detailed Description . . . . .	114
4.133vrml.field.ConstMFTime Class Reference . . . . .	114
4.133.1 Detailed Description . . . . .	115
4.134vrml.field.ConstMFVec2f Class Reference . . . . .	115
4.134.1 Detailed Description . . . . .	116
4.135vrml.field.ConstMFVec3f Class Reference . . . . .	116
4.135.1 Detailed Description . . . . .	116
4.136vrml.field.ConstSFBool Class Reference . . . . .	117
4.136.1 Detailed Description . . . . .	117
4.137vrml.field.ConstSFColor Class Reference . . . . .	117
4.137.1 Detailed Description . . . . .	118
4.138vrml.field.ConstSFFloat Class Reference . . . . .	118
4.138.1 Detailed Description . . . . .	119
4.139vrml.field.ConstSFImage Class Reference . . . . .	119
4.139.1 Detailed Description . . . . .	119
4.140vrml.field.ConstSFInt32 Class Reference . . . . .	120
4.140.1 Detailed Description . . . . .	120
4.141vrml.field.ConstSFNode Class Reference . . . . .	120
4.141.1 Detailed Description . . . . .	121
4.142vrml.field.ConstSFRotation Class Reference . . . . .	121
4.142.1 Detailed Description . . . . .	121
4.143vrml.field.ConstSFString Class Reference . . . . .	122
4.143.1 Detailed Description . . . . .	122

4.144vrml.field.ConstSFTIME Class Reference . . . . .	122
4.144.1 Detailed Description . . . . .	123
4.145vrml.field.ConstSFVec2f Class Reference . . . . .	123
4.145.1 Detailed Description . . . . .	123
4.146vrml.field.ConstSFVec3f Class Reference . . . . .	124
4.146.1 Detailed Description . . . . .	124
4.147contenttype Struct Reference . . . . .	124
4.147.1 Detailed Description . . . . .	124
4.148contenttype_captiontext Struct Reference . . . . .	125
4.148.1 Detailed Description . . . . .	125
4.149contenttype_e3dmouse Struct Reference . . . . .	125
4.149.1 Detailed Description . . . . .	125
4.150contenttype_layer Struct Reference . . . . .	126
4.150.1 Detailed Description . . . . .	126
4.151contenttype_multitouch Struct Reference . . . . .	126
4.151.1 Detailed Description . . . . .	126
4.152contenttype_orientation Struct Reference . . . . .	126
4.152.1 Detailed Description . . . . .	127
4.153contenttype_quadrant Struct Reference . . . . .	127
4.153.1 Detailed Description . . . . .	127
4.154contenttype_scene Struct Reference . . . . .	127
4.154.1 Detailed Description . . . . .	127
4.155contenttype_splitter Struct Reference . . . . .	127
4.155.1 Detailed Description . . . . .	128
4.156contenttype_statusbar Struct Reference . . . . .	128
4.156.1 Detailed Description . . . . .	128
4.157contenttype_stereo_anaglyph Struct Reference . . . . .	128
4.157.1 Detailed Description . . . . .	128
4.158contenttype_stereo_shutter Struct Reference . . . . .	128
4.158.1 Detailed Description . . . . .	129

4.159	contenttype_stereo_sidebyside Struct Reference . . . . .	129
4.159.1	Detailed Description . . . . .	129
4.160	contenttype_stereo_updown Struct Reference . . . . .	129
4.160.1	Detailed Description . . . . .	129
4.161	contenttype_switch Struct Reference . . . . .	129
4.161.1	Detailed Description . . . . .	130
4.162	contenttype_textpanel Struct Reference . . . . .	130
4.162.1	Detailed Description . . . . .	130
4.163	contenttype_texturegrid Struct Reference . . . . .	131
4.163.1	Detailed Description . . . . .	131
4.164	CoveAndTiler Class Reference . . . . .	131
4.164.1	Detailed Description . . . . .	132
4.165	CPlugin Class Reference . . . . .	132
4.165.1	Detailed Description . . . . .	132
4.165.2	Constructor & Destructor Documentation . . . . .	132
4.165.2.1	CPlugin() . . . . .	133
4.166	CR_RegStruct Struct Reference . . . . .	133
4.166.1	Detailed Description . . . . .	133
4.167	CRjsnameStruct Struct Reference . . . . .	133
4.167.1	Detailed Description . . . . .	134
4.168	CRscriptStruct Struct Reference . . . . .	134
4.168.1	Detailed Description . . . . .	134
4.169	CRStruct Struct Reference . . . . .	134
4.169.1	Detailed Description . . . . .	135
4.170	cson_array Struct Reference . . . . .	135
4.170.1	Detailed Description . . . . .	135
4.171	cson_buffer Struct Reference . . . . .	136
4.171.1	Detailed Description . . . . .	136
4.171.2	Field Documentation . . . . .	136
4.171.2.1	capacity . . . . .	137

4.171.2.2 mem . . . . .	137
4.171.2.3 timesExpanded . . . . .	137
4.171.2.4 used . . . . .	137
4.172cson_data_source_StringSource_ Struct Reference . . . . .	138
4.172.1 Detailed Description . . . . .	138
4.172.2 Field Documentation . . . . .	138
4.172.2.1 end . . . . .	138
4.172.2.2 pos . . . . .	138
4.172.2.3 str . . . . .	139
4.173cson_kv Struct Reference . . . . .	139
4.173.1 Detailed Description . . . . .	139
4.174cson_kv_list Struct Reference . . . . .	139
4.174.1 Detailed Description . . . . .	140
4.175cson_object Struct Reference . . . . .	140
4.175.1 Detailed Description . . . . .	140
4.176cson_object_iterator Struct Reference . . . . .	141
4.176.1 Detailed Description . . . . .	141
4.177cson_output_opt Struct Reference . . . . .	141
4.177.1 Detailed Description . . . . .	142
4.177.2 Field Documentation . . . . .	142
4.177.2.1 escapeForwardSlashes . . . . .	142
4.177.2.2 indentation . . . . .	142
4.177.2.3 maxDepth . . . . .	143
4.178cson_parse_info Struct Reference . . . . .	143
4.178.1 Detailed Description . . . . .	143
4.179cson_parse_opt Struct Reference . . . . .	144
4.179.1 Detailed Description . . . . .	144
4.179.2 Field Documentation . . . . .	144
4.179.2.1 allowComments . . . . .	144
4.180cson_parser Struct Reference . . . . .	144

4.180.1 Detailed Description . . . . .	145
4.181cson_string Struct Reference . . . . .	145
4.181.1 Detailed Description . . . . .	145
4.182cson_value Struct Reference . . . . .	146
4.182.1 Detailed Description . . . . .	146
4.182.2 Field Documentation . . . . .	147
4.182.2.1 api . . . . .	147
4.182.2.2 refcount . . . . .	148
4.182.2.3 value . . . . .	148
4.183cson_value_api Struct Reference . . . . .	148
4.183.1 Detailed Description . . . . .	149
4.183.2 Field Documentation . . . . .	149
4.183.2.1 cleanup . . . . .	149
4.184cson_value_list Struct Reference . . . . .	149
4.184.1 Detailed Description . . . . .	149
4.185curfile64_info Struct Reference . . . . .	150
4.185.1 Detailed Description . . . . .	150
4.186currayhit Struct Reference . . . . .	150
4.186.1 Detailed Description . . . . .	150
4.187Curve Class Reference . . . . .	151
4.187.1 Detailed Description . . . . .	151
4.188curveEvalMachine Struct Reference . . . . .	151
4.188.1 Detailed Description . . . . .	151
4.189Curvelist Class Reference . . . . .	152
4.189.1 Detailed Description . . . . .	152
4.190damper_ptr Struct Reference . . . . .	152
4.190.1 Detailed Description . . . . .	152
4.191datChnk Struct Reference . . . . .	153
4.191.1 Detailed Description . . . . .	153
4.192dct_dc_size_entry Struct Reference . . . . .	153



4.192.1 Detailed Description . . . . .	153
4.193DDS_header Union Reference . . . . .	153
4.193.1 Detailed Description . . . . .	154
4.194DdsLoadInfo Struct Reference . . . . .	154
4.194.1 Detailed Description . . . . .	155
4.195Dict Struct Reference . . . . .	155
4.195.1 Detailed Description . . . . .	155
4.196DictNode Struct Reference . . . . .	155
4.196.1 Detailed Description . . . . .	155
4.197directedLine Class Reference . . . . .	156
4.197.1 Detailed Description . . . . .	157
4.198DisplayList Class Reference . . . . .	157
4.198.1 Detailed Description . . . . .	157
4.199freeWRLSAI_cpp::disposedException Class Reference . . . . .	157
4.199.1 Detailed Description . . . . .	158
4.200DlNode Struct Reference . . . . .	158
4.200.1 Detailed Description . . . . .	158
4.201draw_call_params Struct Reference . . . . .	159
4.201.1 Detailed Description . . . . .	159
4.202duk__bigint Struct Reference . . . . .	159
4.202.1 Detailed Description . . . . .	159
4.203duk__compile_raw_args Struct Reference . . . . .	159
4.203.1 Detailed Description . . . . .	160
4.204duk__compiler_stkstate Struct Reference . . . . .	160
4.204.1 Detailed Description . . . . .	160
4.205duk__decode_context Struct Reference . . . . .	160
4.205.1 Detailed Description . . . . .	160
4.206duk__encode_context Struct Reference . . . . .	161
4.206.1 Detailed Description . . . . .	161
4.207duk__exp_limits Struct Reference . . . . .	161

4.207.1 Detailed Description . . . . .	161
4.208duk__id_lookup_result Struct Reference . . . . .	161
4.208.1 Detailed Description . . . . .	161
4.209duk__numconv_stringify_ctx Struct Reference . . . . .	162
4.209.1 Detailed Description . . . . .	162
4.210duk__objlit_state Struct Reference . . . . .	162
4.210.1 Detailed Description . . . . .	162
4.211duk__pcall_prop_args Struct Reference . . . . .	163
4.211.1 Detailed Description . . . . .	163
4.212duk__re_disjunction_info Struct Reference . . . . .	163
4.212.1 Detailed Description . . . . .	163
4.213duk__transform_context Struct Reference . . . . .	163
4.213.1 Detailed Description . . . . .	163
4.214duk__activation Struct Reference . . . . .	164
4.214.1 Detailed Description . . . . .	164
4.215duk__bitdecoder_ctx Struct Reference . . . . .	164
4.215.1 Detailed Description . . . . .	164
4.216duk__bitencoder_ctx Struct Reference . . . . .	164
4.216.1 Detailed Description . . . . .	165
4.217duk__breakpoint Struct Reference . . . . .	165
4.217.1 Detailed Description . . . . .	165
4.218duk__bufwriter_ctx Struct Reference . . . . .	165
4.218.1 Detailed Description . . . . .	165
4.219duk__catcher Struct Reference . . . . .	166
4.219.1 Detailed Description . . . . .	166
4.220duk__compiler_ctx Struct Reference . . . . .	166
4.220.1 Detailed Description . . . . .	166
4.221duk__compiler_func Struct Reference . . . . .	167
4.221.1 Detailed Description . . . . .	168
4.222duk__compiler_instr Struct Reference . . . . .	168

4.222.1 Detailed Description . . . . .	168
4.223duk_double_union Union Reference . . . . .	168
4.223.1 Detailed Description . . . . .	168
4.224duk_function_list_entry Struct Reference . . . . .	169
4.224.1 Detailed Description . . . . .	169
4.225duk_harray Struct Reference . . . . .	169
4.225.1 Detailed Description . . . . .	169
4.226duk_hbuffer Struct Reference . . . . .	169
4.226.1 Detailed Description . . . . .	169
4.227duk_hbuffer_dynamic Struct Reference . . . . .	170
4.227.1 Detailed Description . . . . .	170
4.228duk_hbuffer_external Struct Reference . . . . .	170
4.228.1 Detailed Description . . . . .	170
4.229duk_hbuffer_fixed Struct Reference . . . . .	170
4.229.1 Detailed Description . . . . .	171
4.230duk_hbufobj Struct Reference . . . . .	171
4.230.1 Detailed Description . . . . .	171
4.231duk_hcompfunc Struct Reference . . . . .	171
4.231.1 Detailed Description . . . . .	171
4.232duk_heap Struct Reference . . . . .	172
4.232.1 Detailed Description . . . . .	172
4.233duk_heaphdr Struct Reference . . . . .	172
4.233.1 Detailed Description . . . . .	173
4.234duk_heaphdr_string Struct Reference . . . . .	173
4.234.1 Detailed Description . . . . .	173
4.235duk_hnatfunc Struct Reference . . . . .	173
4.235.1 Detailed Description . . . . .	173
4.236duk_hobject Struct Reference . . . . .	174
4.236.1 Detailed Description . . . . .	174
4.237duk_hstring Struct Reference . . . . .	174

4.237.1 Detailed Description . . . . .	174
4.238duk_hstring_external Struct Reference . . . . .	174
4.238.1 Detailed Description . . . . .	175
4.239duk_hthread Struct Reference . . . . .	175
4.239.1 Detailed Description . . . . .	175
4.240duk_internal_thread_state Struct Reference . . . . .	176
4.240.1 Detailed Description . . . . .	176
4.241duk_ispec Struct Reference . . . . .	176
4.241.1 Detailed Description . . . . .	176
4.242duk_ivalue Struct Reference . . . . .	176
4.242.1 Detailed Description . . . . .	177
4.243duk_jmpbuf Struct Reference . . . . .	177
4.243.1 Detailed Description . . . . .	177
4.244duk_json_dec_ctx Struct Reference . . . . .	177
4.244.1 Detailed Description . . . . .	177
4.245duk_json_enc_ctx Struct Reference . . . . .	178
4.245.1 Detailed Description . . . . .	178
4.246duk_labelinfo Struct Reference . . . . .	178
4.246.1 Detailed Description . . . . .	178
4.247duk_lexer_codepoint Struct Reference . . . . .	179
4.247.1 Detailed Description . . . . .	179
4.248duk_lexer_ctx Struct Reference . . . . .	179
4.248.1 Detailed Description . . . . .	179
4.249duk_lexer_point Struct Reference . . . . .	179
4.249.1 Detailed Description . . . . .	180
4.250duk_ljstate Struct Reference . . . . .	180
4.250.1 Detailed Description . . . . .	180
4.251duk_memory_functions Struct Reference . . . . .	180
4.251.1 Detailed Description . . . . .	180
4.252duk_number_list_entry Struct Reference . . . . .	181

4.252.1 Detailed Description . . . . .	181
4.253duk_propaccessor Struct Reference . . . . .	181
4.253.1 Detailed Description . . . . .	181
4.254duk_propdesc Struct Reference . . . . .	181
4.254.1 Detailed Description . . . . .	182
4.255duk_propvalue Union Reference . . . . .	182
4.255.1 Detailed Description . . . . .	182
4.256duk_re_compiler_ctx Struct Reference . . . . .	182
4.256.1 Detailed Description . . . . .	182
4.257duk_re_matcher_ctx Struct Reference . . . . .	183
4.257.1 Detailed Description . . . . .	183
4.258duk_re_token Struct Reference . . . . .	183
4.258.1 Detailed Description . . . . .	183
4.259duk_strcache Struct Reference . . . . .	184
4.259.1 Detailed Description . . . . .	184
4.260duk_strtab_entry Struct Reference . . . . .	184
4.260.1 Detailed Description . . . . .	184
4.261duk_thread_state Struct Reference . . . . .	184
4.261.1 Detailed Description . . . . .	185
4.262duk_time_components Struct Reference . . . . .	185
4.262.1 Detailed Description . . . . .	185
4.263duk_token Struct Reference . . . . .	185
4.263.1 Detailed Description . . . . .	186
4.264duk_tval_unused Struct Reference . . . . .	186
4.264.1 Detailed Description . . . . .	186
4.265EAI_Extra_Data Struct Reference . . . . .	186
4.265.1 Detailed Description . . . . .	186
4.266EAI_ListenerStruct Struct Reference . . . . .	187
4.266.1 Detailed Description . . . . .	187
4.267vrml.external.FreeWRLEAI.EAIAsyncMessage Class Reference . . . . .	187

4.267.1 Detailed Description . . . . .	187
4.268sai.eai.EAIAsyncMessage Class Reference . . . . .	187
4.268.1 Detailed Description . . . . .	188
4.269vrml.external.FreeWRLEAI.EAIAsyncQueue Class Reference . . . . .	188
4.269.1 Detailed Description . . . . .	188
4.270sai.eai.EAIAsyncQueue Class Reference . . . . .	188
4.270.1 Detailed Description . . . . .	188
4.271sai.eai.EAIAsyncThread Class Reference . . . . .	189
4.271.1 Detailed Description . . . . .	189
4.272vrml.external.FreeWRLEAI.EAIAsyncThread Class Reference . . . . .	189
4.272.1 Detailed Description . . . . .	189
4.273sai.eai.EAIinThread Class Reference . . . . .	190
4.273.1 Detailed Description . . . . .	190
4.274vrml.external.FreeWRLEAI.EAIinThread Class Reference . . . . .	190
4.274.1 Detailed Description . . . . .	190
4.275sai.eai.EAIMessage Class Reference . . . . .	191
4.275.1 Detailed Description . . . . .	191
4.276vrml.external.FreeWRLEAI.EAIMessage Class Reference . . . . .	191
4.276.1 Detailed Description . . . . .	191
4.277EAINodeIndexStruct Struct Reference . . . . .	191
4.277.1 Detailed Description . . . . .	192
4.278EAINodeParams Struct Reference . . . . .	192
4.278.1 Detailed Description . . . . .	192
4.279sai.eai.EAIoutQueue Class Reference . . . . .	192
4.279.1 Detailed Description . . . . .	192
4.280vrml.external.FreeWRLEAI.EAIoutQueue Class Reference . . . . .	193
4.280.1 Detailed Description . . . . .	193
4.281sai.eai.EAIoutThread Class Reference . . . . .	193
4.281.1 Detailed Description . . . . .	193
4.282vrml.external.FreeWRLEAI.EAIoutThread Class Reference . . . . .	194

4.282.1 Detailed Description . . . . .	194
4.283ECMAValueStruct Struct Reference . . . . .	194
4.283.1 Detailed Description . . . . .	194
4.284EdgePair Struct Reference . . . . .	195
4.284.1 Detailed Description . . . . .	195
4.285vrml.Event Class Reference . . . . .	195
4.285.1 Detailed Description . . . . .	195
4.286vrml.external.field.EventIn Class Reference . . . . .	196
4.286.1 Detailed Description . . . . .	196
4.287vrml.external.field.EventInMFColor Class Reference . . . . .	197
4.287.1 Detailed Description . . . . .	197
4.288vrml.external.field.EventInMFFloat Class Reference . . . . .	197
4.288.1 Detailed Description . . . . .	197
4.289vrml.external.field.EventInMFInt32 Class Reference . . . . .	198
4.289.1 Detailed Description . . . . .	198
4.290vrml.external.field.EventInMFNode Class Reference . . . . .	198
4.290.1 Detailed Description . . . . .	198
4.291vrml.external.field.EventInMFRotation Class Reference . . . . .	199
4.291.1 Detailed Description . . . . .	199
4.292vrml.external.field.EventInMFString Class Reference . . . . .	199
4.292.1 Detailed Description . . . . .	199
4.293vrml.external.field.EventInMFVec2f Class Reference . . . . .	200
4.293.1 Detailed Description . . . . .	200
4.294vrml.external.field.EventInMFVec3f Class Reference . . . . .	200
4.294.1 Detailed Description . . . . .	200
4.295vrml.external.field.EventInSFBool Class Reference . . . . .	201
4.295.1 Detailed Description . . . . .	201
4.296vrml.external.field.EventInSFColor Class Reference . . . . .	201
4.296.1 Detailed Description . . . . .	201
4.297vrml.external.field.EventInSFFloat Class Reference . . . . .	202

4.297.1 Detailed Description . . . . .	202
4.298vrml.external.field.EventInSFImage Class Reference . . . . .	202
4.298.1 Detailed Description . . . . .	202
4.299vrml.external.field.EventInSFInt32 Class Reference . . . . .	203
4.299.1 Detailed Description . . . . .	203
4.300vrml.external.field.EventInSFNode Class Reference . . . . .	203
4.300.1 Detailed Description . . . . .	203
4.301vrml.external.field.EventInSFRotation Class Reference . . . . .	204
4.301.1 Detailed Description . . . . .	204
4.302vrml.external.field.EventInSFString Class Reference . . . . .	204
4.302.1 Detailed Description . . . . .	204
4.303vrml.external.field.EventInSFTime Class Reference . . . . .	205
4.303.1 Detailed Description . . . . .	205
4.304vrml.external.field.EventInSFVec2f Class Reference . . . . .	205
4.304.1 Detailed Description . . . . .	205
4.305vrml.external.field.EventInSFVec3f Class Reference . . . . .	206
4.305.1 Detailed Description . . . . .	206
4.306vrml.external.field.EventOut Class Reference . . . . .	206
4.306.1 Detailed Description . . . . .	207
4.307vrml.external.field.EventOutMFColor Class Reference . . . . .	208
4.307.1 Detailed Description . . . . .	208
4.308vrml.external.field.EventOutMFFloat Class Reference . . . . .	208
4.308.1 Detailed Description . . . . .	209
4.309vrml.external.field.EventOutMField Class Reference . . . . .	209
4.309.1 Detailed Description . . . . .	209
4.310vrml.external.field.EventOutMFInt32 Class Reference . . . . .	210
4.310.1 Detailed Description . . . . .	210
4.311vrml.external.field.EventOutMFNode Class Reference . . . . .	210
4.311.1 Detailed Description . . . . .	211
4.312vrml.external.field.EventOutMFRotation Class Reference . . . . .	211



4.312.1 Detailed Description . . . . .	211
4.313vrml.external.field.EventOutMFString Class Reference . . . . .	211
4.313.1 Detailed Description . . . . .	212
4.314vrml.external.field.EventOutMFVec2f Class Reference . . . . .	212
4.314.1 Detailed Description . . . . .	212
4.315vrml.external.field.EventOutMFVec3f Class Reference . . . . .	213
4.315.1 Detailed Description . . . . .	213
4.316vrml.external.field.EventOutObserver Interface Reference . . . . .	213
4.316.1 Detailed Description . . . . .	213
4.317vrml.external.field.EventOutSFBool Class Reference . . . . .	214
4.317.1 Detailed Description . . . . .	214
4.318vrml.external.field.EventOutSFColor Class Reference . . . . .	214
4.318.1 Detailed Description . . . . .	214
4.319vrml.external.field.EventOutSFFloat Class Reference . . . . .	215
4.319.1 Detailed Description . . . . .	215
4.320vrml.external.field.EventOutSFImage Class Reference . . . . .	215
4.320.1 Detailed Description . . . . .	216
4.321vrml.external.field.EventOutSFInt32 Class Reference . . . . .	216
4.321.1 Detailed Description . . . . .	216
4.322vrml.external.field.EventOutSFNode Class Reference . . . . .	216
4.322.1 Detailed Description . . . . .	217
4.323vrml.external.field.EventOutSFRotation Class Reference . . . . .	217
4.323.1 Detailed Description . . . . .	217
4.324vrml.external.field.EventOutSFString Class Reference . . . . .	217
4.324.1 Detailed Description . . . . .	218
4.325vrml.external.field.EventOutSFTime Class Reference . . . . .	218
4.325.1 Detailed Description . . . . .	218
4.326vrml.external.field.EventOutSFVec2f Class Reference . . . . .	218
4.326.1 Detailed Description . . . . .	219
4.327vrml.external.field.EventOutSFVec3f Class Reference . . . . .	219

4.327.1 Detailed Description . . . . .	219
4.328org.web3d.x3d.sai.ExternalBrowser Interface Reference . . . . .	219
4.328.1 Detailed Description . . . . .	220
4.329extrusion Struct Reference . . . . .	220
4.329.1 Detailed Description . . . . .	220
4.330FaceCount Struct Reference . . . . .	220
4.330.1 Detailed Description . . . . .	220
4.331vrml.Field Class Reference . . . . .	221
4.331.1 Detailed Description . . . . .	221
4.332FieldDecl Struct Reference . . . . .	222
4.332.1 Detailed Description . . . . .	222
4.333vrml.external.field.FieldTypes Class Reference . . . . .	222
4.333.1 Detailed Description . . . . .	222
4.334file_in_zip64_read_info_s Struct Reference . . . . .	223
4.334.1 Detailed Description . . . . .	223
4.335FirstStruct Struct Reference . . . . .	223
4.335.1 Detailed Description . . . . .	223
4.336Flist Class Reference . . . . .	224
4.336.1 Detailed Description . . . . .	224
4.337FlistSorter Class Reference . . . . .	224
4.337.1 Detailed Description . . . . .	225
4.338flychord Struct Reference . . . . .	225
4.338.1 Detailed Description . . . . .	225
4.339fmtChnk Struct Reference . . . . .	225
4.339.1 Detailed Description . . . . .	226
4.340freewrl_params Struct Reference . . . . .	226
4.340.1 Detailed Description . . . . .	226
4.341sai.FreeWRLBrowser Class Reference . . . . .	226
4.341.1 Detailed Description . . . . .	228
4.342sai.FreeWRLBrowserInfo Class Reference . . . . .	228

4.342.1 Detailed Description . . . . .	228
4.343sai.FreeWRLComponent Class Reference . . . . .	229
4.343.1 Detailed Description . . . . .	229
4.344sai.FreeWRLField Class Reference . . . . .	229
4.344.1 Detailed Description . . . . .	231
4.345sai.FreeWRLFieldDefinition Class Reference . . . . .	231
4.345.1 Detailed Description . . . . .	231
4.346sai.FreeWRLFieldTypes Class Reference . . . . .	232
4.346.1 Detailed Description . . . . .	232
4.347sai.FreeWRLMField Class Reference . . . . .	232
4.347.1 Detailed Description . . . . .	233
4.348sai.FreeWRLNode Class Reference . . . . .	234
4.348.1 Detailed Description . . . . .	234
4.349sai.FreeWRLNodeTypes Class Reference . . . . .	234
4.349.1 Detailed Description . . . . .	235
4.350sai.FreeWRLRendererInfo Class Reference . . . . .	235
4.350.1 Detailed Description . . . . .	235
4.351sai.FreeWRLScene Class Reference . . . . .	236
4.351.1 Detailed Description . . . . .	237
4.352ftype Struct Reference . . . . .	237
4.352.1 Detailed Description . . . . .	237
4.353fw_MaterialParameters Struct Reference . . . . .	238
4.353.1 Detailed Description . . . . .	238
4.354FWBITMAPFILEHEADER Struct Reference . . . . .	238
4.354.1 Detailed Description . . . . .	238
4.355FWBITMAPINFO Struct Reference . . . . .	238
4.355.1 Detailed Description . . . . .	239
4.356FWBITMAPINFOHEADER Struct Reference . . . . .	239
4.356.1 Detailed Description . . . . .	239
4.357sai.FWComponentInfo Class Reference . . . . .	239

4.357.1 Detailed Description . . . . .	240
4.358vrml.FWCreateField Class Reference . . . . .	240
4.358.1 Detailed Description . . . . .	240
4.359sai.FWExternProtoDeclaration Class Reference . . . . .	240
4.359.1 Detailed Description . . . . .	241
4.360FWFunctionSpec Struct Reference . . . . .	241
4.360.1 Detailed Description . . . . .	241
4.361vrml.FWHelper Class Reference . . . . .	241
4.361.1 Detailed Description . . . . .	241
4.362vrml.FWJavaScript Class Reference . . . . .	242
4.362.1 Detailed Description . . . . .	242
4.363vrml.FWJavaScriptBinding Class Reference . . . . .	242
4.363.1 Detailed Description . . . . .	242
4.364vrml.FWJavaScriptClassLoader Class Reference . . . . .	243
4.364.1 Detailed Description . . . . .	243
4.364.2 Constructor & Destructor Documentation . . . . .	243
4.364.2.1 FWJavaScriptClassLoader() . . . . .	243
4.365sai.FWMFColor Class Reference . . . . .	244
4.365.1 Detailed Description . . . . .	244
4.366sai.FWMFColorRGBA Class Reference . . . . .	244
4.366.1 Detailed Description . . . . .	245
4.367sai.FWMFDouble Class Reference . . . . .	245
4.367.1 Detailed Description . . . . .	246
4.368sai.FWMFFloat Class Reference . . . . .	246
4.368.1 Detailed Description . . . . .	246
4.369sai.FWMFInt32 Class Reference . . . . .	247
4.369.1 Detailed Description . . . . .	247
4.370sai.FWMFNode Class Reference . . . . .	247
4.370.1 Detailed Description . . . . .	248
4.371sai.FWMFRotation Class Reference . . . . .	248

4.371.1 Detailed Description . . . . .	249
4.372sai.FWMFString Class Reference . . . . .	249
4.372.1 Detailed Description . . . . .	249
4.373sai.FWMFVec2d Class Reference . . . . .	250
4.373.1 Detailed Description . . . . .	250
4.374sai.FWMFVec2f Class Reference . . . . .	250
4.374.1 Detailed Description . . . . .	251
4.375sai.FWMFVec3d Class Reference . . . . .	251
4.375.1 Detailed Description . . . . .	252
4.376sai.FWMFVec3f Class Reference . . . . .	252
4.376.1 Detailed Description . . . . .	252
4.377sai.FWProfileInfo Class Reference . . . . .	253
4.377.1 Detailed Description . . . . .	253
4.378sai.FWProfInfo Class Reference . . . . .	253
4.378.1 Detailed Description . . . . .	253
4.379FWPropertySpec Struct Reference . . . . .	254
4.379.1 Detailed Description . . . . .	254
4.380sai.FWProtoDeclaration Class Reference . . . . .	254
4.380.1 Detailed Description . . . . .	255
4.381sai.FWProtoInstance Class Reference . . . . .	255
4.381.1 Detailed Description . . . . .	255
4.382FWRGBQUAD Struct Reference . . . . .	255
4.382.1 Detailed Description . . . . .	256
4.383sai.FWRoute Class Reference . . . . .	256
4.383.1 Detailed Description . . . . .	256
4.384sai.FWSFBool Class Reference . . . . .	256
4.384.1 Detailed Description . . . . .	257
4.385sai.FWSFColor Class Reference . . . . .	257
4.385.1 Detailed Description . . . . .	257
4.386sai.FWSFColorRGBA Class Reference . . . . .	258

4.386.1 Detailed Description . . . . .	258
4.387sai.FWSFDouble Class Reference . . . . .	258
4.387.1 Detailed Description . . . . .	259
4.388sai.FWSFFloat Class Reference . . . . .	259
4.388.1 Detailed Description . . . . .	259
4.389sai.FWSFImage Class Reference . . . . .	259
4.389.1 Detailed Description . . . . .	260
4.390sai.FWSFInt32 Class Reference . . . . .	260
4.390.1 Detailed Description . . . . .	260
4.391sai.FWSFNode Class Reference . . . . .	261
4.391.1 Detailed Description . . . . .	261
4.392sai.FWSFRotation Class Reference . . . . .	261
4.392.1 Detailed Description . . . . .	262
4.393sai.FWSFString Class Reference . . . . .	262
4.393.1 Detailed Description . . . . .	262
4.394sai.FWSFTime Class Reference . . . . .	262
4.394.1 Detailed Description . . . . .	263
4.395sai.FWSFVec2d Class Reference . . . . .	263
4.395.1 Detailed Description . . . . .	263
4.396sai.FWSFVec2f Class Reference . . . . .	264
4.396.1 Detailed Description . . . . .	264
4.397sai.FWSFVec3d Class Reference . . . . .	264
4.397.1 Detailed Description . . . . .	265
4.398sai.FWSFVec3f Class Reference . . . . .	265
4.398.1 Detailed Description . . . . .	265
4.399FWSNDMSG Struct Reference . . . . .	265
4.399.1 Detailed Description . . . . .	266
4.400FWTYPE Struct Reference . . . . .	266
4.400.1 Detailed Description . . . . .	266
4.401FWVAL Struct Reference . . . . .	266

4.401.1 Detailed Description . . . . .	267
4.402FXYS Struct Reference . . . . .	267
4.402.1 Detailed Description . . . . .	267
4.403GLUface Struct Reference . . . . .	267
4.403.1 Detailed Description . . . . .	267
4.404GLUhalfEdge Struct Reference . . . . .	268
4.404.1 Detailed Description . . . . .	268
4.405GLUmesh Struct Reference . . . . .	268
4.405.1 Detailed Description . . . . .	268
4.406GLUnurbs Class Reference . . . . .	268
4.406.1 Detailed Description . . . . .	269
4.407GLUtesselator Struct Reference . . . . .	269
4.407.1 Detailed Description . . . . .	270
4.408GLUvertex Struct Reference . . . . .	270
4.408.1 Detailed Description . . . . .	271
4.409GLwDrawingAreaCallbackStruct Struct Reference . . . . .	271
4.409.1 Detailed Description . . . . .	271
4.410GLwDrawingAreaPart Struct Reference . . . . .	271
4.410.1 Detailed Description . . . . .	272
4.411GoP Struct Reference . . . . .	272
4.411.1 Detailed Description . . . . .	272
4.412gridBoundaryChain Class Reference . . . . .	272
4.412.1 Detailed Description . . . . .	273
4.413Gridline Struct Reference . . . . .	273
4.413.1 Detailed Description . . . . .	273
4.414GridTrimVertex Class Reference . . . . .	273
4.414.1 Detailed Description . . . . .	274
4.415GridVertex Struct Reference . . . . .	274
4.415.1 Detailed Description . . . . .	274
4.416gridWrap Class Reference . . . . .	274

4.416.1 Detailed Description . . . . .	275
4.417GUIElement Struct Reference . . . . .	275
4.417.1 Detailed Description . . . . .	275
4.418GUINamedType Struct Reference . . . . .	275
4.418.1 Detailed Description . . . . .	275
4.419GUIScreen Struct Reference . . . . .	275
4.419.1 Detailed Description . . . . .	276
4.420Hull Class Reference . . . . .	276
4.420.1 Detailed Description . . . . .	276
4.421vrml.external.IBrowser Interface Reference . . . . .	276
4.421.1 Detailed Description . . . . .	277
4.422iiglobal Struct Reference . . . . .	278
4.422.1 Detailed Description . . . . .	280
4.423IMEXPORT Struct Reference . . . . .	280
4.423.1 Detailed Description . . . . .	280
4.424org.web3d.x3d.sai.ImportedException Class Reference . . . . .	281
4.424.1 Detailed Description . . . . .	281
4.425initialRouteStruct Struct Reference . . . . .	281
4.425.1 Detailed Description . . . . .	281
4.426freeWRLSAI_cpp::insufficientCapabilitiesException Class Reference . . . . .	282
4.426.1 Detailed Description . . . . .	282
4.427org.web3d.x3d.sai.InsufficientCapabilitiesException Class Reference . . . . .	282
4.427.1 Detailed Description . . . . .	283
4.428intersection_info Struct Reference . . . . .	283
4.428.1 Detailed Description . . . . .	283
4.429intTableIndex Struct Reference . . . . .	283
4.429.1 Detailed Description . . . . .	283
4.430freeWRLSAI_cpp::invalidAccessTypeException Class Reference . . . . .	284
4.430.1 Detailed Description . . . . .	284
4.431freeWRLSAI_cpp::invalidBrowserException Class Reference . . . . .	284



4.431.1 Detailed Description . . . . .	285
4.432org.web3d.x3d.sai.InvalidBrowserException Class Reference . . . . .	285
4.432.1 Detailed Description . . . . .	285
4.433freeWRLSAI_cpp::invalidDocumentException Class Reference . . . . .	285
4.433.1 Detailed Description . . . . .	286
4.434org.web3d.x3d.sai.InvalidDocumentException Class Reference . . . . .	286
4.434.1 Detailed Description . . . . .	286
4.435vrml.InvalidEventInException Class Reference . . . . .	286
4.435.1 Detailed Description . . . . .	287
4.436vrml.external.exception.InvalidEventInException Class Reference . . . . .	287
4.436.1 Detailed Description . . . . .	287
4.436.2 Constructor & Destructor Documentation . . . . .	287
4.436.2.1 InvalidEventInException() . . . . .	287
4.437vrml.InvalidEventOutException Class Reference . . . . .	288
4.437.1 Detailed Description . . . . .	288
4.438vrml.external.exception.InvalidEventOutException Class Reference . . . . .	288
4.438.1 Detailed Description . . . . .	289
4.439freeWRLSAI_cpp::invalidExecutionContextException Class Reference . . . . .	289
4.439.1 Detailed Description . . . . .	289
4.440org.web3d.x3d.sai.InvalidExecutionContextException Class Reference . . . . .	289
4.440.1 Detailed Description . . . . .	290
4.441vrml.InvalidExposedFieldException Class Reference . . . . .	290
4.441.1 Detailed Description . . . . .	290
4.442vrml.InvalidFieldChangeException Class Reference . . . . .	290
4.442.1 Detailed Description . . . . .	291
4.443org.web3d.x3d.sai.InvalidFieldException Class Reference . . . . .	291
4.443.1 Detailed Description . . . . .	291
4.444freeWRLSAI_cpp::invalidFieldException Class Reference . . . . .	291
4.444.1 Detailed Description . . . . .	292
4.445vrml.InvalidFieldException Class Reference . . . . .	292

4.445.1 Detailed Description . . . . .	292
4.446org.web3d.x3d.sai.InvalidFieldValueException Class Reference . . . . .	292
4.446.1 Detailed Description . . . . .	293
4.447freeWRLSAI_cpp::invalidImportException Class Reference . . . . .	293
4.447.1 Detailed Description . . . . .	293
4.448org.web3d.x3d.sai.InvalidNameException Class Reference . . . . .	293
4.448.1 Detailed Description . . . . .	294
4.449org.web3d.x3d.sai.InvalidNodeException Class Reference . . . . .	294
4.449.1 Detailed Description . . . . .	294
4.450freeWRLSAI_cpp::invalidNodeException Class Reference . . . . .	294
4.450.1 Detailed Description . . . . .	295
4.451vrml.external.exception.InvalidNodeException Class Reference . . . . .	295
4.451.1 Detailed Description . . . . .	295
4.451.2 Constructor & Destructor Documentation . . . . .	295
4.451.2.1 InvalidNodeException() . . . . .	295
4.452freeWRLSAI_cpp::invalidOperationTimingException Class Reference . . . . .	296
4.452.1 Detailed Description . . . . .	296
4.453org.web3d.x3d.sai.InvalidOperationTimingException Class Reference . . . . .	296
4.453.1 Detailed Description . . . . .	297
4.454org.web3d.x3d.sai.InvalidProtoException Class Reference . . . . .	297
4.454.1 Detailed Description . . . . .	297
4.455freeWRLSAI_cpp::InvalidReadableFieldException Class Reference . . . . .	297
4.455.1 Detailed Description . . . . .	298
4.456vrml.InvalidRouteException Class Reference . . . . .	298
4.456.1 Detailed Description . . . . .	298
4.457org.web3d.x3d.sai.InvalidRouteException Class Reference . . . . .	298
4.457.1 Detailed Description . . . . .	299
4.458freeWRLSAI_cpp::invalidUrlException Class Reference . . . . .	299
4.458.1 Detailed Description . . . . .	299
4.459org.web3d.x3d.sai.InvalidURLErrorException Class Reference . . . . .	299

4.459.1 Detailed Description . . . . .	300
4.460vrml.external.exception.InvalidVrmlException Class Reference . . . . .	300
4.460.1 Detailed Description . . . . .	300
4.460.2 Constructor & Destructor Documentation . . . . .	300
4.460.2.1 InvalidVrmlException() . . . . .	300
4.461vrml.InvalidVRMLSyntaxException Class Reference . . . . .	301
4.461.1 Detailed Description . . . . .	301
4.462freeWRLSAI_cpp::InvalidWritableFieldException Class Reference . . . . .	301
4.462.1 Detailed Description . . . . .	302
4.463freeWRLSAI_cpp::invalidX3DException Class Reference . . . . .	302
4.463.1 Detailed Description . . . . .	302
4.464org.web3d.x3d.sai.InvalidX3DException Class Reference . . . . .	303
4.464.1 Detailed Description . . . . .	303
4.465vrml.InvalidX3DSyntaxException Class Reference . . . . .	303
4.465.1 Detailed Description . . . . .	303
4.466ivec2 Struct Reference . . . . .	304
4.466.1 Detailed Description . . . . .	304
4.467ivec4 Struct Reference . . . . .	304
4.467.1 Detailed Description . . . . .	304
4.468Jarcloc Class Reference . . . . .	304
4.468.1 Detailed Description . . . . .	305
4.469JMATRIX Struct Reference . . . . .	305
4.469.1 Detailed Description . . . . .	305
4.470JSLoadPropElement Struct Reference . . . . .	305
4.470.1 Detailed Description . . . . .	305
4.471JSON_config Struct Reference . . . . .	305
4.471.1 Detailed Description . . . . .	306
4.471.2 Field Documentation . . . . .	306
4.471.2.1 callback . . . . .	306
4.471.2.2 callback_ctx . . . . .	306

4.471.2.3 depth . . . . .	307
4.471.2.4 free . . . . .	307
4.471.2.5 malloc . . . . .	307
4.472JSON_parser_struct Struct Reference . . . . .	308
4.472.1 Detailed Description . . . . .	308
4.473JSON_value_struct Struct Reference . . . . .	308
4.473.1 Detailed Description . . . . .	309
4.474key Struct Reference . . . . .	309
4.474.1 Detailed Description . . . . .	309
4.475keyHit Struct Reference . . . . .	309
4.475.1 Detailed Description . . . . .	309
4.476keyval Struct Reference . . . . .	309
4.476.1 Detailed Description . . . . .	310
4.477Knotspec Struct Reference . . . . .	310
4.477.1 Detailed Description . . . . .	311
4.478Knotvector Struct Reference . . . . .	311
4.478.1 Detailed Description . . . . .	311
4.479layout_scale_item Struct Reference . . . . .	311
4.479.1 Detailed Description . . . . .	311
4.480layoutmode Struct Reference . . . . .	312
4.480.1 Detailed Description . . . . .	312
4.481linkedlist_data_s Struct Reference . . . . .	312
4.481.1 Detailed Description . . . . .	312
4.482linkedlist_datablock_internal_s Struct Reference . . . . .	312
4.482.1 Detailed Description . . . . .	312
4.483macroblock Struct Reference . . . . .	313
4.483.1 Detailed Description . . . . .	313
4.484Mapdesc Class Reference . . . . .	313
4.484.1 Detailed Description . . . . .	315
4.485Maplist Class Reference . . . . .	315

4.485.1 Detailed Description . . . . .	315
4.486matpropstruct Struct Reference . . . . .	315
4.486.1 Detailed Description . . . . .	316
4.487org.web3d.x3d.sai.Matrix Interface Reference . . . . .	316
4.487.1 Detailed Description . . . . .	316
4.488org.web3d.x3d.sai.Matrix3 Class Reference . . . . .	316
4.488.1 Detailed Description . . . . .	317
4.489org.web3d.x3d.sai.Matrix4 Class Reference . . . . .	317
4.489.1 Detailed Description . . . . .	318
4.490mb_addr_inc_entry Struct Reference . . . . .	318
4.490.1 Detailed Description . . . . .	318
4.491mb_type_entry Struct Reference . . . . .	318
4.491.1 Detailed Description . . . . .	318
4.492Mesher Class Reference . . . . .	319
4.492.1 Detailed Description . . . . .	319
4.493org.web3d.x3d.sai.MFBool Interface Reference . . . . .	319
4.493.1 Detailed Description . . . . .	320
4.494vrml.field.MFColor Class Reference . . . . .	320
4.494.1 Detailed Description . . . . .	321
4.495org.web3d.x3d.sai.MFColor Interface Reference . . . . .	321
4.495.1 Detailed Description . . . . .	321
4.496org.web3d.x3d.sai.MFColorRGBA Interface Reference . . . . .	322
4.496.1 Detailed Description . . . . .	322
4.497org.web3d.x3d.sai.MFDouble Interface Reference . . . . .	322
4.497.1 Detailed Description . . . . .	323
4.498org.web3d.x3d.sai.MFFloat Interface Reference . . . . .	323
4.498.1 Detailed Description . . . . .	323
4.499vrml.field.MFFloat Class Reference . . . . .	324
4.499.1 Detailed Description . . . . .	324
4.500org.web3d.x3d.sai.MField Interface Reference . . . . .	325

4.500.1 Detailed Description . . . . .	325
4.501vrml.MField Class Reference . . . . .	326
4.501.1 Detailed Description . . . . .	327
4.502org.web3d.x3d.sai.MFImage Interface Reference . . . . .	327
4.502.1 Detailed Description . . . . .	327
4.503org.web3d.x3d.sai.MFInt32 Interface Reference . . . . .	328
4.503.1 Detailed Description . . . . .	328
4.504vrml.field.MFInt32 Class Reference . . . . .	328
4.504.1 Detailed Description . . . . .	329
4.505org.web3d.x3d.sai.MFNode Interface Reference . . . . .	329
4.505.1 Detailed Description . . . . .	330
4.506vrml.field.MFNode Class Reference . . . . .	330
4.506.1 Detailed Description . . . . .	331
4.507org.web3d.x3d.sai.MFRotation Interface Reference . . . . .	331
4.507.1 Detailed Description . . . . .	331
4.508vrml.field.MFRotation Class Reference . . . . .	332
4.508.1 Detailed Description . . . . .	332
4.509org.web3d.x3d.sai.MFString Interface Reference . . . . .	333
4.509.1 Detailed Description . . . . .	333
4.510vrml.field.MFString Class Reference . . . . .	333
4.510.1 Detailed Description . . . . .	334
4.511vrml.field.MFTime Class Reference . . . . .	334
4.511.1 Detailed Description . . . . .	335
4.512org.web3d.x3d.sai.MFTime Interface Reference . . . . .	335
4.512.1 Detailed Description . . . . .	336
4.513org.web3d.x3d.sai.MFVec2d Interface Reference . . . . .	336
4.513.1 Detailed Description . . . . .	337
4.514vrml.field.MFVec2f Class Reference . . . . .	337
4.514.1 Detailed Description . . . . .	338
4.515org.web3d.x3d.sai.MFVec2f Interface Reference . . . . .	338

4.515.1 Detailed Description . . . . .	338
4.516org.web3d.x3d.sai.MFVec3d Interface Reference . . . . .	339
4.516.1 Detailed Description . . . . .	339
4.517vrml.field.MFVec3f Class Reference . . . . .	339
4.517.1 Detailed Description . . . . .	340
4.518org.web3d.x3d.sai.MFVec3f Interface Reference . . . . .	340
4.518.1 Detailed Description . . . . .	341
4.519mode_name Struct Reference . . . . .	341
4.519.1 Detailed Description . . . . .	341
4.520monoChain Class Reference . . . . .	342
4.520.1 Detailed Description . . . . .	342
4.521Monotonizer Class Reference . . . . .	342
4.521.1 Detailed Description . . . . .	343
4.522motion_vectors_entry Struct Reference . . . . .	343
4.522.1 Detailed Description . . . . .	343
4.523Multi_Any Struct Reference . . . . .	343
4.523.1 Detailed Description . . . . .	343
4.524Multi_Bool Struct Reference . . . . .	343
4.524.1 Detailed Description . . . . .	344
4.525Multi_Color Struct Reference . . . . .	344
4.525.1 Detailed Description . . . . .	344
4.526Multi_ColorRGBA Struct Reference . . . . .	344
4.526.1 Detailed Description . . . . .	344
4.527Multi_Double Struct Reference . . . . .	345
4.527.1 Detailed Description . . . . .	345
4.528Multi_Float Struct Reference . . . . .	345
4.528.1 Detailed Description . . . . .	345
4.529Multi_Int32 Struct Reference . . . . .	345
4.529.1 Detailed Description . . . . .	346
4.530Multi_Matrix3d Struct Reference . . . . .	346

4.530.1 Detailed Description . . . . .	346
4.531Multi_Matrix3f Struct Reference . . . . .	346
4.531.1 Detailed Description . . . . .	346
4.532Multi_Matrix4d Struct Reference . . . . .	347
4.532.1 Detailed Description . . . . .	347
4.533Multi_Matrix4f Struct Reference . . . . .	347
4.533.1 Detailed Description . . . . .	347
4.534Multi_Node Struct Reference . . . . .	347
4.534.1 Detailed Description . . . . .	348
4.535Multi_Rotation Struct Reference . . . . .	348
4.535.1 Detailed Description . . . . .	348
4.536Multi_String Struct Reference . . . . .	348
4.536.1 Detailed Description . . . . .	348
4.537Multi_Time Struct Reference . . . . .	349
4.537.1 Detailed Description . . . . .	349
4.538Multi_Vec2d Struct Reference . . . . .	349
4.538.1 Detailed Description . . . . .	349
4.539Multi_Vec2f Struct Reference . . . . .	349
4.539.1 Detailed Description . . . . .	350
4.540Multi_Vec3d Struct Reference . . . . .	350
4.540.1 Detailed Description . . . . .	350
4.541Multi_Vec3f Struct Reference . . . . .	350
4.541.1 Detailed Description . . . . .	350
4.542Multi_Vec4d Struct Reference . . . . .	351
4.542.1 Detailed Description . . . . .	351
4.543Multi_Vec4f Struct Reference . . . . .	351
4.543.1 Detailed Description . . . . .	351
4.544multiTexParams Struct Reference . . . . .	351
4.544.1 Detailed Description . . . . .	352
4.545myArgs Struct Reference . . . . .	352



4.545.1 Detailed Description . . . . .	352
4.546MyVertex Struct Reference . . . . .	352
4.546.1 Detailed Description . . . . .	352
4.547name_num Struct Reference . . . . .	353
4.547.1 Detailed Description . . . . .	353
4.548navmode Struct Reference . . . . .	353
4.548.1 Detailed Description . . . . .	353
4.549vrml.node.Node Class Reference . . . . .	353
4.549.1 Detailed Description . . . . .	354
4.550vrml.external.Node Class Reference . . . . .	354
4.550.1 Detailed Description . . . . .	354
4.551nodedistance Struct Reference . . . . .	355
4.551.1 Detailed Description . . . . .	355
4.552freeWRLSAI_cpp::nodeInUseException Class Reference . . . . .	355
4.552.1 Detailed Description . . . . .	355
4.553org.web3d.x3d.sai.NodeInUseException Class Reference . . . . .	356
4.553.1 Detailed Description . . . . .	356
4.554freeWRLSAI_cpp::nodeUnavailableException Class Reference . . . . .	356
4.554.1 Detailed Description . . . . .	356
4.555org.web3d.x3d.sai.NodeUnavailableException Class Reference . . . . .	357
4.555.1 Detailed Description . . . . .	357
4.556freeWRLSAI_cpp::noSuchBrowserException Class Reference . . . . .	357
4.556.1 Detailed Description . . . . .	357
4.557org.web3d.x3d.sai.NoSuchBrowserException Class Reference . . . . .	358
4.557.1 Detailed Description . . . . .	358
4.558freeWRLSAI_cpp::notSupportedException Class Reference . . . . .	358
4.558.1 Detailed Description . . . . .	358
4.559org.web3d.x3d.sai.NotSupportedException Class Reference . . . . .	359
4.559.1 Detailed Description . . . . .	359
4.560NPCClass Struct Reference . . . . .	359

4.560.1 Detailed Description . . . . .	359
4.561NPObj Struct Reference . . . . .	360
4.561.1 Detailed Description . . . . .	360
4.562nsByteRange Struct Reference . . . . .	360
4.562.1 Detailed Description . . . . .	360
4.563nsIAuthenticationInfo Interface Reference . . . . .	361
4.563.1 Detailed Description . . . . .	361
4.564nsICookieStorage Interface Reference . . . . .	361
4.564.1 Detailed Description . . . . .	361
4.564.2 Member Function Documentation . . . . .	362
4.564.2.1 getCookie() . . . . .	362
4.564.2.2 setCookie() . . . . .	362
4.565nsIFileUtilities Interface Reference . . . . .	362
4.565.1 Detailed Description . . . . .	363
4.565.2 Member Function Documentation . . . . .	363
4.565.2.1 getProgramPath() . . . . .	363
4.565.2.2 getTempDirPath() . . . . .	363
4.565.2.3 newTempFileName() . . . . .	364
4.566nsIHTTPHeaderListener Interface Reference . . . . .	364
4.566.1 Detailed Description . . . . .	365
4.566.2 Member Function Documentation . . . . .	365
4.566.2.1 newResponseHeader() . . . . .	365
4.566.2.2 statusLine() . . . . .	365
4.567nsIJVMAuthTools Interface Reference . . . . .	366
4.567.1 Detailed Description . . . . .	366
4.567.2 Member Function Documentation . . . . .	366
4.567.2.1 GetAuthenticationInfo() . . . . .	366
4.567.2.2 SetAuthenticationInfo() . . . . .	367
4.568nsIPlugin Interface Reference . . . . .	367
4.568.1 Detailed Description . . . . .	368

4.568.2 Member Function Documentation . . . . .	368
4.568.2.1 createPluginInstance() . . . . .	368
4.568.2.2 getMIMEDescription() . . . . .	368
4.568.2.3 getValue() . . . . .	369
4.568.2.4 initialize() . . . . .	369
4.568.2.5 shutdown() . . . . .	369
4.569nsIPluginDocument Interface Reference . . . . .	370
4.569.1 Detailed Description . . . . .	370
4.569.2 Field Documentation . . . . .	370
4.569.2.1 willHandleInstantiation . . . . .	371
4.570nsIPluginHost Interface Reference . . . . .	371
4.570.1 Detailed Description . . . . .	372
4.570.2 Member Function Documentation . . . . .	372
4.570.2.1 findProxyForURL() . . . . .	372
4.570.2.2 getPluginName() . . . . .	373
4.570.2.3 getPluginTagForInstance() . . . . .	373
4.570.2.4 GetURL() . . . . .	373
4.570.2.5 instantiateDummyJavaPlugin() . . . . .	374
4.570.2.6 instantiatePluginForChannel() . . . . .	374
4.570.2.7 parsePostBufferToFixHeaders() . . . . .	375
4.570.2.8 PostURL() . . . . .	375
4.570.2.9 reloadPlugins() . . . . .	376
4.571nsIPluginHostOld Interface Reference . . . . .	376
4.571.1 Detailed Description . . . . .	377
4.571.2 Member Function Documentation . . . . .	377
4.571.2.1 instantiatePluginForChannel() . . . . .	377
4.572nsIPluginInputStream Interface Reference . . . . .	378
4.572.1 Detailed Description . . . . .	378
4.573nsIPluginInstance Interface Reference . . . . .	378
4.573.1 Detailed Description . . . . .	379

4.573.2 Member Function Documentation . . . . .	380
4.573.2.1 getMimeType() . . . . .	380
4.573.2.2 getValue() . . . . .	380
4.573.2.3 handleEvent() . . . . .	380
4.573.2.4 initialize() . . . . .	381
4.573.2.5 newStreamFromPlugin() . . . . .	381
4.573.2.6 newStreamToPlugin() . . . . .	382
4.573.2.7 print() . . . . .	382
4.573.2.8 setWindow() . . . . .	383
4.573.2.9 showStatus() . . . . .	383
4.573.2.10 start() . . . . .	383
4.573.2.11 stop() . . . . .	384
4.573.3 Field Documentation . . . . .	384
4.573.3.1 JSContext . . . . .	384
4.574 nsIPluginInstanceInternal Class Reference . . . . .	384
4.574.1 Detailed Description . . . . .	385
4.575 nsIPluginInstanceOld Interface Reference . . . . .	385
4.575.1 Detailed Description . . . . .	386
4.575.2 Member Function Documentation . . . . .	386
4.575.2.1 destroy() . . . . .	387
4.575.2.2 getValue() . . . . .	387
4.575.2.3 handleEvent() . . . . .	387
4.575.2.4 initialize() . . . . .	388
4.575.2.5 newStream() . . . . .	388
4.575.2.6 print() . . . . .	389
4.575.2.7 setWindow() . . . . .	389
4.575.2.8 start() . . . . .	389
4.575.2.9 stop() . . . . .	390
4.575.3 Field Documentation . . . . .	390
4.575.3.1 peer . . . . .	390

4.576nsIPluginInstanceOwner Interface Reference . . . . .	390
4.576.1 Detailed Description . . . . .	391
4.576.2 Member Function Documentation . . . . .	391
4.576.2.1 createWidget() . . . . .	391
4.576.2.2 GetURL() . . . . .	392
4.576.2.3 getWindow() . . . . .	392
4.577nsIPluginInstancePeer Interface Reference . . . . .	392
4.577.1 Detailed Description . . . . .	393
4.577.2 Member Function Documentation . . . . .	393
4.577.2.1 getValue() . . . . .	393
4.577.2.2 newStream() . . . . .	394
4.577.2.3 setWindowSize() . . . . .	394
4.577.2.4 showStatus() . . . . .	395
4.577.3 Field Documentation . . . . .	395
4.577.3.1 MIMEType . . . . .	395
4.577.3.2 mode . . . . .	395
4.578nsIPluginInstancePeer2 Interface Reference . . . . .	396
4.578.1 Detailed Description . . . . .	396
4.578.2 Field Documentation . . . . .	397
4.578.2.1 JSContext . . . . .	397
4.578.2.2 JSThread . . . . .	397
4.578.2.3 JSWindow . . . . .	397
4.579nsIPluginInstancePeer2_1_9_1_BRANCH Interface Reference . . . . .	398
4.579.1 Detailed Description . . . . .	398
4.580nsIPluginManager Interface Reference . . . . .	399
4.580.1 Detailed Description . . . . .	399
4.580.2 Member Function Documentation . . . . .	399
4.580.2.1 GetURL() . . . . .	400
4.580.2.2 GetURLWithHeaders() . . . . .	400
4.580.2.3 GetValue() . . . . .	401

4.580.2.4 PostURL()	401
4.580.2.5 RegisterPlugin()	402
4.580.2.6 reloadPlugins()	403
4.580.2.7 UnregisterPlugin()	403
4.580.2.8 UserAgent()	403
4.581nsIPluginManager2 Interface Reference	404
4.581.1 Detailed Description	405
4.581.2 Member Function Documentation	405
4.581.2.1 allocateMenuID()	405
4.581.2.2 beginWaitCursor()	405
4.581.2.3 deallocateMenuID()	405
4.581.2.4 endWaitCursor()	406
4.581.2.5 findProxyForURL()	406
4.581.2.6 hasAllocatedMenuID()	406
4.581.2.7 notifyStatusChange()	407
4.581.2.8 registerWindow()	407
4.581.2.9 supportsURLProtocol()	408
4.581.2.10unregisterWindow()	408
4.582nsIPluginOld Interface Reference	409
4.582.1 Detailed Description	409
4.582.2 Member Function Documentation	409
4.582.2.1 createPluginInstance()	410
4.582.2.2 getMIMEDescription()	410
4.582.2.3 getValue()	410
4.582.2.4 initialize()	411
4.582.2.5 shutdown()	411
4.583nsIPluginStreamInfo Interface Reference	411
4.583.1 Detailed Description	412
4.584nsIPluginStreamListener Interface Reference	412
4.584.1 Detailed Description	413

4.584.2 Member Function Documentation . . . . .	413
4.584.2.1 onDataAvailable() . . . . .	413
4.584.2.2 onFileAvailable() . . . . .	414
4.584.2.3 onStartBinding() . . . . .	414
4.584.2.4 onStopBinding() . . . . .	414
4.584.3 Field Documentation . . . . .	415
4.584.3.1 streamType . . . . .	415
4.585nsIPluginTag Interface Reference . . . . .	415
4.585.1 Detailed Description . . . . .	416
4.586nsIPluginTagInfo Interface Reference . . . . .	416
4.586.1 Detailed Description . . . . .	417
4.586.2 Member Function Documentation . . . . .	417
4.586.2.1 getAttribute() . . . . .	417
4.586.2.2 getAttributes() . . . . .	418
4.586.2.3 getParameter() . . . . .	418
4.586.2.4 getParameters() . . . . .	418
4.586.3 Field Documentation . . . . .	418
4.586.3.1 DOMElement . . . . .	418
4.586.3.2 tagType . . . . .	419
4.587nsIPluginTagInfo2 Interface Reference . . . . .	419
4.587.1 Detailed Description . . . . .	420
4.587.2 Member Function Documentation . . . . .	420
4.587.2.1 getParameter() . . . . .	421
4.587.2.2 getParameters() . . . . .	422
4.587.3 Field Documentation . . . . .	422
4.587.3.1 DOMElement . . . . .	422
4.587.3.2 tagType . . . . .	422
4.588nsIPluginTagInfoOld Interface Reference . . . . .	423
4.588.1 Detailed Description . . . . .	423
4.588.2 Member Function Documentation . . . . .	423

4.588.2.1 <code>getAttribute()</code> . . . . .	423
4.588.2.2 <code>getAttributes()</code> . . . . .	424
4.589nsIScriptablePlugin Interface Reference . . . . .	424
4.589.1 Detailed Description . . . . .	425
4.589.2 Field Documentation . . . . .	425
4.589.2.1 <code>scriptableInterface</code> . . . . .	425
4.589.2.2 <code>scriptablePeer</code> . . . . .	425
4.590nsIWindowlessPluginInstancePeer Interface Reference . . . . .	425
4.590.1 Detailed Description . . . . .	426
4.591nsPIPluginInstancePeer Interface Reference . . . . .	426
4.591.1 Detailed Description . . . . .	426
4.592nsPluginEmbedPrint Struct Reference . . . . .	426
4.592.1 Detailed Description . . . . .	427
4.593nsPluginEvent Struct Reference . . . . .	427
4.593.1 Detailed Description . . . . .	427
4.594nsPluginFullPrint Struct Reference . . . . .	427
4.594.1 Detailed Description . . . . .	427
4.595nsPluginLogging Class Reference . . . . .	428
4.595.1 Detailed Description . . . . .	428
4.596nsPluginNativeWindow Class Reference . . . . .	428
4.596.1 Detailed Description . . . . .	429
4.596.2 Member Function Documentation . . . . .	429
4.596.2.1 <code>GetPluginInstance()</code> [1/2] . . . . .	429
4.596.2.2 <code>GetPluginInstance()</code> [2/2] . . . . .	429
4.597nsPluginPrint Struct Reference . . . . .	430
4.597.1 Detailed Description . . . . .	430
4.598nsPluginRect Struct Reference . . . . .	430
4.598.1 Detailed Description . . . . .	430
4.599nsPluginWindow Struct Reference . . . . .	431
4.599.1 Detailed Description . . . . .	431



4.600NurbsTessellator Class Reference . . . . .	431
4.600.1 Detailed Description . . . . .	432
4.601O_curve Struct Reference . . . . .	433
4.601.1 Detailed Description . . . . .	433
4.602O_nurbscurve Struct Reference . . . . .	433
4.602.1 Detailed Description . . . . .	434
4.603O_nurbssurface Struct Reference . . . . .	434
4.603.1 Detailed Description . . . . .	434
4.604O_pwlcurve Class Reference . . . . .	435
4.604.1 Detailed Description . . . . .	435
4.605O_surface Struct Reference . . . . .	435
4.605.1 Detailed Description . . . . .	436
4.606O_trim Struct Reference . . . . .	436
4.606.1 Detailed Description . . . . .	436
4.607OpenGLCurveEvaluator Class Reference . . . . .	436
4.607.1 Detailed Description . . . . .	438
4.608OpenGLSurfaceEvaluator Class Reference . . . . .	438
4.608.1 Detailed Description . . . . .	439
4.609openned_file Struct Reference . . . . .	439
4.609.1 Detailed Description . . . . .	439
4.610orient_XYZA Struct Reference . . . . .	440
4.610.1 Detailed Description . . . . .	440
4.611particle Struct Reference . . . . .	440
4.611.1 Detailed Description . . . . .	440
4.612Patch Class Reference . . . . .	440
4.612.1 Detailed Description . . . . .	441
4.613Patchlist Class Reference . . . . .	441
4.613.1 Detailed Description . . . . .	441
4.614Patchspec Struct Reference . . . . .	442
4.614.1 Detailed Description . . . . .	442

4.615pBindable Struct Reference . . . . .	442
4.615.1 Detailed Description . . . . .	442
4.616pcollision Struct Reference . . . . .	443
4.616.1 Detailed Description . . . . .	443
4.617pcommon Struct Reference . . . . .	443
4.617.1 Detailed Description . . . . .	444
4.618pComponent_CubeMapTexturing Struct Reference . . . . .	444
4.618.1 Detailed Description . . . . .	444
4.619pComponent_EnvironSensor Struct Reference . . . . .	444
4.619.1 Detailed Description . . . . .	444
4.620pComponent_Followers Struct Reference . . . . .	445
4.620.1 Detailed Description . . . . .	445
4.621pComponent_Geometry3D Struct Reference . . . . .	445
4.621.1 Detailed Description . . . . .	445
4.622pComponent_Geospatial Struct Reference . . . . .	445
4.622.1 Detailed Description . . . . .	445
4.623pComponent_HAnim Struct Reference . . . . .	446
4.623.1 Detailed Description . . . . .	446
4.624pComponent_KeyDevice Struct Reference . . . . .	446
4.624.1 Detailed Description . . . . .	446
4.625pComponent_Layering Struct Reference . . . . .	446
4.625.1 Detailed Description . . . . .	446
4.626pComponent_Layout Struct Reference . . . . .	447
4.626.1 Detailed Description . . . . .	447
4.627pComponent_NURBS Struct Reference . . . . .	447
4.627.1 Detailed Description . . . . .	447
4.628pComponent_ParticleSystems Struct Reference . . . . .	447
4.628.1 Detailed Description . . . . .	447
4.629pComponent_Picking Struct Reference . . . . .	448
4.629.1 Detailed Description . . . . .	448

4.630pComponent_ProgrammableShaders Struct Reference . . . . .	448
4.630.1 Detailed Description . . . . .	448
4.631pComponent_Rendering Struct Reference . . . . .	448
4.631.1 Detailed Description . . . . .	448
4.632pComponent_RigidBodyPhysics Struct Reference . . . . .	449
4.632.1 Detailed Description . . . . .	449
4.633pComponent_Shape Struct Reference . . . . .	449
4.633.1 Detailed Description . . . . .	449
4.634pComponent_Sound Struct Reference . . . . .	449
4.634.1 Detailed Description . . . . .	450
4.635pComponent_Text Struct Reference . . . . .	450
4.635.1 Detailed Description . . . . .	451
4.636pComponent_VolumeRendering Struct Reference . . . . .	451
4.636.1 Detailed Description . . . . .	451
4.637pConsoleMessage Struct Reference . . . . .	451
4.637.1 Detailed Description . . . . .	452
4.638pCParse Struct Reference . . . . .	452
4.638.1 Detailed Description . . . . .	452
4.639pCParseParser Struct Reference . . . . .	452
4.639.1 Detailed Description . . . . .	452
4.640pCRoutes Struct Reference . . . . .	453
4.640.1 Detailed Description . . . . .	453
4.641pCScripts Struct Reference . . . . .	453
4.641.1 Detailed Description . . . . .	453
4.642pCursorDraw Struct Reference . . . . .	454
4.642.1 Detailed Description . . . . .	454
4.643pdisplay Struct Reference . . . . .	454
4.643.1 Detailed Description . . . . .	454
4.644pEAI_C_CommonFunctions Struct Reference . . . . .	454
4.644.1 Detailed Description . . . . .	454

4.645pEAICore Struct Reference . . . . .	455
4.645.1 Detailed Description . . . . .	455
4.646pEAIEventsIn Struct Reference . . . . .	455
4.646.1 Detailed Description . . . . .	455
4.647pEAIHelpers Struct Reference . . . . .	455
4.647.1 Detailed Description . . . . .	455
4.648pedal_state Struct Reference . . . . .	456
4.648.1 Detailed Description . . . . .	456
4.649pFrustum Struct Reference . . . . .	456
4.649.1 Detailed Description . . . . .	456
4.650pict Struct Reference . . . . .	456
4.650.1 Detailed Description . . . . .	457
4.651pict_image Struct Reference . . . . .	457
4.651.1 Detailed Description . . . . .	457
4.652pJScript Struct Reference . . . . .	457
4.652.1 Detailed Description . . . . .	457
4.653pjsUtils Struct Reference . . . . .	458
4.653.1 Detailed Description . . . . .	458
4.654pjsVRMLBrowser Struct Reference . . . . .	458
4.654.1 Detailed Description . . . . .	458
4.655pjsVRMLClasses Struct Reference . . . . .	458
4.655.1 Detailed Description . . . . .	458
4.656pLoadTextures Struct Reference . . . . .	459
4.656.1 Detailed Description . . . . .	459
4.657pMainloop Struct Reference . . . . .	459
4.657.1 Detailed Description . . . . .	460
4.658Point Struct Reference . . . . .	460
4.658.1 Detailed Description . . . . .	460
4.659point_XYZ Struct Reference . . . . .	461
4.659.1 Detailed Description . . . . .	461

4.660point_XYZ3 Struct Reference . . . . .	461
4.660.1 Detailed Description . . . . .	461
4.661pointer2pointer Struct Reference . . . . .	461
4.661.1 Detailed Description . . . . .	461
4.662polygon Struct Reference . . . . .	462
4.662.1 Detailed Description . . . . .	462
4.663polyrep_combiner_data Struct Reference . . . . .	462
4.663.1 Detailed Description . . . . .	462
4.664Pool Class Reference . . . . .	462
4.664.1 Detailed Description . . . . .	463
4.665PooledObj Class Reference . . . . .	463
4.665.1 Detailed Description . . . . .	464
4.666pOpenGL_Utils Struct Reference . . . . .	464
4.666.1 Detailed Description . . . . .	464
4.667pPluginSocket Struct Reference . . . . .	465
4.667.1 Detailed Description . . . . .	465
4.668ppuginUtils Struct Reference . . . . .	465
4.668.1 Detailed Description . . . . .	465
4.669pProdCon Struct Reference . . . . .	465
4.669.1 Detailed Description . . . . .	466
4.670PQhandleElem Struct Reference . . . . .	466
4.670.1 Detailed Description . . . . .	466
4.671PQnode Struct Reference . . . . .	466
4.671.1 Detailed Description . . . . .	466
4.672pRasterFont Struct Reference . . . . .	466
4.672.1 Detailed Description . . . . .	467
4.673pRenderFuncs Struct Reference . . . . .	467
4.673.1 Detailed Description . . . . .	468
4.674pRenderTextures Struct Reference . . . . .	468
4.674.1 Detailed Description . . . . .	468

4.675presources Struct Reference . . . . .	468
4.675.1 Detailed Description . . . . .	468
4.676primStream Class Reference . . . . .	469
4.676.1 Detailed Description . . . . .	469
4.677PriorityQ Struct Reference . . . . .	469
4.677.1 Detailed Description . . . . .	470
4.678profile_entry Struct Reference . . . . .	470
4.678.1 Detailed Description . . . . .	470
4.679org.web3d.x3d.sai.ProfileInfo Interface Reference . . . . .	470
4.679.1 Detailed Description . . . . .	471
4.680proftablestruct Struct Reference . . . . .	471
4.680.1 Detailed Description . . . . .	471
4.681Property Struct Reference . . . . .	471
4.681.1 Detailed Description . . . . .	472
4.682ProtoDefinition Struct Reference . . . . .	472
4.682.1 Detailed Description . . . . .	472
4.683ProtoFieldDecl Struct Reference . . . . .	472
4.683.1 Detailed Description . . . . .	472
4.684pSensInterps Struct Reference . . . . .	473
4.684.1 Detailed Description . . . . .	473
4.685pSnapshot Struct Reference . . . . .	473
4.685.1 Detailed Description . . . . .	473
4.686Pspec Struct Reference . . . . .	473
4.686.1 Detailed Description . . . . .	474
4.687PSStruct Struct Reference . . . . .	474
4.687.1 Detailed Description . . . . .	474
4.688pstatusbar Struct Reference . . . . .	474
4.688.1 Detailed Description . . . . .	475
4.689pStreamPoly Struct Reference . . . . .	475
4.689.1 Detailed Description . . . . .	475

4.690pTess Struct Reference . . . . .	475
4.690.1 Detailed Description . . . . .	475
4.691pTextures Struct Reference . . . . .	475
4.691.1 Detailed Description . . . . .	476
4.692pViewer Struct Reference . . . . .	476
4.692.1 Detailed Description . . . . .	476
4.693PwlArc Class Reference . . . . .	476
4.693.1 Detailed Description . . . . .	477
4.694pX3DParser Struct Reference . . . . .	477
4.694.1 Detailed Description . . . . .	477
4.695quaternion Struct Reference . . . . .	478
4.695.1 Detailed Description . . . . .	478
4.696Quilt Class Reference . . . . .	478
4.696.1 Detailed Description . . . . .	479
4.697QuiltSpec Struct Reference . . . . .	479
4.697.1 Detailed Description . . . . .	479
4.698rb1 Struct Reference . . . . .	479
4.698.1 Detailed Description . . . . .	480
4.699rectBlock Class Reference . . . . .	480
4.699.1 Detailed Description . . . . .	480
4.700rectBlockArray Class Reference . . . . .	480
4.700.1 Detailed Description . . . . .	480
4.701reflexChain Class Reference . . . . .	481
4.701.1 Detailed Description . . . . .	481
4.702RenderHints Class Reference . . . . .	481
4.702.1 Detailed Description . . . . .	481
4.703resource_item Struct Reference . . . . .	482
4.703.1 Detailed Description . . . . .	482
4.704row32 Struct Reference . . . . .	482
4.704.1 Detailed Description . . . . .	483

4.705s_renderer_capabilities_t Struct Reference . . . . .	483
4.705.1 Detailed Description . . . . .	483
4.706s_shader_capabilities Struct Reference . . . . .	484
4.706.1 Detailed Description . . . . .	485
4.707freeWRLSAI_cpp::saiBrowser Class Reference . . . . .	485
4.707.1 Detailed Description . . . . .	486
4.708freeWRLSAI_cpp::saiComponent Class Reference . . . . .	486
4.708.1 Detailed Description . . . . .	486
4.709freeWRLSAI_cpp::saiCustomException Class Reference . . . . .	486
4.709.1 Detailed Description . . . . .	487
4.710freeWRLSAI_cpp::saiException Class Reference . . . . .	487
4.710.1 Detailed Description . . . . .	488
4.711freeWRLSAI_cpp::saiExecutionContext Class Reference . . . . .	488
4.711.1 Detailed Description . . . . .	488
4.712freeWRLSAI_cpp::saiField Class Reference . . . . .	488
4.712.1 Detailed Description . . . . .	489
4.713freeWRLSAI_cpp::saiNode Class Reference . . . . .	489
4.713.1 Detailed Description . . . . .	489
4.714freeWRLSAI_cpp::saiProfileDeclaration Class Reference . . . . .	489
4.714.1 Detailed Description . . . . .	490
4.715freeWRLSAI_cpp::saiProto Class Reference . . . . .	490
4.715.1 Detailed Description . . . . .	490
4.716freeWRLSAI_cpp::saiRoute Class Reference . . . . .	490
4.716.1 Detailed Description . . . . .	490
4.717freeWRLSAI_cpp::saiScene Class Reference . . . . .	491
4.717.1 Detailed Description . . . . .	491
4.718sampledLine Class Reference . . . . .	491
4.718.1 Detailed Description . . . . .	491
4.719sCollisionGeometry Struct Reference . . . . .	492
4.719.1 Detailed Description . . . . .	492



4.720sCollisionInfo Struct Reference . . . . .	492
4.720.1 Detailed Description . . . . .	492
4.721screentextdata Struct Reference . . . . .	492
4.721.1 Detailed Description . . . . .	493
4.722vrml.node.Script Class Reference . . . . .	493
4.722.1 Detailed Description . . . . .	493
4.723ScriptablePluginObjectBase Class Reference . . . . .	494
4.723.1 Detailed Description . . . . .	495
4.724ScriptFieldDecl Struct Reference . . . . .	495
4.724.1 Detailed Description . . . . .	495
4.725ScriptFieldInstanceInfo Struct Reference . . . . .	495
4.725.1 Detailed Description . . . . .	495
4.726ScriptParamList Struct Reference . . . . .	496
4.726.1 Detailed Description . . . . .	496
4.727SensStruct Struct Reference . . . . .	496
4.727.1 Detailed Description . . . . .	496
4.728sFallInfo Struct Reference . . . . .	497
4.728.1 Detailed Description . . . . .	497
4.729org.web3d.x3d.sai.SFBool Interface Reference . . . . .	497
4.729.1 Detailed Description . . . . .	498
4.730vrml.field.SFBool Class Reference . . . . .	498
4.730.1 Detailed Description . . . . .	498
4.731SFColor Struct Reference . . . . .	499
4.731.1 Detailed Description . . . . .	499
4.732org.web3d.x3d.sai.SFColor Interface Reference . . . . .	499
4.732.1 Detailed Description . . . . .	499
4.733vrml.field.SFColor Class Reference . . . . .	500
4.733.1 Detailed Description . . . . .	500
4.734SFColorRGBA Struct Reference . . . . .	500
4.734.1 Detailed Description . . . . .	501

4.735org.web3d.x3d.sai.SFColorRGBA Interface Reference . . . . .	501
4.735.1 Detailed Description . . . . .	501
4.736org.web3d.x3d.sai.SFDouble Interface Reference . . . . .	501
4.736.1 Detailed Description . . . . .	502
4.737vrml.field.SFFloat Class Reference . . . . .	502
4.737.1 Detailed Description . . . . .	502
4.738org.web3d.x3d.sai.SFFloat Interface Reference . . . . .	503
4.738.1 Detailed Description . . . . .	503
4.739vrml.field.SFImage Class Reference . . . . .	503
4.739.1 Detailed Description . . . . .	504
4.740org.web3d.x3d.sai.SFImage Interface Reference . . . . .	504
4.740.1 Detailed Description . . . . .	504
4.741vrml.field.SFInt32 Class Reference . . . . .	505
4.741.1 Detailed Description . . . . .	505
4.742org.web3d.x3d.sai.SFInt32 Interface Reference . . . . .	505
4.742.1 Detailed Description . . . . .	506
4.743SFMatrix3d Struct Reference . . . . .	506
4.743.1 Detailed Description . . . . .	506
4.744SFMatrix3f Struct Reference . . . . .	506
4.744.1 Detailed Description . . . . .	506
4.745SFMatrix4d Struct Reference . . . . .	507
4.745.1 Detailed Description . . . . .	507
4.746SFMatrix4f Struct Reference . . . . .	507
4.746.1 Detailed Description . . . . .	507
4.747vrml.field.SFNode Class Reference . . . . .	507
4.747.1 Detailed Description . . . . .	508
4.748org.web3d.x3d.sai.SFNode Interface Reference . . . . .	508
4.748.1 Detailed Description . . . . .	508
4.749SFRotation Struct Reference . . . . .	509
4.749.1 Detailed Description . . . . .	509

4.750vrml.field.SFRotation Class Reference . . . . .	509
4.750.1 Detailed Description . . . . .	509
4.751org.web3d.x3d.sai.SFRotation Interface Reference . . . . .	510
4.751.1 Detailed Description . . . . .	510
4.752vrml.field.SFString Class Reference . . . . .	510
4.752.1 Detailed Description . . . . .	511
4.753org.web3d.x3d.sai.SFString Interface Reference . . . . .	511
4.753.1 Detailed Description . . . . .	511
4.754vrml.field.SFTime Class Reference . . . . .	511
4.754.1 Detailed Description . . . . .	512
4.755org.web3d.x3d.sai.SFTime Interface Reference . . . . .	512
4.755.1 Detailed Description . . . . .	512
4.756org.web3d.x3d.sai.SFVec2d Interface Reference . . . . .	513
4.756.1 Detailed Description . . . . .	513
4.757SFVec2d Struct Reference . . . . .	513
4.757.1 Detailed Description . . . . .	513
4.758SFVec2f Struct Reference . . . . .	513
4.758.1 Detailed Description . . . . .	514
4.759vrml.field.SFVec2f Class Reference . . . . .	514
4.759.1 Detailed Description . . . . .	514
4.760org.web3d.x3d.sai.SFVec2f Interface Reference . . . . .	515
4.760.1 Detailed Description . . . . .	515
4.761org.web3d.x3d.sai.SFVec3d Interface Reference . . . . .	515
4.761.1 Detailed Description . . . . .	515
4.762SFVec3d Struct Reference . . . . .	516
4.762.1 Detailed Description . . . . .	516
4.763org.web3d.x3d.sai.SFVec3f Interface Reference . . . . .	516
4.763.1 Detailed Description . . . . .	516
4.764vrml.field.SFVec3f Class Reference . . . . .	517
4.764.1 Detailed Description . . . . .	517

4.765SFVec3f Struct Reference . . . . .	517
4.765.1 Detailed Description . . . . .	518
4.766SFVec4d Struct Reference . . . . .	518
4.766.1 Detailed Description . . . . .	518
4.767SFVec4f Struct Reference . . . . .	518
4.767.1 Detailed Description . . . . .	518
4.768Shader_Script Struct Reference . . . . .	518
4.768.1 Detailed Description . . . . .	519
4.769shaderflagsstruct Struct Reference . . . . .	519
4.769.1 Detailed Description . . . . .	519
4.770shaderTableEntry Struct Reference . . . . .	519
4.770.1 Detailed Description . . . . .	519
4.771slice Struct Reference . . . . .	519
4.771.1 Detailed Description . . . . .	520
4.772Slicer Class Reference . . . . .	520
4.772.1 Detailed Description . . . . .	520
4.773sNavInfo Struct Reference . . . . .	521
4.773.1 Detailed Description . . . . .	521
4.774SNDFILE Struct Reference . . . . .	521
4.774.1 Detailed Description . . . . .	521
4.775Sorter Class Reference . . . . .	521
4.775.1 Detailed Description . . . . .	522
4.776Splinespec Struct Reference . . . . .	522
4.776.1 Detailed Description . . . . .	522
4.777ssr Struct Reference . . . . .	523
4.777.1 Detailed Description . . . . .	523
4.778SSR_request Struct Reference . . . . .	523
4.778.1 Detailed Description . . . . .	523
4.779stage Struct Reference . . . . .	524
4.779.1 Detailed Description . . . . .	524

4.780StoredVertex Class Reference . . . . .	524
4.780.1 Detailed Description . . . . .	524
4.781Subdivider Class Reference . . . . .	525
4.781.1 Detailed Description . . . . .	525
4.782surfEvalMachine Struct Reference . . . . .	525
4.782.1 Detailed Description . . . . .	526
4.783sweepRange Struct Reference . . . . .	526
4.783.1 Detailed Description . . . . .	526
4.784targetwindow Struct Reference . . . . .	526
4.784.1 Detailed Description . . . . .	527
4.785iiglobal::tBindable Struct Reference . . . . .	527
4.785.1 Detailed Description . . . . .	527
4.786iiglobal::tcollision Struct Reference . . . . .	527
4.786.1 Detailed Description . . . . .	527
4.787iiglobal::tcommon Struct Reference . . . . .	527
4.787.1 Detailed Description . . . . .	528
4.788iiglobal::tComponent_CubeMapTexturing Struct Reference . . . . .	528
4.788.1 Detailed Description . . . . .	528
4.789iiglobal::tComponent_EnvironSensor Struct Reference . . . . .	528
4.789.1 Detailed Description . . . . .	528
4.790iiglobal::tComponent_Followers Struct Reference . . . . .	528
4.790.1 Detailed Description . . . . .	529
4.791iiglobal::tComponent_Geometry3D Struct Reference . . . . .	529
4.791.1 Detailed Description . . . . .	529
4.792iiglobal::tComponent_Geospatial Struct Reference . . . . .	529
4.792.1 Detailed Description . . . . .	529
4.793iiglobal::tComponent_HAnim Struct Reference . . . . .	529
4.793.1 Detailed Description . . . . .	530
4.794iiglobal::tComponent_KeyDevice Struct Reference . . . . .	530
4.794.1 Detailed Description . . . . .	530

4.795iiglobal::tComponent_Layering Struct Reference . . . . .	530
4.795.1 Detailed Description . . . . .	530
4.796iiglobal::tComponent_Layout Struct Reference . . . . .	530
4.796.1 Detailed Description . . . . .	531
4.797iiglobal::tComponent_NURBS Struct Reference . . . . .	531
4.797.1 Detailed Description . . . . .	531
4.798iiglobal::tComponent_ParticleSystems Struct Reference . . . . .	531
4.798.1 Detailed Description . . . . .	531
4.799iiglobal::tComponent_Picking Struct Reference . . . . .	531
4.799.1 Detailed Description . . . . .	532
4.800iiglobal::tComponent_ProgrammableShaders Struct Reference . . . . .	532
4.800.1 Detailed Description . . . . .	532
4.801iiglobal::tComponent_Rendering Struct Reference . . . . .	532
4.801.1 Detailed Description . . . . .	532
4.802iiglobal::tComponent_RigidBodyPhysics Struct Reference . . . . .	532
4.802.1 Detailed Description . . . . .	533
4.803iiglobal::tComponent_Shape Struct Reference . . . . .	533
4.803.1 Detailed Description . . . . .	533
4.804iiglobal::tComponent_Sound Struct Reference . . . . .	533
4.804.1 Detailed Description . . . . .	533
4.805iiglobal::tComponent_Text Struct Reference . . . . .	533
4.805.1 Detailed Description . . . . .	534
4.806iiglobal::tComponent_VolumeRendering Struct Reference . . . . .	534
4.806.1 Detailed Description . . . . .	534
4.807iiglobal::tComponent_VRML1 Struct Reference . . . . .	534
4.807.1 Detailed Description . . . . .	534
4.808iiglobal::tConsoleMessage Struct Reference . . . . .	534
4.808.1 Detailed Description . . . . .	535
4.809tcontenttype Struct Reference . . . . .	535
4.809.1 Detailed Description . . . . .	535

4.810iiglobal::tCParse Struct Reference . . . . .	535
4.810.1 Detailed Description . . . . .	535
4.811iiglobal::tCParseParser Struct Reference . . . . .	536
4.811.1 Detailed Description . . . . .	536
4.812iiglobal::tCRoutes Struct Reference . . . . .	536
4.812.1 Detailed Description . . . . .	536
4.813iiglobal::tCScripts Struct Reference . . . . .	536
4.813.1 Detailed Description . . . . .	536
4.814iiglobal::tCursorDraw Struct Reference . . . . .	537
4.814.1 Detailed Description . . . . .	537
4.815iiglobal::tdisplay Struct Reference . . . . .	537
4.815.1 Detailed Description . . . . .	537
4.816iiglobal::tEAI_C_CommonFunctions Struct Reference . . . . .	537
4.816.1 Detailed Description . . . . .	538
4.817iiglobal::tEAICore Struct Reference . . . . .	538
4.817.1 Detailed Description . . . . .	538
4.818iiglobal::tEAIEventsIn Struct Reference . . . . .	538
4.818.1 Detailed Description . . . . .	538
4.819iiglobal::tEAHelpers Struct Reference . . . . .	538
4.819.1 Detailed Description . . . . .	539
4.820text_combiner_data Struct Reference . . . . .	539
4.820.1 Detailed Description . . . . .	539
4.821textureTableIndexStruct Struct Reference . . . . .	539
4.821.1 Detailed Description . . . . .	540
4.822textureVertexInfo Struct Reference . . . . .	540
4.822.1 Detailed Description . . . . .	540
4.823iiglobal::tFrustum Struct Reference . . . . .	540
4.823.1 Detailed Description . . . . .	540
4.824iiglobal::tinternalc Struct Reference . . . . .	541
4.824.1 Detailed Description . . . . .	541

4.825iiglobal::tJScript Struct Reference . . . . .	541
4.825.1 Detailed Description . . . . .	541
4.826iiglobal::tjsUtils Struct Reference . . . . .	541
4.826.1 Detailed Description . . . . .	542
4.827iiglobal::tjsVRMLBrowser Struct Reference . . . . .	542
4.827.1 Detailed Description . . . . .	542
4.828iiglobal::tjsVRMLClasses Struct Reference . . . . .	542
4.828.1 Detailed Description . . . . .	542
4.829iiglobal::tLoadTextures Struct Reference . . . . .	542
4.829.1 Detailed Description . . . . .	543
4.830tm_unz_s Struct Reference . . . . .	543
4.830.1 Detailed Description . . . . .	543
4.831tm_zip_s Struct Reference . . . . .	543
4.831.1 Detailed Description . . . . .	543
4.832iiglobal::tMainloop Struct Reference . . . . .	544
4.832.1 Detailed Description . . . . .	544
4.833iiglobal::tOpenGL_Utils Struct Reference . . . . .	544
4.833.1 Detailed Description . . . . .	545
4.834Touch Struct Reference . . . . .	545
4.834.1 Detailed Description . . . . .	545
4.835iiglobal::tPluginSocket Struct Reference . . . . .	546
4.835.1 Detailed Description . . . . .	546
4.836iiglobal::tpluginUtils Struct Reference . . . . .	546
4.836.1 Detailed Description . . . . .	546
4.837iiglobal::tProdCon Struct Reference . . . . .	546
4.837.1 Detailed Description . . . . .	547
4.838treeNode Struct Reference . . . . .	547
4.838.1 Detailed Description . . . . .	547
4.839iiglobal::tRenderFuncs Struct Reference . . . . .	547
4.839.1 Detailed Description . . . . .	548



4.840trenderstate Struct Reference . . . . .	548
4.840.1 Detailed Description . . . . .	548
4.841iiglobal::tRenderTextures Struct Reference . . . . .	548
4.841.1 Detailed Description . . . . .	548
4.842iiglobal::tresources Struct Reference . . . . .	549
4.842.1 Detailed Description . . . . .	549
4.843Trimline Class Reference . . . . .	549
4.843.1 Detailed Description . . . . .	549
4.844TrimRegion Class Reference . . . . .	550
4.844.1 Detailed Description . . . . .	550
4.845TrimVertex Class Reference . . . . .	550
4.845.1 Detailed Description . . . . .	551
4.846TrimVertexPool Class Reference . . . . .	551
4.846.1 Detailed Description . . . . .	551
4.847iiglobal::tSensInterps Struct Reference . . . . .	551
4.847.1 Detailed Description . . . . .	551
4.848iiglobal::tSnapshot Struct Reference . . . . .	551
4.848.1 Detailed Description . . . . .	552
4.849iiglobal::tstatusbar Struct Reference . . . . .	552
4.849.1 Detailed Description . . . . .	552
4.850iiglobal::tStreamPoly Struct Reference . . . . .	552
4.850.1 Detailed Description . . . . .	552
4.851iiglobal::tTess Struct Reference . . . . .	552
4.851.1 Detailed Description . . . . .	553
4.852iiglobal::tTextures Struct Reference . . . . .	553
4.852.1 Detailed Description . . . . .	553
4.853iiglobal::tthreads Struct Reference . . . . .	553
4.853.1 Detailed Description . . . . .	554
4.854iiglobal::tViewer Struct Reference . . . . .	554
4.854.1 Detailed Description . . . . .	554

4.855iiglobal::tX3DParser Struct Reference . . . . .	554
4.855.1 Detailed Description . . . . .	554
4.856Uarray Class Reference . . . . .	554
4.856.1 Detailed Description . . . . .	555
4.857un1 Union Reference . . . . .	555
4.857.1 Detailed Description . . . . .	555
4.858Uni_String Struct Reference . . . . .	555
4.858.1 Detailed Description . . . . .	555
4.859sai.eai.UnsupportedFieldTypeException Class Reference . . . . .	556
4.859.1 Detailed Description . . . . .	556
4.860vrml.external.FreeWRLEAI.UnsupportedFieldTypeException Class Reference . . . . .	556
4.860.1 Detailed Description . . . . .	556
4.861unz64_file_pos_s Struct Reference . . . . .	557
4.861.1 Detailed Description . . . . .	557
4.862unz64_s Struct Reference . . . . .	557
4.862.1 Detailed Description . . . . .	557
4.863unz_file_info64_internal_s Struct Reference . . . . .	558
4.863.1 Detailed Description . . . . .	558
4.864unz_file_info64_s Struct Reference . . . . .	558
4.864.1 Detailed Description . . . . .	558
4.865unz_file_info_s Struct Reference . . . . .	559
4.865.1 Detailed Description . . . . .	559
4.866unz_file_pos_s Struct Reference . . . . .	559
4.866.1 Detailed Description . . . . .	559
4.867unz_global_info64_s Struct Reference . . . . .	559
4.867.1 Detailed Description . . . . .	560
4.868unz_global_info_s Struct Reference . . . . .	560
4.868.1 Detailed Description . . . . .	560
4.869org.web3d.x3d.sai.URLUnavailableException Class Reference . . . . .	560
4.869.1 Detailed Description . . . . .	560

4.870freeWRLSAI_cpp::urlUnavailableException Class Reference . . . . .	561
4.870.1 Detailed Description . . . . .	561
4.871usehit Struct Reference . . . . .	561
4.871.1 Detailed Description . . . . .	561
4.872Varray Class Reference . . . . .	562
4.872.1 Detailed Description . . . . .	562
4.873vec2 Struct Reference . . . . .	562
4.873.1 Detailed Description . . . . .	562
4.874vec4 Struct Reference . . . . .	562
4.874.1 Detailed Description . . . . .	563
4.875Vector Struct Reference . . . . .	563
4.875.1 Detailed Description . . . . .	563
4.876vertexArray Class Reference . . . . .	563
4.876.1 Detailed Description . . . . .	564
4.877sai.eai.VField Class Reference . . . . .	564
4.877.1 Detailed Description . . . . .	565
4.878vrml.external.FreeWRLEAI.VField Class Reference . . . . .	565
4.878.1 Detailed Description . . . . .	567
4.879vid_stream Struct Reference . . . . .	567
4.879.1 Detailed Description . . . . .	568
4.880viewer Struct Reference . . . . .	568
4.880.1 Detailed Description . . . . .	569
4.881viewer_examine Struct Reference . . . . .	570
4.881.1 Detailed Description . . . . .	570
4.882viewer_fly Struct Reference . . . . .	570
4.882.1 Detailed Description . . . . .	570
4.883viewer_inplane Struct Reference . . . . .	570
4.883.1 Detailed Description . . . . .	571
4.884viewer_walk Struct Reference . . . . .	571
4.884.1 Detailed Description . . . . .	571

4.885viewer_ypz Struct Reference . . . . .	571
4.885.1 Detailed Description . . . . .	571
4.886sai.eai.VIP Class Reference . . . . .	572
4.886.1 Detailed Description . . . . .	572
4.887vrml.external.FreeWRLEAI.VIP Class Reference . . . . .	572
4.887.1 Detailed Description . . . . .	573
4.888sai.eai.VMFCOLOR Class Reference . . . . .	573
4.888.1 Detailed Description . . . . .	574
4.889vrml.external.FreeWRLEAI.VMFCOLOR Class Reference . . . . .	574
4.889.1 Detailed Description . . . . .	574
4.890sai.eai.VMFFloat Class Reference . . . . .	575
4.890.1 Detailed Description . . . . .	575
4.891vrml.external.FreeWRLEAI.VMFFloat Class Reference . . . . .	575
4.891.1 Detailed Description . . . . .	576
4.892sai.eai.VMFInt32 Class Reference . . . . .	576
4.892.1 Detailed Description . . . . .	576
4.893vrml.external.FreeWRLEAI.VMFInt32 Class Reference . . . . .	576
4.893.1 Detailed Description . . . . .	577
4.894sai.eai.VMFRotation Class Reference . . . . .	577
4.894.1 Detailed Description . . . . .	577
4.895vrml.external.FreeWRLEAI.VMFRotation Class Reference . . . . .	578
4.895.1 Detailed Description . . . . .	578
4.896vrml.external.FreeWRLEAI.VMFString Class Reference . . . . .	578
4.896.1 Detailed Description . . . . .	579
4.897sai.eai.VMFString Class Reference . . . . .	579
4.897.1 Detailed Description . . . . .	579
4.898vrml.external.FreeWRLEAI.VMFVec2f Class Reference . . . . .	579
4.898.1 Detailed Description . . . . .	580
4.899sai.eai.VMFVec2f Class Reference . . . . .	580
4.899.1 Detailed Description . . . . .	580

4.900vrml.external.FreeWRLEAI.VMFVec3f Class Reference . . . . .	581
4.900.1 Detailed Description . . . . .	581
4.901sai.eai.VMFVec3f Class Reference . . . . .	581
4.901.1 Detailed Description . . . . .	582
4.902void3 Struct Reference . . . . .	582
4.902.1 Detailed Description . . . . .	582
4.903VRMLLexer Struct Reference . . . . .	582
4.903.1 Detailed Description . . . . .	583
4.904sai.eai.VRMLObject Class Reference . . . . .	583
4.904.1 Detailed Description . . . . .	583
4.905vrml.external.FreeWRLEAI.VRMLObject Class Reference . . . . .	584
4.905.1 Detailed Description . . . . .	584
4.906vrml.external.FreeWRLEAI.VRMLObjectObserver Interface Reference . . . . .	584
4.906.1 Detailed Description . . . . .	585
4.907sai.eai.VRMLObjectObserver Interface Reference . . . . .	585
4.907.1 Detailed Description . . . . .	585
4.908VRMLParser Struct Reference . . . . .	585
4.908.1 Detailed Description . . . . .	585
4.909sai.eai.VSFBool Class Reference . . . . .	586
4.909.1 Detailed Description . . . . .	586
4.910vrml.external.FreeWRLEAI.VSFBool Class Reference . . . . .	586
4.910.1 Detailed Description . . . . .	587
4.911sai.eai.VSFColor Class Reference . . . . .	587
4.911.1 Detailed Description . . . . .	587
4.912vrml.external.FreeWRLEAI.VSFColor Class Reference . . . . .	587
4.912.1 Detailed Description . . . . .	588
4.913vrml.external.FreeWRLEAI.VSFFloat Class Reference . . . . .	588
4.913.1 Detailed Description . . . . .	588
4.914sai.eai.VSFFloat Class Reference . . . . .	589
4.914.1 Detailed Description . . . . .	589

4.915vrml.external.FreeWRLEAI.VSFImage Class Reference . . . . .	589
4.915.1 Detailed Description . . . . .	590
4.916sai.eai.VSFImage Class Reference . . . . .	590
4.916.1 Detailed Description . . . . .	590
4.917sai.eai.VSFInt32 Class Reference . . . . .	590
4.917.1 Detailed Description . . . . .	591
4.918vrml.external.FreeWRLEAI.VSFInt32 Class Reference . . . . .	591
4.918.1 Detailed Description . . . . .	591
4.919sai.eai.VSFRotation Class Reference . . . . .	592
4.919.1 Detailed Description . . . . .	592
4.920vrml.external.FreeWRLEAI.VSFRotation Class Reference . . . . .	592
4.920.1 Detailed Description . . . . .	593
4.921sai.eai.VSFString Class Reference . . . . .	593
4.921.1 Detailed Description . . . . .	593
4.922vrml.external.FreeWRLEAI.VSFString Class Reference . . . . .	593
4.922.1 Detailed Description . . . . .	594
4.923sai.eai.VSFTime Class Reference . . . . .	594
4.923.1 Detailed Description . . . . .	594
4.924vrml.external.FreeWRLEAI.VSFTime Class Reference . . . . .	595
4.924.1 Detailed Description . . . . .	595
4.925sai.eai.VSFVec2f Class Reference . . . . .	595
4.925.1 Detailed Description . . . . .	596
4.926vrml.external.FreeWRLEAI.VSFVec2f Class Reference . . . . .	596
4.926.1 Detailed Description . . . . .	596
4.927vrml.external.FreeWRLEAI.VSFVec3f Class Reference . . . . .	596
4.927.1 Detailed Description . . . . .	597
4.928sai.eai.VSFVec3f Class Reference . . . . .	597
4.928.1 Detailed Description . . . . .	598
4.929walk_cbdata Struct Reference . . . . .	598
4.929.1 Detailed Description . . . . .	598

4.930WEB3DNATIVE Struct Reference . . . . .	598
4.930.1 Detailed Description . . . . .	599
4.931X3D_Ancor Struct Reference . . . . .	599
4.931.1 Detailed Description . . . . .	599
4.932X3D_Appearance Struct Reference . . . . .	600
4.932.1 Detailed Description . . . . .	600
4.933X3D_Arc2D Struct Reference . . . . .	600
4.933.1 Detailed Description . . . . .	601
4.934X3D_ArcClose2D Struct Reference . . . . .	601
4.934.1 Detailed Description . . . . .	601
4.935X3D_AudioClip Struct Reference . . . . .	602
4.935.1 Detailed Description . . . . .	602
4.936X3D_BackdropBackground Struct Reference . . . . .	603
4.936.1 Detailed Description . . . . .	603
4.937X3D_Background Struct Reference . . . . .	603
4.937.1 Detailed Description . . . . .	604
4.938X3D_BallJoint Struct Reference . . . . .	604
4.938.1 Detailed Description . . . . .	605
4.939X3D_Billboard Struct Reference . . . . .	605
4.939.1 Detailed Description . . . . .	606
4.940X3D_BlendedVolumeStyle Struct Reference . . . . .	606
4.940.1 Detailed Description . . . . .	606
4.941X3D_BooleanFilter Struct Reference . . . . .	607
4.941.1 Detailed Description . . . . .	607
4.942X3D_BooleanSequencer Struct Reference . . . . .	607
4.942.1 Detailed Description . . . . .	608
4.943X3D_BooleanToggle Struct Reference . . . . .	608
4.943.1 Detailed Description . . . . .	608
4.944X3D_BooleanTrigger Struct Reference . . . . .	608
4.944.1 Detailed Description . . . . .	609

4.945X3D_BoundaryEnhancementVolumeStyle Struct Reference . . . . .	609
4.945.1 Detailed Description . . . . .	609
4.946X3D_BoundedPhysicsModel Struct Reference . . . . .	610
4.946.1 Detailed Description . . . . .	610
4.947X3D_Box Struct Reference . . . . .	610
4.947.1 Detailed Description . . . . .	611
4.948X3D_CADAssembly Struct Reference . . . . .	611
4.948.1 Detailed Description . . . . .	611
4.949X3D_CADFace Struct Reference . . . . .	612
4.949.1 Detailed Description . . . . .	612
4.950X3D_CADLayer Struct Reference . . . . .	612
4.950.1 Detailed Description . . . . .	613
4.951X3D_CADPart Struct Reference . . . . .	613
4.951.1 Detailed Description . . . . .	613
4.952X3D_CalibratedCameraSensor Struct Reference . . . . .	614
4.952.1 Detailed Description . . . . .	614
4.953X3D_CartoonVolumeStyle Struct Reference . . . . .	614
4.953.1 Detailed Description . . . . .	615
4.954X3D_Circle2D Struct Reference . . . . .	615
4.954.1 Detailed Description . . . . .	615
4.955X3D_ClipPlane Struct Reference . . . . .	615
4.955.1 Detailed Description . . . . .	616
4.956X3D_CollidableOffset Struct Reference . . . . .	616
4.956.1 Detailed Description . . . . .	616
4.957X3D_CollidableShape Struct Reference . . . . .	617
4.957.1 Detailed Description . . . . .	617
4.958X3D_Collision Struct Reference . . . . .	617
4.958.1 Detailed Description . . . . .	618
4.959X3D_CollisionCollection Struct Reference . . . . .	618
4.959.1 Detailed Description . . . . .	619



4.960X3D_CollisionSensor Struct Reference . . . . .	619
4.960.1 Detailed Description . . . . .	619
4.961X3D_CollisionSpace Struct Reference . . . . .	620
4.961.1 Detailed Description . . . . .	620
4.962X3D_Color Struct Reference . . . . .	620
4.962.1 Detailed Description . . . . .	621
4.963X3D_ColorChaser Struct Reference . . . . .	621
4.963.1 Detailed Description . . . . .	621
4.964X3D_ColorDamper Struct Reference . . . . .	622
4.964.1 Detailed Description . . . . .	622
4.965X3D_ColorInterpolator Struct Reference . . . . .	623
4.965.1 Detailed Description . . . . .	623
4.966X3D_ColorRGBA Struct Reference . . . . .	623
4.966.1 Detailed Description . . . . .	624
4.967X3D_ComposedCubeMapTexture Struct Reference . . . . .	624
4.967.1 Detailed Description . . . . .	624
4.968X3D_ComposedShader Struct Reference . . . . .	625
4.968.1 Detailed Description . . . . .	625
4.969X3D_ComposedTexture3D Struct Reference . . . . .	625
4.969.1 Detailed Description . . . . .	626
4.970X3D_ComposedVolumeStyle Struct Reference . . . . .	626
4.970.1 Detailed Description . . . . .	626
4.971X3D_CompositeVolumeStyle Struct Reference . . . . .	627
4.971.1 Detailed Description . . . . .	627
4.972X3D_Cone Struct Reference . . . . .	627
4.972.1 Detailed Description . . . . .	628
4.973X3D_ConeEmitter Struct Reference . . . . .	628
4.973.1 Detailed Description . . . . .	628
4.974X3D_Contact Struct Reference . . . . .	629
4.974.1 Detailed Description . . . . .	629

4.975X3D_Contour2D Struct Reference . . . . .	630
4.975.1 Detailed Description . . . . .	630
4.976X3D_ContourPolyline2D Struct Reference . . . . .	630
4.976.1 Detailed Description . . . . .	631
4.977X3D_Coordinate Struct Reference . . . . .	631
4.977.1 Detailed Description . . . . .	631
4.978X3D_CoordinateChaser Struct Reference . . . . .	631
4.978.1 Detailed Description . . . . .	632
4.979X3D_CoordinateDamper Struct Reference . . . . .	632
4.979.1 Detailed Description . . . . .	633
4.980X3D_CoordinateDouble Struct Reference . . . . .	633
4.980.1 Detailed Description . . . . .	633
4.981X3D_CoordinateInterpolator Struct Reference . . . . .	634
4.981.1 Detailed Description . . . . .	634
4.982X3D_CoordinateInterpolator2D Struct Reference . . . . .	634
4.982.1 Detailed Description . . . . .	635
4.983X3D_Cylinder Struct Reference . . . . .	635
4.983.1 Detailed Description . . . . .	635
4.984X3D_CylinderSensor Struct Reference . . . . .	636
4.984.1 Detailed Description . . . . .	636
4.985X3D_DirectionalLight Struct Reference . . . . .	637
4.985.1 Detailed Description . . . . .	637
4.986X3D_DISEntityManager Struct Reference . . . . .	637
4.986.1 Detailed Description . . . . .	638
4.987X3D_DISEntityTypeMapping Struct Reference . . . . .	638
4.987.1 Detailed Description . . . . .	639
4.988X3D_Disk2D Struct Reference . . . . .	639
4.988.1 Detailed Description . . . . .	639
4.989X3D_DoubleAxisHingeJoint Struct Reference . . . . .	640
4.989.1 Detailed Description . . . . .	641

4.990X3D_EaseInEaseOut Struct Reference . . . . .	641
4.990.1 Detailed Description . . . . .	641
4.991X3D_EdgeEnhancementVolumeStyle Struct Reference . . . . .	642
4.991.1 Detailed Description . . . . .	642
4.992X3D_Effect Struct Reference . . . . .	642
4.992.1 Detailed Description . . . . .	643
4.993X3D_EffectPart Struct Reference . . . . .	643
4.993.1 Detailed Description . . . . .	643
4.994X3D_ElevationGrid Struct Reference . . . . .	644
4.994.1 Detailed Description . . . . .	644
4.995X3D_EspduTransform Struct Reference . . . . .	645
4.995.1 Detailed Description . . . . .	647
4.996X3D_ExplosionEmitter Struct Reference . . . . .	647
4.996.1 Detailed Description . . . . .	647
4.997X3D_Extrusion Struct Reference . . . . .	648
4.997.1 Detailed Description . . . . .	648
4.998X3D_FillProperties Struct Reference . . . . .	649
4.998.1 Detailed Description . . . . .	649
4.999X3D_FloatVertexAttribute Struct Reference . . . . .	649
4.999.1 Detailed Description . . . . .	650
4.100X3D_Fog Struct Reference . . . . .	650
4.1000. Detailed Description . . . . .	650
4.100X3D_FogCoordinate Struct Reference . . . . .	651
4.1001. Detailed Description . . . . .	651
4.100X3D_FontStyle Struct Reference . . . . .	651
4.1002. Detailed Description . . . . .	652
4.100X3D_ForcePhysicsModel Struct Reference . . . . .	652
4.1003. Detailed Description . . . . .	652
4.100X3D_GeneratedCubeMapTexture Struct Reference . . . . .	653
4.1004. Detailed Description . . . . .	653

4.100X3D_GeoCoordinate Struct Reference . . . . .	653
4.1005. Detailed Description . . . . .	654
4.100X3D_GeoElevationGrid Struct Reference . . . . .	654
4.1006. Detailed Description . . . . .	655
4.100X3D_GeoLocation Struct Reference . . . . .	655
4.1007. Detailed Description . . . . .	655
4.100X3D_GeoLOD Struct Reference . . . . .	656
4.1008. Detailed Description . . . . .	656
4.100X3D_GeoMetadata Struct Reference . . . . .	657
4.1009. Detailed Description . . . . .	657
4.101X3D_GeoOrigin Struct Reference . . . . .	657
4.1010. Detailed Description . . . . .	658
4.101X3D_GeoPositionInterpolator Struct Reference . . . . .	658
4.1011. Detailed Description . . . . .	658
4.101X3D_GeoProximitySensor Struct Reference . . . . .	659
4.1012. Detailed Description . . . . .	659
4.101X3D_GeoTouchSensor Struct Reference . . . . .	660
4.1013. Detailed Description . . . . .	660
4.101X3D_GeoTransform Struct Reference . . . . .	661
4.1014. Detailed Description . . . . .	661
4.101X3D_GeoViewpoint Struct Reference . . . . .	662
4.1015. Detailed Description . . . . .	662
4.101X3D_Group Struct Reference . . . . .	663
4.1016. Detailed Description . . . . .	663
4.101X3D_HAnimDisplacer Struct Reference . . . . .	663
4.1017. Detailed Description . . . . .	664
4.101X3D_HAnimHumanoid Struct Reference . . . . .	664
4.1018. Detailed Description . . . . .	665
4.101X3D_HAnimJoint Struct Reference . . . . .	665
4.1019. Detailed Description . . . . .	666

4.102 <del>X</del> 3D_HAnimSegment Struct Reference . . . . .	666
4.1020. Detailed Description . . . . .	666
4.102 <del>X</del> 3D_HAnimSite Struct Reference . . . . .	667
4.1021. Detailed Description . . . . .	667
4.102 <del>X</del> 3D_ImageBackdropBackground Struct Reference . . . . .	668
4.1022. Detailed Description . . . . .	668
4.102 <del>X</del> 3D_ImageCubeMapTexture Struct Reference . . . . .	668
4.1023. Detailed Description . . . . .	669
4.102 <del>X</del> 3D_ImageTexture Struct Reference . . . . .	669
4.1024. Detailed Description . . . . .	669
4.102 <del>X</del> 3D_ImageTexture3D Struct Reference . . . . .	670
4.1025. Detailed Description . . . . .	670
4.102 <del>X</del> 3D_IndexedFaceSet Struct Reference . . . . .	670
4.1026. Detailed Description . . . . .	671
4.102 <del>X</del> 3D_IndexedLineSet Struct Reference . . . . .	671
4.1027. Detailed Description . . . . .	672
4.102 <del>X</del> 3D_IndexedQuadSet Struct Reference . . . . .	672
4.1028. Detailed Description . . . . .	673
4.102 <del>X</del> 3D_IndexedTriangleFanSet Struct Reference . . . . .	673
4.1029. Detailed Description . . . . .	673
4.103 <del>X</del> 3D_IndexedTriangleSet Struct Reference . . . . .	674
4.1030. Detailed Description . . . . .	674
4.103 <del>X</del> 3D_IndexedTriangleStripSet Struct Reference . . . . .	674
4.1031. Detailed Description . . . . .	675
4.103 <del>X</del> 3D_Inline Struct Reference . . . . .	675
4.1032. Detailed Description . . . . .	676
4.103 <del>X</del> 3D_IntegerSequencer Struct Reference . . . . .	676
4.1033. Detailed Description . . . . .	677
4.103 <del>X</del> 3D_IntegerTrigger Struct Reference . . . . .	677
4.1034. Detailed Description . . . . .	677

4.103 <del>X</del> 3D_IsoSurfaceVolumeData Struct Reference . . . . .	678
4.1035. Detailed Description . . . . .	678
4.103 <del>X</del> 3D_KeySensor Struct Reference . . . . .	678
4.1036. Detailed Description . . . . .	679
4.103 <del>X</del> 3D_Layer Struct Reference . . . . .	679
4.1037. Detailed Description . . . . .	680
4.103 <del>X</del> 3D_LayerSet Struct Reference . . . . .	680
4.1038. Detailed Description . . . . .	680
4.103 <del>X</del> 3D_Layout Struct Reference . . . . .	681
4.1039. Detailed Description . . . . .	681
4.104 <del>X</del> 3D_LayoutGroup Struct Reference . . . . .	681
4.1040. Detailed Description . . . . .	682
4.104 <del>X</del> 3D_LayoutLayer Struct Reference . . . . .	682
4.1041. Detailed Description . . . . .	683
4.104 <del>X</del> 3D_LinePickSensor Struct Reference . . . . .	683
4.1042. Detailed Description . . . . .	683
4.104 <del>X</del> 3D_LineProperties Struct Reference . . . . .	684
4.1043. Detailed Description . . . . .	684
4.104 <del>X</del> 3D_LineSensor Struct Reference . . . . .	684
4.1044. Detailed Description . . . . .	685
4.104 <del>X</del> 3D_LineSet Struct Reference . . . . .	685
4.1045. Detailed Description . . . . .	686
4.104 <del>X</del> 3D_LoadSensor Struct Reference . . . . .	686
4.1046. Detailed Description . . . . .	686
4.104 <del>X</del> 3D_LocalFog Struct Reference . . . . .	687
4.1047. Detailed Description . . . . .	687
4.104 <del>X</del> 3D_LOD Struct Reference . . . . .	687
4.1048. Detailed Description . . . . .	688
4.104 <del>X</del> 3D_Material Struct Reference . . . . .	688
4.1049. Detailed Description . . . . .	689

4.105 <del>X</del> 3D_Matrix3VertexAttribute Struct Reference . . . . .	689
4.1050. Detailed Description . . . . .	689
4.105 <del>X</del> 3D_Matrix4VertexAttribute Struct Reference . . . . .	689
4.1051. Detailed Description . . . . .	690
4.105 <del>X</del> 3D_MetadataBoolean Struct Reference . . . . .	690
4.1052. Detailed Description . . . . .	690
4.105 <del>X</del> 3D_MetadataDouble Struct Reference . . . . .	691
4.1053. Detailed Description . . . . .	691
4.105 <del>X</del> 3D_MetadataFloat Struct Reference . . . . .	691
4.1054. Detailed Description . . . . .	692
4.105 <del>X</del> 3D_MetadataInteger Struct Reference . . . . .	692
4.1055. Detailed Description . . . . .	692
4.105 <del>X</del> 3D_MetadataMFBool Struct Reference . . . . .	693
4.1056. Detailed Description . . . . .	693
4.105 <del>X</del> 3D_MetadataMFColor Struct Reference . . . . .	693
4.1057. Detailed Description . . . . .	694
4.105 <del>X</del> 3D_MetadataMFColorRGBA Struct Reference . . . . .	694
4.1058. Detailed Description . . . . .	694
4.105 <del>X</del> 3D_MetadataMFDouble Struct Reference . . . . .	695
4.1059. Detailed Description . . . . .	695
4.106 <del>X</del> 3D_MetadataMFFloat Struct Reference . . . . .	695
4.1060. Detailed Description . . . . .	696
4.106 <del>X</del> 3D_MetadataMFInt32 Struct Reference . . . . .	696
4.1061. Detailed Description . . . . .	696
4.106 <del>X</del> 3D_MetadataMFMatrix3d Struct Reference . . . . .	697
4.1062. Detailed Description . . . . .	697
4.106 <del>X</del> 3D_MetadataMFMatrix3f Struct Reference . . . . .	697
4.1063. Detailed Description . . . . .	698
4.106 <del>X</del> 3D_MetadataMFMatrix4d Struct Reference . . . . .	698
4.1064. Detailed Description . . . . .	698

4.106 <del>X</del> 3D_MetadataMFMatrix4f Struct Reference . . . . .	699
4.1065. Detailed Description . . . . .	699
4.106 <del>X</del> 3D_MetadataMFNode Struct Reference . . . . .	699
4.1066. Detailed Description . . . . .	700
4.106 <del>X</del> 3D_MetadataMFRotation Struct Reference . . . . .	700
4.1067. Detailed Description . . . . .	700
4.106 <del>X</del> 3D_MetadataMFString Struct Reference . . . . .	701
4.1068. Detailed Description . . . . .	701
4.106 <del>X</del> 3D_MetadataMFTime Struct Reference . . . . .	701
4.1069. Detailed Description . . . . .	702
4.107 <del>X</del> 3D_MetadataMFVec2d Struct Reference . . . . .	702
4.1070. Detailed Description . . . . .	702
4.107 <del>X</del> 3D_MetadataMFVec2f Struct Reference . . . . .	703
4.1071. Detailed Description . . . . .	703
4.107 <del>X</del> 3D_MetadataMFVec3d Struct Reference . . . . .	703
4.1072. Detailed Description . . . . .	704
4.107 <del>X</del> 3D_MetadataMFVec3f Struct Reference . . . . .	704
4.1073. Detailed Description . . . . .	704
4.107 <del>X</del> 3D_MetadataMFVec4d Struct Reference . . . . .	705
4.1074. Detailed Description . . . . .	705
4.107 <del>X</del> 3D_MetadataMFVec4f Struct Reference . . . . .	705
4.1075. Detailed Description . . . . .	706
4.107 <del>X</del> 3D_MetadataSet Struct Reference . . . . .	706
4.1076. Detailed Description . . . . .	706
4.107 <del>X</del> 3D_MetadataSFBool Struct Reference . . . . .	707
4.1077. Detailed Description . . . . .	707
4.107 <del>X</del> 3D_MetadataSFColor Struct Reference . . . . .	707
4.1078. Detailed Description . . . . .	708
4.107 <del>X</del> 3D_MetadataSFColorRGBA Struct Reference . . . . .	708
4.1079. Detailed Description . . . . .	708



4.108 <del>X</del> 3D_MetadataSFDouble Struct Reference . . . . .	709
4.1080. Detailed Description . . . . .	709
4.108 <del>X</del> 3D_MetadataSFFloat Struct Reference . . . . .	709
4.1081. Detailed Description . . . . .	710
4.108 <del>X</del> 3D_MetadataSFImage Struct Reference . . . . .	710
4.1082. Detailed Description . . . . .	710
4.108 <del>X</del> 3D_MetadataSFInt32 Struct Reference . . . . .	711
4.1083. Detailed Description . . . . .	711
4.108 <del>X</del> 3D_MetadataSFMatrix3d Struct Reference . . . . .	711
4.1084. Detailed Description . . . . .	712
4.108 <del>X</del> 3D_MetadataSFMatrix3f Struct Reference . . . . .	712
4.1085. Detailed Description . . . . .	712
4.108 <del>X</del> 3D_MetadataSFMatrix4d Struct Reference . . . . .	713
4.1086. Detailed Description . . . . .	713
4.108 <del>X</del> 3D_MetadataSFMatrix4f Struct Reference . . . . .	713
4.1087. Detailed Description . . . . .	714
4.108 <del>X</del> 3D_MetadataSFNode Struct Reference . . . . .	714
4.1088. Detailed Description . . . . .	714
4.108 <del>X</del> 3D_MetadataSFRotation Struct Reference . . . . .	715
4.1089. Detailed Description . . . . .	715
4.109 <del>X</del> 3D_MetadataSFString Struct Reference . . . . .	715
4.1090. Detailed Description . . . . .	716
4.109 <del>X</del> 3D_MetadataSFTime Struct Reference . . . . .	716
4.1091. Detailed Description . . . . .	716
4.109 <del>X</del> 3D_MetadataSFVec2d Struct Reference . . . . .	717
4.1092. Detailed Description . . . . .	717
4.109 <del>X</del> 3D_MetadataSFVec2f Struct Reference . . . . .	717
4.1093. Detailed Description . . . . .	718
4.109 <del>X</del> 3D_MetadataSFVec3d Struct Reference . . . . .	718
4.1094. Detailed Description . . . . .	718

4.109X3D_MetadataSFVec3f Struct Reference . . . . .	719
4.1095. Detailed Description . . . . .	719
4.109X3D_MetadataSFVec4d Struct Reference . . . . .	719
4.1096. Detailed Description . . . . .	720
4.109X3D_MetadataSFVec4f Struct Reference . . . . .	720
4.1097. Detailed Description . . . . .	720
4.109X3D_MetadataString Struct Reference . . . . .	721
4.1098. Detailed Description . . . . .	721
4.109X3D_MotorJoint Struct Reference . . . . .	721
4.1099. Detailed Description . . . . .	722
4.110X3D_MovieTexture Struct Reference . . . . .	723
4.1100. Detailed Description . . . . .	723
4.110X3D_MultiTexture Struct Reference . . . . .	724
4.1101. Detailed Description . . . . .	724
4.110X3D_MultiTextureCoordinate Struct Reference . . . . .	724
4.1102. Detailed Description . . . . .	725
4.110X3D_MultiTextureTransform Struct Reference . . . . .	725
4.1103. Detailed Description . . . . .	725
4.110X3D_NavigationInfo Struct Reference . . . . .	725
4.1104. Detailed Description . . . . .	726
4.110X3D_Node Struct Reference . . . . .	726
4.1105. Detailed Description . . . . .	726
4.110X3D_Normal Struct Reference . . . . .	727
4.1106. Detailed Description . . . . .	727
4.110X3D_NormalInterpolator Struct Reference . . . . .	727
4.1107. Detailed Description . . . . .	728
4.110X3D_NurbsCurve Struct Reference . . . . .	728
4.1108. Detailed Description . . . . .	728
4.110X3D_NurbsCurve2D Struct Reference . . . . .	729
4.1109. Detailed Description . . . . .	729

4.111X3D_NurbsOrientationInterpolator Struct Reference . . . . .	729
4.1110. Detailed Description . . . . .	730
4.111X3D_NurbsPatchSurface Struct Reference . . . . .	730
4.1111. Detailed Description . . . . .	731
4.111X3D_NurbsPositionInterpolator Struct Reference . . . . .	731
4.1112. Detailed Description . . . . .	731
4.111X3D_NurbsSet Struct Reference . . . . .	732
4.1113. Detailed Description . . . . .	732
4.111X3D_NurbsSurfaceInterpolator Struct Reference . . . . .	732
4.1114. Detailed Description . . . . .	733
4.111X3D_NurbsSweptSurface Struct Reference . . . . .	733
4.1115. Detailed Description . . . . .	734
4.111X3D_NurbsSwungSurface Struct Reference . . . . .	734
4.1116. Detailed Description . . . . .	734
4.111X3D_NurbsTextureCoordinate Struct Reference . . . . .	735
4.1117. Detailed Description . . . . .	735
4.111X3D_NurbsTrimmedSurface Struct Reference . . . . .	735
4.1118. Detailed Description . . . . .	736
4.111X3D_OpacityMapVolumeStyle Struct Reference . . . . .	736
4.1119. Detailed Description . . . . .	737
4.112X3D_OrientationChaser Struct Reference . . . . .	737
4.1120. Detailed Description . . . . .	737
4.112X3D_OrientationDamper Struct Reference . . . . .	738
4.1121. Detailed Description . . . . .	738
4.112X3D_OrientationInterpolator Struct Reference . . . . .	739
4.1122. Detailed Description . . . . .	739
4.112X3D_OrthoViewpoint Struct Reference . . . . .	739
4.1123. Detailed Description . . . . .	740
4.112X3D_OSC_Sensor Struct Reference . . . . .	740
4.1124. Detailed Description . . . . .	741

4.112 <del>X</del> 3D_PackagedShader Struct Reference . . . . .	741
4.1125. Detailed Description . . . . .	742
4.112 <del>X</del> 3D_ParticleSystem Struct Reference . . . . .	742
4.1126. Detailed Description . . . . .	743
4.112X3D_PickableGroup Struct Reference . . . . .	743
4.1127. Detailed Description . . . . .	743
4.112 <del>X</del> 3D_PixelTexture Struct Reference . . . . .	744
4.1128. Detailed Description . . . . .	744
4.112 <del>X</del> 3D_PixelTexture3D Struct Reference . . . . .	744
4.1129. Detailed Description . . . . .	745
4.113 <del>X</del> 3D_PlaneSensor Struct Reference . . . . .	745
4.1130. Detailed Description . . . . .	746
4.113X3D_PointEmitter Struct Reference . . . . .	746
4.1131. Detailed Description . . . . .	746
4.113 <del>X</del> 3D_PointLight Struct Reference . . . . .	747
4.1132. Detailed Description . . . . .	747
4.113 <del>X</del> 3D_PointPickSensor Struct Reference . . . . .	747
4.1133. Detailed Description . . . . .	748
4.113 <del>X</del> 3D_PointSet Struct Reference . . . . .	748
4.1134. Detailed Description . . . . .	749
4.113 <del>X</del> 3D_Polyline2D Struct Reference . . . . .	749
4.1135. Detailed Description . . . . .	749
4.113 <del>X</del> 3D_PolylineEmitter Struct Reference . . . . .	750
4.1136. Detailed Description . . . . .	750
4.113X3D_Polypoint2D Struct Reference . . . . .	750
4.1137. Detailed Description . . . . .	751
4.113 <del>X</del> 3D_PolyRep Struct Reference . . . . .	751
4.1138. Detailed Description . . . . .	751
4.113 <del>X</del> 3D_PositionChaser Struct Reference . . . . .	752
4.1139. Detailed Description . . . . .	752

4.11403D_PositionChaser2D Struct Reference . . . . .	753
4.1140. Detailed Description . . . . .	753
4.11413D_PositionDamper Struct Reference . . . . .	754
4.1141. Detailed Description . . . . .	754
4.11423D_PositionDamper2D Struct Reference . . . . .	755
4.1142. Detailed Description . . . . .	755
4.11433D_PositionInterpolator Struct Reference . . . . .	756
4.1143. Detailed Description . . . . .	756
4.11443D_PositionInterpolator2D Struct Reference . . . . .	756
4.1144. Detailed Description . . . . .	757
4.11453D_PrimitivePickSensor Struct Reference . . . . .	757
4.1145. Detailed Description . . . . .	757
4.11463D_ProgramShader Struct Reference . . . . .	758
4.1146. Detailed Description . . . . .	758
4.11473D_ProjectionVolumeStyle Struct Reference . . . . .	758
4.1147. Detailed Description . . . . .	759
4.11483D_Proto Struct Reference . . . . .	759
4.1148. Detailed Description . . . . .	760
4.11493D_ProximitySensor Struct Reference . . . . .	760
4.1149. Detailed Description . . . . .	760
4.11503D_QuadSet Struct Reference . . . . .	761
4.1150. Detailed Description . . . . .	761
4.11513D_ReceiverPdu Struct Reference . . . . .	761
4.1151. Detailed Description . . . . .	762
4.11523D_Rectangle2D Struct Reference . . . . .	763
4.1152. Detailed Description . . . . .	763
4.11533D_RigidBody Struct Reference . . . . .	763
4.1153. Detailed Description . . . . .	764
4.11543D_RigidBodyCollection Struct Reference . . . . .	764
4.1154. Detailed Description . . . . .	765

4.115X3D_ScalarChaser Struct Reference . . . . .	765
4.1155. Detailed Description . . . . .	766
4.115X3D_ScalarDamper Struct Reference . . . . .	766
4.1156. Detailed Description . . . . .	767
4.115X3D_ScalarInterpolator Struct Reference . . . . .	767
4.1157. Detailed Description . . . . .	767
4.115X3D_ScreenFontStyle Struct Reference . . . . .	768
4.1158. Detailed Description . . . . .	768
4.115X3D_ScreenGroup Struct Reference . . . . .	768
4.1159. Detailed Description . . . . .	769
4.116X3D_Script Struct Reference . . . . .	769
4.1160. Detailed Description . . . . .	769
4.116X3D_SegmentedVolumeData Struct Reference . . . . .	770
4.1161. Detailed Description . . . . .	770
4.116X3D_ShadedVolumeStyle Struct Reference . . . . .	770
4.1162. Detailed Description . . . . .	771
4.116X3D_ShaderPart Struct Reference . . . . .	771
4.1163. Detailed Description . . . . .	771
4.116X3D_ShaderProgram Struct Reference . . . . .	772
4.1164. Detailed Description . . . . .	772
4.116X3D_Shape Struct Reference . . . . .	772
4.1165. Detailed Description . . . . .	773
4.116X3D_SignalPdu Struct Reference . . . . .	773
4.1166. Detailed Description . . . . .	774
4.116X3D_SilhouetteEnhancementVolumeStyle Struct Reference . . . . .	774
4.1167. Detailed Description . . . . .	775
4.116X3D_SingleAxisHingeJoint Struct Reference . . . . .	775
4.1168. Detailed Description . . . . .	775
4.116X3D_SliderJoint Struct Reference . . . . .	776
4.1169. Detailed Description . . . . .	776

4.117 <del>X</del> 3D_Sound Struct Reference . . . . .	777
4.1170. Detailed Description . . . . .	777
4.117 <del>X</del> 3D_Sphere Struct Reference . . . . .	777
4.1171. Detailed Description . . . . .	778
4.117 <del>X</del> 3D_SphereSensor Struct Reference . . . . .	778
4.1172. Detailed Description . . . . .	779
4.117 <del>X</del> 3D_SplinePositionInterpolator Struct Reference . . . . .	779
4.1173. Detailed Description . . . . .	779
4.117 <del>X</del> 3D_SplinePositionInterpolator2D Struct Reference . . . . .	780
4.1174. Detailed Description . . . . .	780
4.117 <del>X</del> 3D_SplineScalarInterpolator Struct Reference . . . . .	780
4.1175. Detailed Description . . . . .	781
4.117 <del>X</del> 3D_SpotLight Struct Reference . . . . .	781
4.1176. Detailed Description . . . . .	782
4.117 <del>X</del> 3D_SquadOrientationInterpolator Struct Reference . . . . .	782
4.1177. Detailed Description . . . . .	782
4.117 <del>X</del> 3D_StaticGroup Struct Reference . . . . .	783
4.1178. Detailed Description . . . . .	783
4.117 <del>X</del> 3D_StringSensor Struct Reference . . . . .	783
4.1179. Detailed Description . . . . .	784
4.118 <del>X</del> 3D_SurfaceEmitter Struct Reference . . . . .	784
4.1180. Detailed Description . . . . .	785
4.118 <del>X</del> 3D_Switch Struct Reference . . . . .	785
4.1181. Detailed Description . . . . .	785
4.118 <del>X</del> 3D_Teapot Struct Reference . . . . .	786
4.1182. Detailed Description . . . . .	786
4.118 <del>X</del> 3D_TexCoordChaser2D Struct Reference . . . . .	786
4.1183. Detailed Description . . . . .	787
4.118 <del>X</del> 3D_TexCoordDamper2D Struct Reference . . . . .	787
4.1184. Detailed Description . . . . .	788

4.118 <del>X</del> 3D_Text Struct Reference . . . . .	788
4.1185. Detailed Description . . . . .	788
4.118 <del>X</del> 3D_TextureBackground Struct Reference . . . . .	789
4.1186. Detailed Description . . . . .	789
4.118 <del>X</del> 3D_TextureCoordinate Struct Reference . . . . .	790
4.1187. Detailed Description . . . . .	790
4.118 <del>X</del> 3D_TextureCoordinate3D Struct Reference . . . . .	790
4.1188. Detailed Description . . . . .	791
4.118 <del>X</del> 3D_TextureCoordinate4D Struct Reference . . . . .	791
4.1189. Detailed Description . . . . .	791
4.119 <del>X</del> 3D_TextureCoordinateGenerator Struct Reference . . . . .	791
4.1190. Detailed Description . . . . .	792
4.119 <del>X</del> 3D_TextureProperties Struct Reference . . . . .	792
4.1191. Detailed Description . . . . .	792
4.119 <del>X</del> 3D_TextureTransform Struct Reference . . . . .	793
4.1192. Detailed Description . . . . .	793
4.119 <del>X</del> 3D_TextureTransform3D Struct Reference . . . . .	793
4.1193. Detailed Description . . . . .	794
4.119 <del>X</del> 3D_TextureTransformMatrix3D Struct Reference . . . . .	794
4.1194. Detailed Description . . . . .	794
4.119 <del>X</del> 3D_TimeSensor Struct Reference . . . . .	794
4.1195. Detailed Description . . . . .	795
4.119 <del>X</del> 3D_TimeTrigger Struct Reference . . . . .	795
4.1196. Detailed Description . . . . .	796
4.119 <del>X</del> 3D_ToneMappedVolumeStyle Struct Reference . . . . .	796
4.1197. Detailed Description . . . . .	796
4.119 <del>X</del> 3D_TouchSensor Struct Reference . . . . .	797
4.1198. Detailed Description . . . . .	797
4.119 <del>X</del> 3D_TrackingSensor Struct Reference . . . . .	797
4.1199. Detailed Description . . . . .	798



4.120 <del>X</del> 3D_Transform Struct Reference . . . . .	798
4.1200. Detailed Description . . . . .	799
4.120 <del>X</del> 3D_TransformSensor Struct Reference . . . . .	799
4.1201. Detailed Description . . . . .	800
4.120 <del>X</del> 3D_TransmitterPdu Struct Reference . . . . .	800
4.1202. Detailed Description . . . . .	801
4.120 <del>X</del> 3D_TriangleFanSet Struct Reference . . . . .	801
4.1203. Detailed Description . . . . .	802
4.120 <del>X</del> 3D_TriangleSet Struct Reference . . . . .	802
4.1204. Detailed Description . . . . .	802
4.120 <del>X</del> 3D_TriangleSet2D Struct Reference . . . . .	803
4.1205. Detailed Description . . . . .	803
4.120 <del>X</del> 3D_TriangleStripSet Struct Reference . . . . .	803
4.1206. Detailed Description . . . . .	804
4.120 <del>X</del> 3D_TwoSidedMaterial Struct Reference . . . . .	804
4.1207. Detailed Description . . . . .	805
4.120 <del>X</del> 3D_UniversalJoint Struct Reference . . . . .	805
4.1208. Detailed Description . . . . .	806
4.120 <del>X</del> 3D_Viewpoint Struct Reference . . . . .	806
4.1209. Detailed Description . . . . .	806
4.121 <del>X</del> 3D_ViewpointGroup Struct Reference . . . . .	807
4.1210. Detailed Description . . . . .	807
4.121 <del>X</del> 3D_Viewport Struct Reference . . . . .	807
4.1211. Detailed Description . . . . .	808
4.121 <del>X</del> 3D_Virt Struct Reference . . . . .	808
4.1212. Detailed Description . . . . .	808
4.121 <del>X</del> 3D_VisibilitySensor Struct Reference . . . . .	809
4.1213. Detailed Description . . . . .	809
4.121 <del>X</del> 3D_VolumeData Struct Reference . . . . .	809
4.1214. Detailed Description . . . . .	810

4.121	X3D_VolumeEmitter Struct Reference . . . . .	810
4.1215	Detailed Description . . . . .	811
4.121	X3D_VolumePickSensor Struct Reference . . . . .	811
4.1216	Detailed Description . . . . .	811
4.121	X3D_WindPhysicsModel Struct Reference . . . . .	812
4.1217	Detailed Description . . . . .	812
4.121	X3D_WorldInfo Struct Reference . . . . .	812
4.1218	Detailed Description . . . . .	813
4.121	org.web3d.x3d.sai.X3DAppearanceChildNode Interface Reference . . . . .	813
4.1219	Detailed Description . . . . .	813
4.122	org.web3d.x3d.sai.X3DAppearanceNode Interface Reference . . . . .	813
4.1220	Detailed Description . . . . .	813
4.122	org.web3d.x3d.sai.X3DAudioClipNode Interface Reference . . . . .	814
4.1221	Detailed Description . . . . .	814
4.122	org.web3d.x3d.sai.X3DBackgroundNode Interface Reference . . . . .	814
4.1222	Detailed Description . . . . .	815
4.122	org.web3d.x3d.sai.X3DBindableNode Interface Reference . . . . .	815
4.1223	Detailed Description . . . . .	815
4.122	org.web3d.x3d.sai.X3DBoundedObject Interface Reference . . . . .	816
4.1224	Detailed Description . . . . .	816
4.122	org.web3d.x3d.sai.X3DChildNode Interface Reference . . . . .	816
4.1225	Detailed Description . . . . .	817
4.122	org.web3d.x3d.sai.X3DColorNode Interface Reference . . . . .	817
4.1226	Detailed Description . . . . .	817
4.122	org.web3d.x3d.sai.X3DComponent Interface Reference . . . . .	817
4.1227	Detailed Description . . . . .	818
4.122	org.web3d.x3d.sai.X3DComposedGeometryNode Interface Reference . . . . .	818
4.1228	Detailed Description . . . . .	819
4.122	org.web3d.x3d.sai.X3DCoordinateNode Interface Reference . . . . .	819
4.1229	Detailed Description . . . . .	819

4.1230	org.web3d.x3d.sai.X3DDragSensorNode Interface Reference . . . . .	819
4.1230	Detailed Description . . . . .	820
4.1231	org.web3d.x3d.sai.X3DEnvironmentalSensorNode Interface Reference . . . . .	820
4.1231	Detailed Description . . . . .	820
4.1232	org.web3d.x3d.sai.X3DException Class Reference . . . . .	821
4.1232	Detailed Description . . . . .	821
4.1233	org.web3d.x3d.sai.X3DExecutionContext Interface Reference . . . . .	822
4.1233	Detailed Description . . . . .	823
4.1234	org.web3d.x3d.sai.X3DExternProtoDeclaration Interface Reference . . . . .	823
4.1234	Detailed Description . . . . .	823
4.1235	org.web3d.x3d.sai.X3DField Interface Reference . . . . .	823
4.1235	Detailed Description . . . . .	824
4.1236	org.web3d.x3d.sai.X3DFieldDefinition Interface Reference . . . . .	825
4.1236	Detailed Description . . . . .	825
4.1237	org.web3d.x3d.sai.X3DFieldEvent Class Reference . . . . .	825
4.1237	Detailed Description . . . . .	825
4.1238	org.web3d.x3d.sai.X3DFieldEventListener Interface Reference . . . . .	826
4.1238	Detailed Description . . . . .	826
4.1239	org.web3d.x3d.sai.X3DFieldTypes Interface Reference . . . . .	826
4.1239	Detailed Description . . . . .	827
4.1240	org.web3d.x3d.sai.X3DFontStyleNode Interface Reference . . . . .	827
4.1240	Detailed Description . . . . .	828
4.1241	org.web3d.x3d.sai.X3DGeometricPropertyNode Interface Reference . . . . .	828
4.1241	Detailed Description . . . . .	828
4.1242	org.web3d.x3d.sai.X3DGeometryNode Interface Reference . . . . .	828
4.1242	Detailed Description . . . . .	829
4.1243	org.web3d.x3d.sai.X3DGroupingNode Interface Reference . . . . .	829
4.1243	Detailed Description . . . . .	829
4.1244	org.web3d.x3d.sai.X3DInfoNode Interface Reference . . . . .	829
4.1244	Detailed Description . . . . .	830

4.1245	rg.web3d.x3d.sai.X3DInterpolatorNode Interface Reference . . . . .	830
4.1245	Detailed Description . . . . .	830
4.1246	rg.web3d.x3d.sai.X3DKeyDeviceSensorNode Interface Reference . . . . .	830
4.1246	Detailed Description . . . . .	831
4.1247	rg.web3d.x3d.sai.X3DLightNode Interface Reference . . . . .	831
4.1247	Detailed Description . . . . .	831
4.1248	rg.web3d.x3d.sai.X3DMaterialNode Interface Reference . . . . .	832
4.1248	Detailed Description . . . . .	832
4.1249	rg.web3d.x3d.sai.X3DMetadataObject Interface Reference . . . . .	832
4.1249	Detailed Description . . . . .	832
4.1250	rg.web3d.x3d.sai.X3DNetworkSensorNode Interface Reference . . . . .	833
4.1250	Detailed Description . . . . .	833
4.1251	rg.web3d.x3d.sai.X3DNode Interface Reference . . . . .	833
4.1251	Detailed Description . . . . .	834
4.1252	rg.web3d.x3d.sai.X3DNodeTypes Interface Reference . . . . .	834
4.1252	Detailed Description . . . . .	835
4.1253	rg.web3d.x3d.sai.X3DNormalNode Interface Reference . . . . .	835
4.1253	Detailed Description . . . . .	836
4.1254	rg.web3d.x3d.sai.X3DParametricGeometryNode Interface Reference . . . . .	836
4.1254	Detailed Description . . . . .	836
4.1255	rg.web3d.x3d.sai.X3DPerFrameObserverScript Interface Reference . . . . .	836
4.1255	Detailed Description . . . . .	837
4.1256	rg.web3d.x3d.sai.X3DPointingDeviceSensorNode Interface Reference . . . . .	837
4.1256	Detailed Description . . . . .	837
4.1257	rg.web3d.x3d.sai.X3DProtoDeclaration Interface Reference . . . . .	837
4.1257	Detailed Description . . . . .	838
4.1258	rg.web3d.x3d.sai.X3DProtoInstance Interface Reference . . . . .	838
4.1258	Detailed Description . . . . .	838
4.1259	rg.web3d.x3d.sai.X3DRoute Interface Reference . . . . .	838
4.1259	Detailed Description . . . . .	839

4.1260	org.web3d.x3d.sai.X3DScene Interface Reference . . . . .	839
4.1260.1	Detailed Description . . . . .	839
4.1261	org.web3d.x3d.sai.X3DScriptImplementation Interface Reference . . . . .	840
4.1261.1	Detailed Description . . . . .	840
4.1262	org.web3d.x3d.sai.X3DScriptNode Interface Reference . . . . .	840
4.1262.1	Detailed Description . . . . .	840
4.1263	org.web3d.x3d.sai.X3DSensorNode Interface Reference . . . . .	841
4.1263.1	Detailed Description . . . . .	841
4.1264	org.web3d.x3d.sai.X3DSequencerNode Interface Reference . . . . .	841
4.1264.1	Detailed Description . . . . .	842
4.1265	org.web3d.x3d.sai.X3DShapeNode Interface Reference . . . . .	842
4.1265.1	Detailed Description . . . . .	842
4.1266	org.web3d.x3d.sai.X3DSoundNode Interface Reference . . . . .	842
4.1266.1	Detailed Description . . . . .	843
4.1267	org.web3d.x3d.sai.X3DSoundSourceNode Interface Reference . . . . .	843
4.1267.1	Detailed Description . . . . .	843
4.1268	org.web3d.x3d.sai.X3DTextNode Interface Reference . . . . .	843
4.1268.1	Detailed Description . . . . .	844
4.1269	org.web3d.x3d.sai.X3DTexture2DNode Interface Reference . . . . .	844
4.1269.1	Detailed Description . . . . .	844
4.1270	org.web3d.x3d.sai.X3DTextureCoordinateNode Interface Reference . . . . .	844
4.1270.1	Detailed Description . . . . .	845
4.1271	org.web3d.x3d.sai.X3DTextureNode Interface Reference . . . . .	845
4.1271.1	Detailed Description . . . . .	845
4.1272	org.web3d.x3d.sai.X3DTextureTransform2DNode Interface Reference . . . . .	845
4.1272.1	Detailed Description . . . . .	846
4.1273	org.web3d.x3d.sai.X3DTextureTransformNode Interface Reference . . . . .	846
4.1273.1	Detailed Description . . . . .	846
4.1274	org.web3d.x3d.sai.X3DTimeDependentNode Interface Reference . . . . .	847
4.1274.1	Detailed Description . . . . .	847

4.1275	rg.web3d.x3d.sai.X3DTouchSensorNode Interface Reference . . . . .	848
4.1275.	Detailed Description . . . . .	848
4.1276	rg.web3d.x3d.sai.X3DTriggerNode Interface Reference . . . . .	848
4.1276.	Detailed Description . . . . .	849
4.1277	rg.web3d.x3d.sai.X3DUrlObject Interface Reference . . . . .	849
4.1277.	Detailed Description . . . . .	849
4.1278	ml_user_data Struct Reference . . . . .	849
4.1278.	Detailed Description . . . . .	850
4.1279	XY Struct Reference . . . . .	850
4.1279.	Detailed Description . . . . .	850
4.1280	ip64_internal Struct Reference . . . . .	850
4.1280.	Detailed Description . . . . .	850
4.1281	ip_fileinfo Struct Reference . . . . .	851
4.1281.	Detailed Description . . . . .	851
4.1282	lib_filefunc64_32_def_s Struct Reference . . . . .	851
4.1282.	Detailed Description . . . . .	851
4.1283	lib_filefunc64_def_s Struct Reference . . . . .	851
4.1283.	Detailed Description . . . . .	852
4.1284	lib_filefunc_def_s Struct Reference . . . . .	852
4.1284.	Detailed Description . . . . .	852
4.1285	one Struct Reference . . . . .	852
4.1285.	Detailed Description . . . . .	852

# 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:

_BrowserNative . . . . .	51
_cd_list_t . . . . .	51
_CRnodeStruct . . . . .	52
_FW_PluginInstance . . . . .	52
_GLwDrawingAreaClassPart . . . . .	53
_GLwDrawingAreaClassRec . . . . .	53
_GLwDrawingAreaRec . . . . .	53
_intX3D_MFBool . . . . .	54
_intX3D_MFColor . . . . .	54
_intX3D_MFColorRGBA . . . . .	54
_intX3D_MFFloat . . . . .	55
_intX3D_MFImage . . . . .	55
_intX3D_MFInt32 . . . . .	55
_intX3D_MFNode . . . . .	56
_intX3D_MFRotation . . . . .	56
_intX3D_MFString . . . . .	56
_intX3D_MFTime . . . . .	57
_intX3D_MFVec2d . . . . .	57
_intX3D_MFVec2f . . . . .	57
_intX3D_MFVec3d . . . . .	58
_intX3D_MFVec3f . . . . .	58
_intX3D_SFBool . . . . .	58
_intX3D_SFColor . . . . .	59
_intX3D_SFColorRGBA . . . . .	59
_intX3D_SFFloat . . . . .	59
_intX3D_SFImage . . . . .	60
_intX3D_SFInt32 . . . . .	60
_intX3D_SFNode . . . . .	60
_intX3D_SFRotation . . . . .	61
_intX3D_SFString . . . . .	61
_intX3D_SFTime . . . . .	61
_intX3D_SFVec2d . . . . .	62
_intX3D_SFVec2f . . . . .	62
_intX3D_SFVec3d . . . . .	62
_intX3D_SFVec3f . . . . .	63

_intX3DEventIn	63
_NPByteRange	63
_NPEmbedPrint	64
_NPFullPrint	64
_NPImageExpose	65
_NPNetscapeFuncs	65
_NPP	66
_NPPluginFuncs	67
_NPPrint	67
_NPRect	68
_NPSavedData	68
_NPSize	68
_NPStream	69
_NPString	69
_NPVariant	69
_NPWindow	70
_s_list_t	70
freeWRLSAI_cpp::_SAIParameter	71
_SFColorNative	71
_SFColorRGBANative	71
_SFImageNative	72
_SFNodeNative	72
_SFRotationNative	72
_SFVec2fNative	73
_SFVec3dNative	73
_SFVec3fNative	73
_SFVec4dNative	74
_SFVec4fNative	74
_urlRequest	74
_X3DNode	75
ActiveRegion	75
anyVrml	76
ArcTessellator	79
ArgListType	80
Atlas	80
AtlasEntry	80
AtlasEntrySet	81
AtlasFont	81
Backend	82
vrml.BaseNode	83
vrml.node.Node	353
vrml.node.Script	493
bezierPatch	86
bezierPatchMesh	87
Bin	87
bindablestack	88
block	88
Breakpt	89
brotoDefpair	89
brotoIS	90
brotoRoute	90
brouteEnd	90
org.web3d.x3d.sai.Browser	91
org.web3d.x3d.sai.ExternalBrowser	219
sai.FreeWRLBrowser	226
vrml.Browser	92
sai.BrowserFactory	95
org.web3d.x3d.sai.BrowserFactoryImpl	95

vrml.external.BrowserGlobals . . . . .	96
sai.BrowserGlobals . . . . .	96
org.web3d.x3d.sai.BrowserInterface . . . . .	97
sai.FreeWRLBrowser . . . . .	226
vrml.external.BrowserInterface . . . . .	97
vrml.external.Browser . . . . .	92
Buffer . . . . .	99
BUTitem . . . . .	99
CachedVertex . . . . .	100
CachingEvaluator . . . . .	100
BasicCurveEvaluator . . . . .	84
OpenGLCurveEvaluator . . . . .	436
BasicSurfaceEvaluator . . . . .	85
OpenGLSurfaceEvaluator . . . . .	438
cbDataExactName . . . . .	101
cbDataRootNameAndRouteDir . . . . .	101
CdIIFreeWRL . . . . .	102
chardata . . . . .	103
chaser_ptrs . . . . .	103
cline . . . . .	104
Cloneable . . . . .	
vrml.Event . . . . .	195
vrml.Field . . . . .	221
vrml.ConstField . . . . .	108
vrml.ConstMField . . . . .	110
vrml.field.ConstMFColor . . . . .	108
vrml.field.ConstMFFloat . . . . .	109
vrml.field.ConstMFInt32 . . . . .	111
vrml.field.ConstMFNode . . . . .	112
vrml.field.ConstMFRotation . . . . .	113
vrml.field.ConstMFString . . . . .	114
vrml.field.ConstMFTime . . . . .	114
vrml.field.ConstMFVec2f . . . . .	115
vrml.field.ConstMFVec3f . . . . .	116
vrml.field.ConstSFBool . . . . .	117
vrml.field.ConstSFColor . . . . .	117
vrml.field.ConstSFFloat . . . . .	118
vrml.field.ConstSFImage . . . . .	119
vrml.field.ConstSFInt32 . . . . .	120
vrml.field.ConstSFNode . . . . .	120
vrml.field.ConstSFRotation . . . . .	121
vrml.field.ConstSFString . . . . .	122
vrml.field.ConstSFTime . . . . .	122
vrml.field.ConstSFVec2f . . . . .	123
vrml.field.ConstSFVec3f . . . . .	124
vrml.field.SFBool . . . . .	498
vrml.field.SFColor . . . . .	500
vrml.field.SFFloat . . . . .	502
vrml.field.SFImage . . . . .	503
vrml.field.SFInt32 . . . . .	505
vrml.field.SFNode . . . . .	507
vrml.field.SFRotation . . . . .	509
vrml.field.SFString . . . . .	510
vrml.field.SFTime . . . . .	511
vrml.field.SFVec2f . . . . .	514
vrml.field.SFVec3f . . . . .	517
vrml.MField . . . . .	326

vrml.field.MFColor . . . . .	320
vrml.field.MFFloat . . . . .	324
vrml.field.MFInt32 . . . . .	328
vrml.field.MFNode . . . . .	330
vrml.field.MFRotation . . . . .	332
vrml.field.MFString . . . . .	333
vrml.field.MFTime . . . . .	334
vrml.field.MFVec2f . . . . .	337
vrml.field.MFVec3f . . . . .	339
coded_block_pattern_entry . . . . .	104
colorScheme . . . . .	104
command . . . . .	105
org.web3d.x3d.sai.ComponentInfo . . . . .	105
sai.FWComponentInfo . . . . .	239
connection_info_struct . . . . .	106
consoleLine . . . . .	107
contenttype . . . . .	124
contenttype_captiontext . . . . .	125
contenttype_e3dmouse . . . . .	125
contenttype_layer . . . . .	126
contenttype_multitouch . . . . .	126
contenttype_orientation . . . . .	126
contenttype_quadrant . . . . .	127
contenttype_scene . . . . .	127
contenttype_splitter . . . . .	127
contenttype_statusbar . . . . .	128
contenttype_stereo_anaglyph . . . . .	128
contenttype_stereo_shutter . . . . .	128
contenttype_stereo_sidebyside . . . . .	129
contenttype_stereo_updown . . . . .	129
contenttype_switch . . . . .	129
contenttype_textpanel . . . . .	130
contenttype_texturegrid . . . . .	131
CPlugin . . . . .	132
CR_RegStruct . . . . .	133
CRjsnameStruct . . . . .	133
CRscriptStruct . . . . .	134
CRStruct . . . . .	134
cson_array . . . . .	135
cson_buffer . . . . .	136
cson_data_source_StringSource_ . . . . .	138
cson_kvp . . . . .	139
cson_kvp_list . . . . .	139
cson_object . . . . .	140
cson_object_iterator . . . . .	141
cson_output_opt . . . . .	141
cson_parse_info . . . . .	143
cson_parse_opt . . . . .	144
cson_parser . . . . .	144
cson_string . . . . .	145
cson_value . . . . .	146
cson_value_api . . . . .	148
cson_value_list . . . . .	149
curfile64_info . . . . .	150
currayhit . . . . .	150
Curve . . . . .	151
curveEvalMachine . . . . .	151
Curvelist . . . . .	152

damper_ptr	152
datChnk	153
dct_dc_size_entry	153
DDS_header	153
DdsLoadInfo	154
Dict	155
DictNode	155
directedLine	156
DisplayList	157
draw_call_params	159
duk_bigint	159
duk_compile_raw_args	159
duk_compiler_stkstate	160
duk_decode_context	160
duk_encode_context	161
duk_exp_limits	161
duk_id_lookup_result	161
duk_numconv_stringify_ctx	162
duk_objlit_state	162
duk_pcall_prop_args	163
duk_re_disjunction_info	163
duk_transform_context	163
duk_activation	164
duk_bitdecoder_ctx	164
duk_bitencoder_ctx	164
duk_breakpoint	165
duk_bufwriter_ctx	165
duk_catcher	166
duk_compiler_ctx	166
duk_compiler_func	167
duk_compiler_instr	168
duk_double_union	168
duk_function_list_entry	169
duk_harray	169
duk_hbuffer	169
duk_hbuffer_dynamic	170
duk_hbuffer_external	170
duk_hbuffer_fixed	170
duk_hbufobj	171
duk_hcompfunc	171
duk_heap	172
duk_heaphdr	172
duk_heaphdr_string	173
duk_hnatfunc	173
duk_hobject	174
duk_hstring	174
duk_hstring_external	174
duk_hthread	175
duk_internal_thread_state	176
duk_ispec	176
duk_ivalue	176
duk_jmpbuf	177
duk_json_dec_ctx	177
duk_json_enc_ctx	178
duk_labelinfo	178
duk_lexer_codepoint	179
duk_lexer_ctx	179
duk_lexer_point	179

duk_ljstate . . . . .	180
duk_memory_functions . . . . .	180
duk_number_list_entry . . . . .	181
duk_propaccessor . . . . .	181
duk_propdesc . . . . .	181
duk_propvalue . . . . .	182
duk_re_compiler_ctx . . . . .	182
duk_re_matcher_ctx . . . . .	183
duk_re_token . . . . .	183
duk_strcache . . . . .	184
duk_strtab_entry . . . . .	184
duk_thread_state . . . . .	184
duk_time_components . . . . .	185
duk_token . . . . .	185
duk_tval_unused . . . . .	186
EAI_Extra_Data . . . . .	186
EAI_ListenerStruct . . . . .	187
vrml.external.FreeWRLEAI.EAIAsyncMessage . . . . .	187
sai.eai.EAIAsyncMessage . . . . .	187
vrml.external.FreeWRLEAI.EAIAsyncQueue . . . . .	188
sai.eai.EAIAsyncQueue . . . . .	188
sai.eai.EAIMessage . . . . .	191
vrml.external.FreeWRLEAI.EAIMessage . . . . .	191
EAINodeIndexStruct . . . . .	191
EAINodeParams . . . . .	192
sai.eai.EAIoutQueue . . . . .	192
vrml.external.FreeWRLEAI.EAIoutQueue . . . . .	193
ECMAValueStruct . . . . .	194
EdgePair . . . . .	195
vrml.external.field.EventIn . . . . .	196
vrml.external.field.EventInMFColor . . . . .	197
vrml.external.field.EventInMFFloat . . . . .	197
vrml.external.field.EventInMFInt32 . . . . .	198
vrml.external.field.EventInMFNode . . . . .	198
vrml.external.field.EventInMFRotation . . . . .	199
vrml.external.field.EventInMFString . . . . .	199
vrml.external.field.EventInMFVec2f . . . . .	200
vrml.external.field.EventInMFVec3f . . . . .	200
vrml.external.field.EventInSFBool . . . . .	201
vrml.external.field.EventInSFColor . . . . .	201
vrml.external.field.EventInSFFloat . . . . .	202
vrml.external.field.EventInSFImage . . . . .	202
vrml.external.field.EventInSFInt32 . . . . .	203
vrml.external.field.EventInSFNode . . . . .	203
vrml.external.field.EventInSFRotation . . . . .	204
vrml.external.field.EventInSFString . . . . .	204
vrml.external.field.EventInSFTime . . . . .	205
vrml.external.field.EventInSFVec2f . . . . .	205
vrml.external.field.EventInSFVec3f . . . . .	206
EventListener . . . . .	
org.web3d.x3d.sai.BrowserListener . . . . .	98
EventListener . . . . .	
org.web3d.x3d.sai.X3DFieldEventListener . . . . .	826
EventObject . . . . .	
org.web3d.x3d.sai.BrowserEvent . . . . .	94
org.web3d.x3d.sai.X3DFieldEvent . . . . .	825
vrml.external.field.EventOut . . . . .	206
vrml.external.field.EventOutMField . . . . .	209

vrml.external.field.EventOutMFColor . . . . .	208
vrml.external.field.EventOutMFFloat . . . . .	208
vrml.external.field.EventOutMFInt32 . . . . .	210
vrml.external.field.EventOutMFNode . . . . .	210
vrml.external.field.EventOutMFRotation . . . . .	211
vrml.external.field.EventOutMFString . . . . .	211
vrml.external.field.EventOutMFVec2f . . . . .	212
vrml.external.field.EventOutMFVec3f . . . . .	213
vrml.external.field.EventOutSFBool . . . . .	214
vrml.external.field.EventOutSFColor . . . . .	214
vrml.external.field.EventOutSFFloat . . . . .	215
vrml.external.field.EventOutSFImage . . . . .	215
vrml.external.field.EventOutSFInt32 . . . . .	216
vrml.external.field.EventOutSFNode . . . . .	216
vrml.external.field.EventOutSFRotation . . . . .	217
vrml.external.field.EventOutSFString . . . . .	217
vrml.external.field.EventOutSFTime . . . . .	218
vrml.external.field.EventOutSFVec2f . . . . .	218
vrml.external.field.EventOutSFVec3f . . . . .	219
vrml.external.field.EventOutObserver . . . . .	213
Exception	
vrml.InvalidVRMLSyntaxException . . . . .	301
vrml.InvalidX3DSyntaxException . . . . .	303
exception	
freeWRLSAI_cpp::saiException . . . . .	487
freeWRLSAI_cpp::browserNotSharedException . . . . .	98
freeWRLSAI_cpp::connectionException . . . . .	107
freeWRLSAI_cpp::disposedException . . . . .	157
freeWRLSAI_cpp::invalidBrowserException . . . . .	284
freeWRLSAI_cpp::invalidExecutionContextException . . . . .	289
freeWRLSAI_cpp::invalidFieldException . . . . .	291
freeWRLSAI_cpp::InvalidReadableFieldException . . . . .	297
freeWRLSAI_cpp::InvalidWritableFieldException . . . . .	301
freeWRLSAI_cpp::invalidNodeException . . . . .	294
freeWRLSAI_cpp::insufficientCapabilitiesException . . . . .	282
freeWRLSAI_cpp::invalidAccessTypeException . . . . .	284
freeWRLSAI_cpp::InvalidReadableFieldException . . . . .	297
freeWRLSAI_cpp::InvalidWritableFieldException . . . . .	301
freeWRLSAI_cpp::invalidDocumentException . . . . .	285
freeWRLSAI_cpp::invalidImportException . . . . .	293
freeWRLSAI_cpp::invalidOperationTimingException . . . . .	296
freeWRLSAI_cpp::invalidUrlException . . . . .	299
freeWRLSAI_cpp::invalidX3DException . . . . .	302
freeWRLSAI_cpp::nodeInUseException . . . . .	355
freeWRLSAI_cpp::nodeUnavailableException . . . . .	356
freeWRLSAI_cpp::noSuchBrowserException . . . . .	357
freeWRLSAI_cpp::notSupportedException . . . . .	358
freeWRLSAI_cpp::saiCustomException . . . . .	486
freeWRLSAI_cpp::urlUnavailableException . . . . .	561
extrusion . . . . .	220
FaceCount . . . . .	220
FieldDecl . . . . .	222
vrml.external.field.FieldTypes . . . . .	222
file_in_zip64_read_info_s . . . . .	223
FirstStruct . . . . .	223
Flist . . . . .	224
flychord . . . . .	225
fmtChnk . . . . .	225

freewrl_params . . . . .	226
sai.FreeWRLBrowserInfo . . . . .	228
sai.FreeWRLRendererInfo . . . . .	235
ftype . . . . .	237
fw_MaterialParameters . . . . .	238
FWBITMAPFILEHEADER . . . . .	238
FWBITMAPINFO . . . . .	238
FWBITMAPINFOHEADER . . . . .	239
vrml.FWCreateField . . . . .	240
FWFunctionSpec . . . . .	241
vrml.FWHelper . . . . .	241
vrml.FWJavaScript . . . . .	242
vrml.FWJavaScriptBinding . . . . .	242
sai.FWProfInfo . . . . .	253
FWPropertySpec . . . . .	254
FWRGBQUAD . . . . .	255
FWSNDMSG . . . . .	265
FWTYPE . . . . .	266
FWVAL . . . . .	266
FX . . . . .	267
GLUface . . . . .	267
GLUhalfEdge . . . . .	268
GLUmesh . . . . .	268
GLUtesselator . . . . .	269
GLUvertex . . . . .	270
GLwDrawingAreaCallbackStruct . . . . .	271
GLwDrawingAreaPart . . . . .	271
GoP . . . . .	272
gridBoundaryChain . . . . .	272
Gridline . . . . .	273
GridVertex . . . . .	274
gridWrap . . . . .	274
GUIElement . . . . .	275
GUINamedType . . . . .	275
GUIScreen . . . . .	275
vrml.external.IBrowser . . . . .	276
vrml.external.Browser . . . . .	92
iiiglobal . . . . .	278
IllegalArgumentException . . . . .	
vrml.InvalidEventInException . . . . .	286
vrml.InvalidEventOutException . . . . .	288
vrml.InvalidExposedFieldException . . . . .	290
vrml.InvalidFieldChangeException . . . . .	290
vrml.InvalidFieldException . . . . .	292
vrml.InvalidRouteException . . . . .	298
IMEXPORT . . . . .	280
initialRouteStruct . . . . .	281
intersection_info . . . . .	283
intTableIndex . . . . .	283
ivec2 . . . . .	304
ivec4 . . . . .	304
Jarcloc . . . . .	304
JMATRIX . . . . .	305
JSLoadPropElement . . . . .	305
JSON_config . . . . .	305
JSON_parser_struct . . . . .	308
JSON_value_struct . . . . .	308
key . . . . .	309



keyHit	309
keyval	309
Knotspec	310
Knotvector	311
layout_scale_item	311
layoutmode	312
linkedlist_data_s	312
linkedlist_datablock_internal_s	312
macroblock	313
Maplist	315
matpropstruct	315
org.web3d.x3d.sai.Matrix	316
org.web3d.x3d.sai.Matrix3	316
org.web3d.x3d.sai.Matrix4	317
mb_addr_inc_entry	318
mb_type_entry	318
mode_name	341
monoChain	342
Monotonizer	342
motion_vectors_entry	343
Multi_Any	343
Multi_Bool	343
Multi_Color	344
Multi_ColorRGBA	344
Multi_Double	345
Multi_Float	345
Multi_Int32	345
Multi_Matrix3d	346
Multi_Matrix3f	346
Multi_Matrix4d	347
Multi_Matrix4f	347
Multi_Node	347
Multi_Rotation	348
Multi_String	348
Multi_Time	349
Multi_Vec2d	349
Multi_Vec2f	349
Multi_Vec3d	350
Multi_Vec3f	350
Multi_Vec4d	351
Multi_Vec4f	351
multiTexParams	351
myArgs	352
MyVertex	352
name_num	353
navmode	353
vrml.external.Node	354
nodedistance	355
NPCClass	359
NPObject	360
ScriptablePluginObjectBase	494
BasePlugin	83
nsByteRange	360
nsIFactory	
nsIPluginHostOld	376
nsIPluginOld	409
nsIInputStream	
nsIPluginInputStream	378

nsISupports	
nsIAuthenticationInfo	361
nsICookieStorage	361
nsIFileUtilities	362
nsIHTTPHeaderListener	364
nsIJVMAuthTools	366
nsIPlugin	367
nsIPluginDocument	370
nsIPluginHost	371
nsIPluginInstance	378
nsIPluginInstanceInternal	384
nsIPluginInstanceOld	385
nsIPluginInstanceOwner	390
nsIPluginInstancePeer	392
nsIPluginInstancePeer2	396
nsIPluginInstancePeer2_1_9_1_BRANCH	398
nsIPluginManager	399
nsIPluginManager2	404
nsIPluginStreamInfo	411
nsIPluginStreamListener	412
nsIPluginTag	415
nsIPluginTagInfo	416
nsIPluginTagInfoOld	423
nsIPluginTagInfo2	419
nsIScriptablePlugin	424
nsIWindowlessPluginInstancePeer	425
nsPIPluginInstancePeer	426
nsPluginEmbedPrint	426
nsPluginEvent	427
nsPluginFullPrint	427
nsPluginLogging	428
nsPluginPrint	430
nsPluginRect	430
nsPluginWindow	431
nsPluginNativeWindow	428
nsPluginNativeWindow	428
NurbsTessellator	431
GLUnurbs	268
opened_file	439
orient_XYZA	440
particle	440
Patch	440
Patchlist	441
pBindable	442
pcollision	443
pcommon	443
pComponent_CubeMapTexturing	444
pComponent_EnviroSensor	444
pComponent_Followers	445
pComponent_Geometry3D	445
pComponent_Geospatial	445
pComponent_HAnim	446
pComponent_KeyDevice	446
pComponent_Layering	446
pComponent_Layout	447
pComponent_NURBS	447
pComponent_ParticleSystems	447

pComponent_Picking . . . . .	448
pComponent_ProgrammableShaders . . . . .	448
pComponent_Rendering . . . . .	448
pComponent_RigidBodyPhysics . . . . .	449
pComponent_Shape . . . . .	449
pComponent_Sound . . . . .	449
pComponent_Text . . . . .	450
pComponent_VolumeRendering . . . . .	451
pConsoleMessage . . . . .	451
pCParse . . . . .	452
pCParseParser . . . . .	452
pCRoutes . . . . .	453
pCScripts . . . . .	453
pCursorDraw . . . . .	454
pdisplay . . . . .	454
pEAI_C_CommonFunctions . . . . .	454
pEAICore . . . . .	455
pEAIEventsIn . . . . .	455
pEAHelpers . . . . .	455
pedal_state . . . . .	456
pFrustum . . . . .	456
pict . . . . .	456
pict_image . . . . .	457
pJScript . . . . .	457
pjsUtils . . . . .	458
pjsVRMLBrowser . . . . .	458
pjsVRMLClasses . . . . .	458
pLoadTextures . . . . .	459
pMainloop . . . . .	459
Point . . . . .	460
point_XYZ . . . . .	461
point_XYZ3 . . . . .	461
pointer2pointer . . . . .	461
polygon . . . . .	462
polyrep_combiner_data . . . . .	462
Pool . . . . .	462
PooledObj . . . . .	463
Arc . . . . .	76
BezierArc . . . . .	86
Dlnode . . . . .	158
GridTrimVertex . . . . .	273
Mapdesc . . . . .	313
O_curve . . . . .	433
O_nurbscurve . . . . .	433
O_nurbssurface . . . . .	434
O_pwlcurve . . . . .	435
O_surface . . . . .	435
O_trim . . . . .	436
Property . . . . .	471
PwlArc . . . . .	476
Quilt . . . . .	478
pOpenGL_Utils . . . . .	464
pPluginSocket . . . . .	465
ppluginUtils . . . . .	465
pProdCon . . . . .	465
PQhandleElem . . . . .	466
PQnode . . . . .	466
pRasterFont . . . . .	466

pRenderFuncs . . . . .	467
pRenderTextures . . . . .	468
presources . . . . .	468
primStream . . . . .	469
PriorityQ . . . . .	469
profile_entry . . . . .	470
org.web3d.x3d.sai.ProfileInfo . . . . .	470
sai.FWProfileInfo . . . . .	253
proftablestruct . . . . .	471
ProtoDefinition . . . . .	472
ProtoFieldDecl . . . . .	472
pSensInterps . . . . .	473
pSnapshot . . . . .	473
Pspec . . . . .	473
Patchspec . . . . .	442
PSStruct . . . . .	474
pstatusbar . . . . .	474
pStreamPoly . . . . .	475
pTess . . . . .	475
pTextures . . . . .	475
pViewer . . . . .	476
pX3DParser . . . . .	477
quaternion . . . . .	478
Quiltspec . . . . .	479
rb1 . . . . .	479
rectBlock . . . . .	480
rectBlockArray . . . . .	480
reflexChain . . . . .	481
Renderhints . . . . .	481
resource_item . . . . .	482
row32 . . . . .	482
Runnable . . . . .	
sai.eai.EAInThread . . . . .	190
vrml.external.FreeWRLEAI.EAInThread . . . . .	190
RuntimeException . . . . .	
org.web3d.x3d.sai.X3DException . . . . .	821
org.web3d.x3d.sai.BrowserNotSharedException . . . . .	99
org.web3d.x3d.sai.ConnectionException . . . . .	106
org.web3d.x3d.sai.ImportedNodeException . . . . .	281
org.web3d.x3d.sai.InsufficientCapabilitiesException . . . . .	282
org.web3d.x3d.sai.InvalidBrowserException . . . . .	285
org.web3d.x3d.sai.InvalidDocumentException . . . . .	286
org.web3d.x3d.sai.InvalidExecutionContextException . . . . .	289
org.web3d.x3d.sai.InvalidFieldException . . . . .	291
org.web3d.x3d.sai.InvalidFieldValueException . . . . .	292
org.web3d.x3d.sai.InvalidNameException . . . . .	293
org.web3d.x3d.sai.InvalidNodeException . . . . .	294
org.web3d.x3d.sai.InvalidOperationTimingException . . . . .	296
org.web3d.x3d.sai.InvalidProtoException . . . . .	297
org.web3d.x3d.sai.InvalidRouteException . . . . .	298
org.web3d.x3d.sai.InvalidURLErrorException . . . . .	299
org.web3d.x3d.sai.InvalidX3DException . . . . .	303
org.web3d.x3d.sai.NodeInUseException . . . . .	356
org.web3d.x3d.sai.NodeUnavailableException . . . . .	357
org.web3d.x3d.sai.NoSuchBrowserException . . . . .	358
org.web3d.x3d.sai.NotSupportedException . . . . .	359
org.web3d.x3d.sai.URLUnavailableException . . . . .	560
sai.eai.UnsupportedFieldTypeException . . . . .	556

vrml.external.exception.InvalidEventInException . . . . .	287
vrml.external.exception.InvalidEventOutException . . . . .	288
vrml.external.exception.InvalidNodeException . . . . .	295
vrml.external.exception.InvalidVrmlException . . . . .	300
vrml.external.FreeWRLEAI.UnsupportedFieldTypeException . . . . .	556
s_renderer_capabilities_t . . . . .	483
s_shader_capabilities . . . . .	484
freeWRLSAI_cpp::saiBrowser . . . . .	485
freeWRLSAI_cpp::saiComponent . . . . .	486
freeWRLSAI_cpp::saiExecutionContext . . . . .	488
freeWRLSAI_cpp::saiField . . . . .	488
freeWRLSAI_cpp::saiNode . . . . .	489
freeWRLSAI_cpp::saiProfileDeclaration . . . . .	489
freeWRLSAI_cpp::saiProto . . . . .	490
freeWRLSAI_cpp::saiRoute . . . . .	490
freeWRLSAI_cpp::saiScene . . . . .	491
sampledLine . . . . .	491
sCollisionGeometry . . . . .	492
sCollisionInfo . . . . .	492
screenextdata . . . . .	492
ScriptFieldDecl . . . . .	495
ScriptFieldInstanceInfo . . . . .	495
ScriptParamList . . . . .	496
SecureClassLoader	
vrml.FWJavaScriptClassLoader . . . . .	243
SensStruct . . . . .	496
sFallInfo . . . . .	497
SFColor . . . . .	499
SFColorRGBA . . . . .	500
SFMatrix3d . . . . .	506
SFMatrix3f . . . . .	506
SFMatrix4d . . . . .	507
SFMatrix4f . . . . .	507
SFRotation . . . . .	509
SFVec2d . . . . .	513
SFVec2f . . . . .	513
SFVec3d . . . . .	516
SFVec3f . . . . .	517
SFVec4d . . . . .	518
SFVec4f . . . . .	518
Shader_Script . . . . .	518
shaderflagsstruct . . . . .	519
shaderTableEntry . . . . .	519
slice . . . . .	519
sNavInfo . . . . .	521
SNDFILE . . . . .	521
Sorter . . . . .	521
ArcSorter . . . . .	78
ArcSdirSorter . . . . .	77
ArcTdirSorter . . . . .	79
FlistSorter . . . . .	224
Splinespec . . . . .	522
ssr . . . . .	523
SSR_request . . . . .	523
stage . . . . .	524
StoredVertex . . . . .	524
Subdivider . . . . .	525
surfEvalMachine . . . . .	525

sweepRange . . . . .	526
targetwindow . . . . .	526
iiglobal::tBindable . . . . .	527
iiglobal::tcollision . . . . .	527
iiglobal::tcommon . . . . .	527
iiglobal::tComponent_CubeMapTexturing . . . . .	528
iiglobal::tComponent_EnvironSensor . . . . .	528
iiglobal::tComponent_Followers . . . . .	528
iiglobal::tComponent_Geometry3D . . . . .	529
iiglobal::tComponent_Geospatial . . . . .	529
iiglobal::tComponent_HAnim . . . . .	529
iiglobal::tComponent_KeyDevice . . . . .	530
iiglobal::tComponent_Layering . . . . .	530
iiglobal::tComponent_Layout . . . . .	530
iiglobal::tComponent_NURBS . . . . .	531
iiglobal::tComponent_ParticleSystems . . . . .	531
iiglobal::tComponent_Picking . . . . .	531
iiglobal::tComponent_ProgrammableShaders . . . . .	532
iiglobal::tComponent_Rendering . . . . .	532
iiglobal::tComponent_RigidBodyPhysics . . . . .	532
iiglobal::tComponent_Shape . . . . .	533
iiglobal::tComponent_Sound . . . . .	533
iiglobal::tComponent_Text . . . . .	533
iiglobal::tComponent_VolumeRendering . . . . .	534
iiglobal::tComponent_VRML1 . . . . .	534
iiglobal::tConsoleMessage . . . . .	534
tcontenttype . . . . .	535
iiglobal::tCParse . . . . .	535
iiglobal::tCParseParser . . . . .	536
iiglobal::tCRoutes . . . . .	536
iiglobal::tCScripts . . . . .	536
iiglobal::tCursorDraw . . . . .	537
iiglobal::tdisplay . . . . .	537
iiglobal::tEAI_C_CommonFunctions . . . . .	537
iiglobal::tEAICore . . . . .	538
iiglobal::tEAIEventsIn . . . . .	538
iiglobal::tEAHelpers . . . . .	538
text_combiner_data . . . . .	539
textureTableIndexStruct . . . . .	539
textureVertexInfo . . . . .	540
iiglobal::tFrustum . . . . .	540
Thread	
sai.eai.EAIAsyncThread . . . . .	189
sai.eai.EAIoutThread . . . . .	193
vrml.external.FreeWRLEAI.EAIAsyncThread . . . . .	189
vrml.external.FreeWRLEAI.EAIoutThread . . . . .	194
iiglobal::tinternalc . . . . .	541
iiglobal::tJScript . . . . .	541
iiglobal::tjsUtils . . . . .	541
iiglobal::tjsVRMLBrowser . . . . .	542
iiglobal::tjsVRMLClasses . . . . .	542
iiglobal::tLoadTextures . . . . .	542
tm_unz_s . . . . .	543
tm_zip_s . . . . .	543
iiglobal::tMainloop . . . . .	544
iiglobal::tOpenGL_Utils . . . . .	544
Touch . . . . .	545
iiglobal::tPluginSocket . . . . .	546

iiglobal::tpluginUtils	546
iiglobal::tProdCon	546
treeNode	547
iiglobal::tRenderFuncs	547
trenderstate	548
iiglobal::tRenderTextures	548
iiglobal::tresources	549
Trimline	549
TrimRegion	550
CoveAndTiler	131
Slicer	520
Hull	276
Mesher	319
Slicer	520
Mesher	319
TrimVertex	550
TrimVertexPool	551
iiglobal::tSensInterps	551
iiglobal::tSnapshot	551
iiglobal::tstatusbar	552
iiglobal::tStreamPoly	552
iiglobal::tTess	552
iiglobal::tTextures	553
iiglobal::tthreads	553
iiglobal::tViewer	554
iiglobal::tX3DParser	554
Uarray	554
un1	555
Uni_String	555
unz64_file_pos_s	557
unz64_s	557
unz_file_info64_internal_s	558
unz_file_info64_s	558
unz_file_info_s	559
unz_file_pos_s	559
unz_global_info64_s	559
unz_global_info_s	560
usehit	561
Varray	562
vec2	562
vec4	562
Vector	563
vertexArray	563
sai.eai.VField	564
sai.eai.VMFCColor	573
sai.eai.VMFFloat	575
sai.eai.VMFInt32	576
sai.eai.VMFRotation	577
sai.eai.VMFString	579
sai.eai.VMFVec2f	580
sai.eai.VMFVec3f	581
sai.eai.VSFBool	586
sai.eai.VSFColor	587
sai.eai.VSFFloat	589
sai.eai.VSFImage	590
sai.eai.VSFInt32	590
sai.eai.VSFRotation	592
sai.eai.VSFString	593

sai.eai.VSFTIME	594
sai.eai.VSFVec2f	595
sai.eai.VSFVec3f	597
vrml.external.FreeWRLEAI.VField	565
vrml.external.FreeWRLEAI.VMFCOLOR	574
vrml.external.FreeWRLEAI.VMFFloat	575
vrml.external.FreeWRLEAI.VMFInt32	576
vrml.external.FreeWRLEAI.VMFRotation	578
vrml.external.FreeWRLEAI.VMFString	578
vrml.external.FreeWRLEAI.VMFVec2f	579
vrml.external.FreeWRLEAI.VMFVec3f	581
vrml.external.FreeWRLEAI.VSFBool	586
vrml.external.FreeWRLEAI.VSFColor	587
vrml.external.FreeWRLEAI.VSFFloat	588
vrml.external.FreeWRLEAI.VSFImage	589
vrml.external.FreeWRLEAI.VSFInt32	591
vrml.external.FreeWRLEAI.VSFRotation	592
vrml.external.FreeWRLEAI.VSFString	593
vrml.external.FreeWRLEAI.VSFTIME	595
vrml.external.FreeWRLEAI.VSFVec2f	596
vrml.external.FreeWRLEAI.VSFVec3f	596
vid_stream	567
viewer	568
viewer_examine	570
viewer_fly	570
viewer_inplane	570
viewer_walk	571
viewer_ypz	571
sai.eai.VIP	572
vrml.external.FreeWRLEAI.VIP	572
void3	582
VRMLLexer	582
sai.eai.VRMLObject	583
vrml.external.FreeWRLEAI.VRMLObject	584
vrml.external.FreeWRLEAI.VRMLObjectObserver	584
sai.eai.VRMLObjectObserver	585
VRMLParser	585
walk_cbdata	598
WEB3DNATIVE	598
X3D_Anchor	599
X3D_Appearance	600
X3D_Arc2D	600
X3D_ArcClose2D	601
X3D_AudioClip	602
X3D_BackdropBackground	603
X3D_Background	603
X3D_BallJoint	604
X3D_Billboard	605
X3D_BlendedVolumeStyle	606
X3D_BooleanFilter	607
X3D_BooleanSequencer	607
X3D_BooleanToggle	608
X3D_BooleanTrigger	608
X3D_BoundaryEnhancementVolumeStyle	609
X3D_BoundedPhysicsModel	610
X3D_Box	610
X3D_CADAssembly	611
X3D_CADFace	612



X3D_CADLayer . . . . .	612
X3D_CADPart . . . . .	613
X3D_CalibratedCameraSensor . . . . .	614
X3D_CartoonVolumeStyle . . . . .	614
X3D_Circle2D . . . . .	615
X3D_ClipPlane . . . . .	615
X3D_CollidableOffset . . . . .	616
X3D_CollidableShape . . . . .	617
X3D_Collision . . . . .	617
X3D_CollisionCollection . . . . .	618
X3D_CollisionSensor . . . . .	619
X3D_CollisionSpace . . . . .	620
X3D_Color . . . . .	620
X3D_ColorChaser . . . . .	621
X3D_ColorDamper . . . . .	622
X3D_ColorInterpolator . . . . .	623
X3D_ColorRGBA . . . . .	623
X3D_ComposedCubeMapTexture . . . . .	624
X3D_ComposedShader . . . . .	625
X3D_ComposedTexture3D . . . . .	625
X3D_ComposedVolumeStyle . . . . .	626
X3D_CompositeVolumeStyle . . . . .	627
X3D_Cone . . . . .	627
X3D_ConeEmitter . . . . .	628
X3D_Contact . . . . .	629
X3D_Contour2D . . . . .	630
X3D_ContourPolyline2D . . . . .	630
X3D_Coordinate . . . . .	631
X3D_CoordinateChaser . . . . .	631
X3D_CoordinateDamper . . . . .	632
X3D_CoordinateDouble . . . . .	633
X3D_CoordinateInterpolator . . . . .	634
X3D_CoordinateInterpolator2D . . . . .	634
X3D_Cylinder . . . . .	635
X3D_CylinderSensor . . . . .	636
X3D_DirectionalLight . . . . .	637
X3D_DISEntityManager . . . . .	637
X3D_DISEntityTypeMapping . . . . .	638
X3D_Disk2D . . . . .	639
X3D_DoubleAxisHingeJoint . . . . .	640
X3D_EaseInEaseOut . . . . .	641
X3D_EdgeEnhancementVolumeStyle . . . . .	642
X3D_Effect . . . . .	642
X3D_EffectPart . . . . .	643
X3D_ElevationGrid . . . . .	644
X3D_EspduTransform . . . . .	645
X3D_ExplosionEmitter . . . . .	647
X3D_Extrusion . . . . .	648
X3D_FillProperties . . . . .	649
X3D_FloatVertexAttribute . . . . .	649
X3D_Fog . . . . .	650
X3D_FogCoordinate . . . . .	651
X3D_FontStyle . . . . .	651
X3D_ForcePhysicsModel . . . . .	652
X3D_GeneratedCubeMapTexture . . . . .	653
X3D_GeoCoordinate . . . . .	653
X3D_GeoElevationGrid . . . . .	654
X3D_GeoLocation . . . . .	655

X3D_GeoLOD . . . . .	656
X3D_GeoMetadata . . . . .	657
X3D_GeoOrigin . . . . .	657
X3D_GeoPositionInterpolator . . . . .	658
X3D_GeoProximitySensor . . . . .	659
X3D_GeoTouchSensor . . . . .	660
X3D_GeoTransform . . . . .	661
X3D_GeoViewpoint . . . . .	662
X3D_Group . . . . .	663
X3D_HAnimDisplacer . . . . .	663
X3D_HAnimHumanoid . . . . .	664
X3D_HAnimJoint . . . . .	665
X3D_HAnimSegment . . . . .	666
X3D_HAnimSite . . . . .	667
X3D_ImageBackdropBackground . . . . .	668
X3D_ImageCubeMapTexture . . . . .	668
X3D_ImageTexture . . . . .	669
X3D_ImageTexture3D . . . . .	670
X3D_IndexedFaceSet . . . . .	670
X3D_IndexedLineSet . . . . .	671
X3D_IndexedQuadSet . . . . .	672
X3D_IndexedTriangleFanSet . . . . .	673
X3D_IndexedTriangleSet . . . . .	674
X3D_IndexedTriangleStripSet . . . . .	674
X3D_Inline . . . . .	675
X3D_IntegerSequencer . . . . .	676
X3D_IntegerTrigger . . . . .	677
X3D_IsoSurfaceVolumeData . . . . .	678
X3D_KeySensor . . . . .	678
X3D_Layer . . . . .	679
X3D_LayerSet . . . . .	680
X3D_Layout . . . . .	681
X3D_LayoutGroup . . . . .	681
X3D_LayoutLayer . . . . .	682
X3D_LinePickSensor . . . . .	683
X3D_LineProperties . . . . .	684
X3D_LineSensor . . . . .	684
X3D_LineSet . . . . .	685
X3D_LoadSensor . . . . .	686
X3D_LocalFog . . . . .	687
X3D_LOD . . . . .	687
X3D_Material . . . . .	688
X3D_Matrix3VertexAttribute . . . . .	689
X3D_Matrix4VertexAttribute . . . . .	689
X3D_MetadataBoolean . . . . .	690
X3D_MetadataDouble . . . . .	691
X3D_MetadataFloat . . . . .	691
X3D_MetadataInteger . . . . .	692
X3D_MetadataMFBool . . . . .	693
X3D_MetadataMFColor . . . . .	693
X3D_MetadataMFColorRGBA . . . . .	694
X3D_MetadataMFDouble . . . . .	695
X3D_MetadataMFFloat . . . . .	695
X3D_MetadataMFInt32 . . . . .	696
X3D_MetadataMFMatrix3d . . . . .	697
X3D_MetadataMFMatrix3f . . . . .	697
X3D_MetadataMFMatrix4d . . . . .	698
X3D_MetadataMFMatrix4f . . . . .	699

X3D_MetadataMFNode . . . . .	699
X3D_MetadataMFRotation . . . . .	700
X3D_MetadataMFString . . . . .	701
X3D_MetadataMFTime . . . . .	701
X3D_MetadataMFVec2d . . . . .	702
X3D_MetadataMFVec2f . . . . .	703
X3D_MetadataMFVec3d . . . . .	703
X3D_MetadataMFVec3f . . . . .	704
X3D_MetadataMFVec4d . . . . .	705
X3D_MetadataMFVec4f . . . . .	705
X3D_MetadataSet . . . . .	706
X3D_MetadataSFBool . . . . .	707
X3D_MetadataSFColor . . . . .	707
X3D_MetadataSFColorRGBA . . . . .	708
X3D_MetadataSFDouble . . . . .	709
X3D_MetadataSFFloat . . . . .	709
X3D_MetadataSFImage . . . . .	710
X3D_MetadataSFInt32 . . . . .	711
X3D_MetadataSFMatrix3d . . . . .	711
X3D_MetadataSFMatrix3f . . . . .	712
X3D_MetadataSFMatrix4d . . . . .	713
X3D_MetadataSFMatrix4f . . . . .	713
X3D_MetadataSFNode . . . . .	714
X3D_MetadataSFRotation . . . . .	715
X3D_MetadataSFString . . . . .	715
X3D_MetadataSFTime . . . . .	716
X3D_MetadataSFVec2d . . . . .	717
X3D_MetadataSFVec2f . . . . .	717
X3D_MetadataSFVec3d . . . . .	718
X3D_MetadataSFVec3f . . . . .	719
X3D_MetadataSFVec4d . . . . .	719
X3D_MetadataSFVec4f . . . . .	720
X3D_MetadataString . . . . .	721
X3D_MotorJoint . . . . .	721
X3D_MovieTexture . . . . .	723
X3D_MultiTexture . . . . .	724
X3D_MultiTextureCoordinate . . . . .	724
X3D_MultiTextureTransform . . . . .	725
X3D_NavigationInfo . . . . .	725
X3D_Node . . . . .	726
X3D_Normal . . . . .	727
X3D_NormalInterpolator . . . . .	727
X3D_NurbsCurve . . . . .	728
X3D_NurbsCurve2D . . . . .	729
X3D_NurbsOrientationInterpolator . . . . .	729
X3D_NurbsPatchSurface . . . . .	730
X3D_NurbsPositionInterpolator . . . . .	731
X3D_NurbsSet . . . . .	732
X3D_NurbsSurfaceInterpolator . . . . .	732
X3D_NurbsSweptSurface . . . . .	733
X3D_NurbsSwungSurface . . . . .	734
X3D_NurbsTextureCoordinate . . . . .	735
X3D_NurbsTrimmedSurface . . . . .	735
X3D_OpacityMapVolumeStyle . . . . .	736
X3D_OrientationChaser . . . . .	737
X3D_OrientationDamper . . . . .	738
X3D_OrientationInterpolator . . . . .	739
X3D_OrthoViewpoint . . . . .	739

X3D_OSC_Sensor . . . . .	740
X3D_PackagedShader . . . . .	741
X3D_ParticleSystem . . . . .	742
X3D_PickableGroup . . . . .	743
X3D_PixelTexture . . . . .	744
X3D_PixelTexture3D . . . . .	744
X3D_PlaneSensor . . . . .	745
X3D_PointEmitter . . . . .	746
X3D_PointLight . . . . .	747
X3D_PointPickSensor . . . . .	747
X3D_PointSet . . . . .	748
X3D_Polyline2D . . . . .	749
X3D_PolylineEmitter . . . . .	750
X3D_Polypoint2D . . . . .	750
X3D_PolyRep . . . . .	751
X3D_PositionChaser . . . . .	752
X3D_PositionChaser2D . . . . .	753
X3D_PositionDamper . . . . .	754
X3D_PositionDamper2D . . . . .	755
X3D_PositionInterpolator . . . . .	756
X3D_PositionInterpolator2D . . . . .	756
X3D_PrimitivePickSensor . . . . .	757
X3D_ProgramShader . . . . .	758
X3D_ProjectionVolumeStyle . . . . .	758
X3D_Proto . . . . .	759
X3D_ProximitySensor . . . . .	760
X3D_QuadSet . . . . .	761
X3D_ReceiverPdu . . . . .	761
X3D_Rectangle2D . . . . .	763
X3D_RigidBody . . . . .	763
X3D_RigidBodyCollection . . . . .	764
X3D_ScalarChaser . . . . .	765
X3D_ScalarDamper . . . . .	766
X3D_ScalarInterpolator . . . . .	767
X3D_ScreenFontStyle . . . . .	768
X3D_ScreenGroup . . . . .	768
X3D_Script . . . . .	769
X3D_SegmentedVolumeData . . . . .	770
X3D_ShadedVolumeStyle . . . . .	770
X3D_ShaderPart . . . . .	771
X3D_ShaderProgram . . . . .	772
X3D_Shape . . . . .	772
X3D_SignalPdu . . . . .	773
X3D_SilhouetteEnhancementVolumeStyle . . . . .	774
X3D_SingleAxisHingeJoint . . . . .	775
X3D_SliderJoint . . . . .	776
X3D_Sound . . . . .	777
X3D_Sphere . . . . .	777
X3D_SphereSensor . . . . .	778
X3D_SplinePositionInterpolator . . . . .	779
X3D_SplinePositionInterpolator2D . . . . .	780
X3D_SplineScalarInterpolator . . . . .	780
X3D_SpotLight . . . . .	781
X3D_SquadOrientationInterpolator . . . . .	782
X3D_StaticGroup . . . . .	783
X3D_StringSensor . . . . .	783
X3D_SurfaceEmitter . . . . .	784
X3D_Switch . . . . .	785

X3D_Teapot . . . . .	786
X3D_TexCoordChaser2D . . . . .	786
X3D_TexCoordDamper2D . . . . .	787
X3D_Text . . . . .	788
X3D_TextureBackground . . . . .	789
X3D_TextureCoordinate . . . . .	790
X3D_TextureCoordinate3D . . . . .	790
X3D_TextureCoordinate4D . . . . .	791
X3D_TextureCoordinateGenerator . . . . .	791
X3D_TextureProperties . . . . .	792
X3D_TextureTransform . . . . .	793
X3D_TextureTransform3D . . . . .	793
X3D_TextureTransformMatrix3D . . . . .	794
X3D_TimeSensor . . . . .	794
X3D_TimeTrigger . . . . .	795
X3D_ToneMappedVolumeStyle . . . . .	796
X3D_TouchSensor . . . . .	797
X3D_TrackingSensor . . . . .	797
X3D_Transform . . . . .	798
X3D_TransformSensor . . . . .	799
X3D_TransmitterPdu . . . . .	800
X3D_TriangleFanSet . . . . .	801
X3D_TriangleSet . . . . .	802
X3D_TriangleSet2D . . . . .	803
X3D_TriangleStripSet . . . . .	803
X3D_TwoSidedMaterial . . . . .	804
X3D_UniversalJoint . . . . .	805
X3D_Viewpoint . . . . .	806
X3D_ViewpointGroup . . . . .	807
X3D_Viewport . . . . .	807
X3D_Virt . . . . .	808
X3D_VisibilitySensor . . . . .	809
X3D_VolumeData . . . . .	809
X3D_VolumeEmitter . . . . .	810
X3D_VolumePickSensor . . . . .	811
X3D_WindPhysicsModel . . . . .	812
X3D_WorldInfo . . . . .	812
org.web3d.x3d.sai.X3DBoundedObject . . . . .	816
org.web3d.x3d.sai.X3DGroupingNode . . . . .	829
org.web3d.x3d.sai.X3DComponent . . . . .	817
sai.FreeWRLComponent . . . . .	229
org.web3d.x3d.sai.X3DExecutionContext . . . . .	822
org.web3d.x3d.sai.X3DScene . . . . .	839
sai.FreeWRLScene . . . . .	236
org.web3d.x3d.sai.X3DField . . . . .	823
org.web3d.x3d.sai.MField . . . . .	325
org.web3d.x3d.sai.MFBool . . . . .	319
org.web3d.x3d.sai.MFColor . . . . .	321
sai.FWMFColor . . . . .	244
org.web3d.x3d.sai.MFColorRGBA . . . . .	322
sai.FWMFColorRGBA . . . . .	244
org.web3d.x3d.sai.MFDouble . . . . .	322
sai.FWMFDouble . . . . .	245
org.web3d.x3d.sai.MFFloat . . . . .	323
sai.FWMFFloat . . . . .	246
org.web3d.x3d.sai.MFImage . . . . .	327
org.web3d.x3d.sai.MFInt32 . . . . .	328

sai.FWMFInt32 . . . . .	247
org.web3d.x3d.sai.MFNode . . . . .	329
sai.FWMFNode . . . . .	247
org.web3d.x3d.sai.MFRotation . . . . .	331
sai.FWMFRotation . . . . .	248
org.web3d.x3d.sai.MFString . . . . .	333
sai.FWMFString . . . . .	249
org.web3d.x3d.sai.MFTime . . . . .	335
org.web3d.x3d.sai.MFVec2d . . . . .	336
sai.FWMFVec2d . . . . .	250
org.web3d.x3d.sai.MFVec2f . . . . .	338
sai.FWMFVec2f . . . . .	250
org.web3d.x3d.sai.MFVec3d . . . . .	339
sai.FWMFVec3d . . . . .	251
org.web3d.x3d.sai.MFVec3f . . . . .	340
sai.FWMFVec3f . . . . .	252
sai.FreeWRLMField . . . . .	232
sai.FWMFColor . . . . .	244
sai.FWMFColorRGBA . . . . .	244
sai.FWMFDouble . . . . .	245
sai.FWMFFloat . . . . .	246
sai.FWMFInt32 . . . . .	247
sai.FWMFNode . . . . .	247
sai.FWMFRotation . . . . .	248
sai.FWMFString . . . . .	249
sai.FWMFVec2d . . . . .	250
sai.FWMFVec2f . . . . .	250
sai.FWMFVec3d . . . . .	251
sai.FWMFVec3f . . . . .	252
org.web3d.x3d.sai.SFBool . . . . .	497
sai.FWSFBool . . . . .	256
org.web3d.x3d.sai.SFColor . . . . .	499
sai.FWSFColor . . . . .	257
org.web3d.x3d.sai.SFColorRGBA . . . . .	501
sai.FWSFColorRGBA . . . . .	258
org.web3d.x3d.sai.SFDouble . . . . .	501
sai.FWSFDouble . . . . .	258
org.web3d.x3d.sai.SFFloat . . . . .	503
sai.FWSFFloat . . . . .	259
org.web3d.x3d.sai.SFImage . . . . .	504
sai.FWSFImage . . . . .	259
org.web3d.x3d.sai.SFInt32 . . . . .	505
sai.FWSFInt32 . . . . .	260
org.web3d.x3d.sai.SFNode . . . . .	508
sai.FWSFNode . . . . .	261
org.web3d.x3d.sai.SFRotation . . . . .	510
sai.FWSFRotation . . . . .	261
org.web3d.x3d.sai.SFString . . . . .	511
sai.FWSFString . . . . .	262
org.web3d.x3d.sai.SFTime . . . . .	512
sai.FWSFTime . . . . .	262
org.web3d.x3d.sai.SFVec2d . . . . .	513
sai.FWSFVec2d . . . . .	263
org.web3d.x3d.sai.SFVec2f . . . . .	515
sai.FWSFVec2f . . . . .	264
org.web3d.x3d.sai.SFVec3d . . . . .	515

sai.FWSFVec3d . . . . .	264
org.web3d.x3d.sai.SFVec3f . . . . .	516
sai.FWSFVec3f . . . . .	265
sai.FreeWRLField . . . . .	229
sai.FreeWRLMField . . . . .	232
sai.FWSFBool . . . . .	256
sai.FWSFColor . . . . .	257
sai.FWSFColorRGBA . . . . .	258
sai.FWSFDouble . . . . .	258
sai.FWSFFloat . . . . .	259
sai.FWSFImage . . . . .	259
sai.FWSFInt32 . . . . .	260
sai.FWSFNode . . . . .	261
sai.FWSFRotation . . . . .	261
sai.FWSFString . . . . .	262
sai.FWSFTime . . . . .	262
sai.FWSFVec2d . . . . .	263
sai.FWSFVec2f . . . . .	264
sai.FWSFVec3d . . . . .	264
sai.FWSFVec3f . . . . .	265
org.web3d.x3d.sai.X3DFieldDefinition . . . . .	825
sai.FreeWRLFieldDefinition . . . . .	231
org.web3d.x3d.sai.X3DFieldTypes . . . . .	826
sai.FreeWRLFieldTypes . . . . .	232
org.web3d.x3d.sai.X3DMetadataObject . . . . .	832
org.web3d.x3d.sai.X3DNode . . . . .	833
org.web3d.x3d.sai.X3DAppearanceChildNode . . . . .	813
org.web3d.x3d.sai.X3DMaterialNode . . . . .	832
org.web3d.x3d.sai.X3DTextureNode . . . . .	845
org.web3d.x3d.sai.X3DTexture2DNode . . . . .	844
org.web3d.x3d.sai.X3DTextureTransformNode . . . . .	846
org.web3d.x3d.sai.X3DTextureTransform2DNode . . . . .	845
org.web3d.x3d.sai.X3DAppearanceNode . . . . .	813
org.web3d.x3d.sai.X3DChildNode . . . . .	816
org.web3d.x3d.sai.X3DBindableNode . . . . .	815
org.web3d.x3d.sai.X3DBackgroundNode . . . . .	814
org.web3d.x3d.sai.X3DGroupingNode . . . . .	829
org.web3d.x3d.sai.X3DInfoNode . . . . .	829
org.web3d.x3d.sai.X3DInterpolatorNode . . . . .	830
org.web3d.x3d.sai.X3DLightNode . . . . .	831
org.web3d.x3d.sai.X3DScriptNode . . . . .	840
org.web3d.x3d.sai.X3DSensorNode . . . . .	841
org.web3d.x3d.sai.X3DEnvironmentalSensorNode . . . . .	820
org.web3d.x3d.sai.X3DKeyDeviceSensorNode . . . . .	830
org.web3d.x3d.sai.X3DNetworkSensorNode . . . . .	833
org.web3d.x3d.sai.X3DPointingDeviceSensorNode . . . . .	837
org.web3d.x3d.sai.X3DDragSensorNode . . . . .	819
org.web3d.x3d.sai.X3DTouchSensorNode . . . . .	848
org.web3d.x3d.sai.X3DSequencerNode . . . . .	841
org.web3d.x3d.sai.X3DShapeNode . . . . .	842
org.web3d.x3d.sai.X3DSoundNode . . . . .	842
org.web3d.x3d.sai.X3DTimeDependentNode . . . . .	847
org.web3d.x3d.sai.X3DAudioClipNode . . . . .	814
org.web3d.x3d.sai.X3DTriggerNode . . . . .	848
org.web3d.x3d.sai.X3DFontStyleNode . . . . .	827
org.web3d.x3d.sai.X3DGeometricPropertyNode . . . . .	828

org.web3d.x3d.sai.X3DColorNode . . . . .	817
org.web3d.x3d.sai.X3DCoordinateNode . . . . .	819
org.web3d.x3d.sai.X3DNormalNode . . . . .	835
org.web3d.x3d.sai.X3DTextureCoordinateNode . . . . .	844
org.web3d.x3d.sai.X3DGeometryNode . . . . .	828
org.web3d.x3d.sai.X3DComposedGeometryNode . . . . .	818
org.web3d.x3d.sai.X3DParametricGeometryNode . . . . .	836
org.web3d.x3d.sai.X3DTextNode . . . . .	843
org.web3d.x3d.sai.X3DProtoInstance . . . . .	838
sai.FWProtoInstance . . . . .	255
sai.FreeWRLNode . . . . .	234
sai.FWProtoInstance . . . . .	255
org.web3d.x3d.sai.X3DNodeTypes . . . . .	834
sai.FreeWRLNodeTypes . . . . .	234
org.web3d.x3d.sai.X3DProtoDeclaration . . . . .	837
org.web3d.x3d.sai.X3DExternProtoDeclaration . . . . .	823
sai.FWExternProtoDeclaration . . . . .	240
sai.FWProtoDeclaration . . . . .	254
sai.FWProtoDeclaration . . . . .	254
org.web3d.x3d.sai.X3DRoute . . . . .	838
sai.FWRoute . . . . .	256
org.web3d.x3d.sai.X3DScriptImplementation . . . . .	840
org.web3d.x3d.sai.X3DPerFrameObserverScript . . . . .	836
org.web3d.x3d.sai.X3DSoundSourceNode . . . . .	843
org.web3d.x3d.sai.X3DUrlObject . . . . .	849
org.web3d.x3d.sai.X3DAudioClipNode . . . . .	814
org.web3d.x3d.sai.X3DScriptNode . . . . .	840
xml_user_data . . . . .	849
XY . . . . .	850
zip64_internal . . . . .	850
zip_fileinfo . . . . .	851
zlib_filefunc64_32_def_s . . . . .	851
zlib_filefunc64_def_s . . . . .	851
zlib_filefunc_def_s . . . . .	852
zone . . . . .	852



## Chapter 3

# Data Structure Index

### 3.1 Data Structures

Here are the data structures with brief descriptions:

<b>_BrowserNative</b> . . . . .	51
<b>_cd_list_t</b> . . . . .	51
<b>_CRnodeStruct</b> . . . . .	52
<b>_FW_PluginInstance</b> . . . . .	52
<b>_GLwDrawingAreaClassPart</b> . . . . .	53
<b>_GLwDrawingAreaClassRec</b> . . . . .	53
<b>_GLwDrawingAreaRec</b> . . . . .	53
<b>_intX3D_MFBool</b> . . . . .	54
<b>_intX3D_MFColor</b> . . . . .	54
<b>_intX3D_MFColorRGBA</b> . . . . .	54
<b>_intX3D_MFFloat</b> . . . . .	55
<b>_intX3D_MFImage</b> . . . . .	55
<b>_intX3D_MFInt32</b> . . . . .	55
<b>_intX3D_MFNode</b> . . . . .	56
<b>_intX3D_MFRotation</b> . . . . .	56
<b>_intX3D_MFString</b> . . . . .	56
<b>_intX3D_MFTime</b> . . . . .	57
<b>_intX3D_MFVec2d</b> . . . . .	57
<b>_intX3D_MFVec2f</b> . . . . .	57
<b>_intX3D_MFVec3d</b> . . . . .	58
<b>_intX3D_MFVec3f</b> . . . . .	58
<b>_intX3D_SFBool</b> . . . . .	58
<b>_intX3D_SFColor</b> . . . . .	59
<b>_intX3D_SFColorRGBA</b> . . . . .	59
<b>_intX3D_SFFloat</b> . . . . .	59
<b>_intX3D_SFImage</b> . . . . .	60
<b>_intX3D_SFInt32</b> . . . . .	60
<b>_intX3D_SFNode</b> . . . . .	60
<b>_intX3D_SFRotation</b> . . . . .	61
<b>_intX3D_SFString</b> . . . . .	61
<b>_intX3D_SFTime</b> . . . . .	61
<b>_intX3D_SFVec2d</b> . . . . .	62
<b>_intX3D_SFVec2f</b> . . . . .	62
<b>_intX3D_SFVec3d</b> . . . . .	62
<b>_intX3D_SFVec3f</b> . . . . .	63

<code>_intX3DEventIn</code>	63
<code>_NPByteRange</code>	63
<code>_NPEmbedPrint</code>	64
<code>_NPFullPrint</code>	64
<code>_NPImageExpose</code>	65
<code>_NPNetscapeFuncs</code>	65
<code>_NPP</code>	66
<code>_NPPluginFuncs</code>	67
<code>_NPPrint</code>	67
<code>_NPRect</code>	68
<code>_NPSavedData</code>	68
<code>_NPSize</code>	68
<code>_NPStream</code>	69
<code>_NPString</code>	69
<code>_NPVariant</code>	69
<code>_NPWindow</code>	70
<code>_s_list_t</code>	70
<code>freeWRLSAI_cpp::SAIParameter</code>	71
<code>_SFColorNative</code>	71
<code>_SFColorRGBANative</code>	71
<code>_SFImageNative</code>	72
<code>_SFNodeNative</code>	72
<code>_SFRotationNative</code>	72
<code>_SFVec2fNative</code>	73
<code>_SFVec3dNative</code>	73
<code>_SFVec3fNative</code>	73
<code>_SFVec4dNative</code>	74
<code>_SFVec4fNative</code>	74
<code>_urlRequest</code>	74
<code>_X3DNode</code>	75
<code>ActiveRegion</code>	75
<code>anyVrml</code>	76
<code>Arc</code>	76
<code>ArcSdirSorter</code>	77
<code>ArcSorter</code>	78
<code>ArcTdirSorter</code>	79
<code>ArcTessellator</code>	79
<code>ArgListType</code>	80
<code>Atlas</code>	80
<code>AtlasEntry</code>	80
<code>AtlasEntrySet</code>	81
<code>AtlasFont</code>	81
<code>Backend</code>	82
<code>vrml.BaseNode</code>	83
<code>BasePlugin</code>	83
<code>BasicCurveEvaluator</code>	84
<code>BasicSurfaceEvaluator</code>	85
<code>BezierArc</code>	86
<code>bezierPatch</code>	86
<code>bezierPatchMesh</code>	87
<code>Bin</code>	87
<code>bindablestack</code>	88
<code>block</code>	88
<code>Breakpt</code>	89
<code>brotoDefpair</code>	89
<code>brotoIS</code>	90
<code>brotoRoute</code>	90
<code>brouteEnd</code>	90

org.web3d.x3d.sai.Browser	91
vrml.Browser	92
vrml.external.Browser	92
org.web3d.x3d.sai.BrowserEvent	94
sai.BrowserFactory	95
org.web3d.x3d.sai.BrowserFactoryImpl	95
vrml.external.BrowserGlobals	96
sai.BrowserGlobals	96
org.web3d.x3d.sai.BrowserInterface	97
vrml.external.BrowserInterface	97
org.web3d.x3d.sai.BrowserListener	98
freeWRLSAI_cpp::browserNotSharedException	98
org.web3d.x3d.sai.BrowserNotSharedException	99
Buffer	99
BUTitem	99
CachedVertex	100
CachingEvaluator	100
cbDataExactName	101
cbDataRootNameAndRouteDir	101
CdIIFreeWRL	102
chardata	103
chaser_ptr	103
cline	104
coded_block_pattern_entry	104
colorScheme	104
command	105
org.web3d.x3d.sai.ComponentInfo	105
connection_info_struct	106
org.web3d.x3d.sai.ConnectionException	106
freeWRLSAI_cpp::connectionException	107
consoleLine	107
vrml.ConstField	108
vrml.field.ConstMFColor	108
vrml.field.ConstMFFloat	109
vrml.ConstMField	110
vrml.field.ConstMFInt32	111
vrml.field.ConstMFNode	112
vrml.field.ConstMFRotation	113
vrml.field.ConstMFString	114
vrml.field.ConstMFTime	114
vrml.field.ConstMFVec2f	115
vrml.field.ConstMFVec3f	116
vrml.field.ConstSFBool	117
vrml.field.ConstSFColor	117
vrml.field.ConstSFFloat	118
vrml.field.ConstSFImage	119
vrml.field.ConstSFInt32	120
vrml.field.ConstSFNode	120
vrml.field.ConstSFRotation	121
vrml.field.ConstSFString	122
vrml.field.ConstSFTime	122
vrml.field.ConstSFVec2f	123
vrml.field.ConstSFVec3f	124
contenttype	124
contenttype_captiontext	125
contenttype_e3dmouse	125
contenttype_layer	126
contenttype_multitouch	126

<b>contenttype_orientation</b>	126
<b>contenttype_quadrant</b>	127
<b>contenttype_scene</b>	127
<b>contenttype_splitter</b>	127
<b>contenttype_statusbar</b>	128
<b>contenttype_stereo_anaglyph</b>	128
<b>contenttype_stereo_shutter</b>	128
<b>contenttype_stereo_sidebyside</b>	129
<b>contenttype_stereo_updown</b>	129
<b>contenttype_switch</b>	129
<b>contenttype_textpanel</b>	130
<b>contenttype_texturegrid</b>	131
<b>CoveAndTiler</b>	131
<b>CPlugin</b>	132
<b>CR_RegStruct</b>	133
<b>CRjsnameStruct</b>	133
<b>CRscriptStruct</b>	134
<b>CRStruct</b>	134
<b>cson_array</b>	
Cson_array is an opaque handle to an Array value	135
<b>cson_buffer</b>	
A generic buffer class	136
<b>cson_data_source_StringSource_</b>	
Internal type to hold state for a JSON input string	138
<b>cson_kvp</b>	
A key/value pair collection	139
<b>cson_kvp_list</b>	139
<b>cson_object</b>	
Cson_object is an opaque handle to an Object value	140
<b>cson_object_iterator</b>	
An iterator type for traversing object properties	141
<b>cson_output_opt</b>	
Client-configurable options for the cson_output() family of functions	141
<b>cson_parse_info</b>	
A class for holding JSON parser information	143
<b>cson_parse_opt</b>	
Client-configurable options for the cson_parse() family of functions	144
<b>cson_parser</b>	144
<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	145
<b>cson_value</b>	
The core value type of this API	146
<b>cson_value_api</b>	
This type holds the "vtbl" for type-specific operations when working with <b>cson_value</b> (p. 146) objects	148
<b>cson_value_list</b>	149
<b>curfile64_info</b>	150
<b>currayhit</b>	150
<b>Curve</b>	151
<b>curveEvalMachine</b>	151
<b>Curvelist</b>	152
<b>damper_ptr</b>	152
<b>datChnk</b>	153
<b>dct_dc_size_entry</b>	153
<b>DDS_header</b>	153
<b>DdsLoadInfo</b>	154
<b>Dict</b>	155

DictNode	155
directedLine	156
DisplayList	157
freeWRLSAI_cpp::disposedException	157
Dlnode	158
draw_call_params	159
duk_bigint	159
duk_compile_raw_args	159
duk_compiler_stkstate	160
duk_decode_context	160
duk_encode_context	161
duk_exp_limits	161
duk_id_lookup_result	161
duk_numconv_stringify_ctx	162
duk_objlit_state	162
duk_pcall_prop_args	163
duk_re_disjunction_info	163
duk_transform_context	163
duk_activation	164
duk_bitdecoder_ctx	164
duk_bitencoder_ctx	164
duk_breakpoint	165
duk_bufwriter_ctx	165
duk_catcher	166
duk_compiler_ctx	166
duk_compiler_func	167
duk_compiler_instr	168
duk_double_union	168
duk_function_list_entry	169
duk_harray	169
duk_hbuffer	169
duk_hbuffer_dynamic	170
duk_hbuffer_external	170
duk_hbuffer_fixed	170
duk_hbufobj	171
duk_hcompfunc	171
duk_heap	172
duk_heaphdr	172
duk_heaphdr_string	173
duk_hnatfunc	173
duk_hobject	174
duk_hstring	174
duk_hstring_external	174
duk_hthread	175
duk_internal_thread_state	176
duk_ispec	176
duk_ivalue	176
duk_jmpbuf	177
duk_json_dec_ctx	177
duk_json_enc_ctx	178
duk_labelinfo	178
duk_lexer_codepoint	179
duk_lexer_ctx	179
duk_lexer_point	179
duk_ljstate	180
duk_memory_functions	180
duk_number_list_entry	181
duk_propaccessor	181

duk_propdesc	181
duk_propvalue	182
duk_re_compiler_ctx	182
duk_re_matcher_ctx	183
duk_re_token	183
duk_strcache	184
duk_strtab_entry	184
duk_thread_state	184
duk_time_components	185
duk_token	185
duk_tval_unused	186
EAI_Extra_Data	186
EAI_ListenerStruct	187
vrml.external.FreeWRLEAI.EAIAsyncMessage	187
sai.eai.EAIAsyncMessage	187
vrml.external.FreeWRLEAI.EAIAsyncQueue	188
sai.eai.EAIAsyncQueue	188
sai.eai.EAIAsyncThread	189
vrml.external.FreeWRLEAI.EAIAsyncThread	189
sai.eai.EAlinThread	190
vrml.external.FreeWRLEAI.EAlinThread	190
sai.eai.EAIMessage	191
vrml.external.FreeWRLEAI.EAIMessage	191
EAINodeIndexStruct	191
EAINodeParams	192
sai.eai.EAloutQueue	192
vrml.external.FreeWRLEAI.EAloutQueue	193
sai.eai.EAloutThread	193
vrml.external.FreeWRLEAI.EAloutThread	194
ECMAValueStruct	194
EdgePair	195
vrml.Event	195
vrml.external.field.EventIn	196
vrml.external.field.EventInMFColor	197
vrml.external.field.EventInMFFloat	197
vrml.external.field.EventInMFInt32	198
vrml.external.field.EventInMFNode	198
vrml.external.field.EventInMFRotation	199
vrml.external.field.EventInMFString	199
vrml.external.field.EventInMFVec2f	200
vrml.external.field.EventInMFVec3f	200
vrml.external.field.EventInSFBool	201
vrml.external.field.EventInSFColor	201
vrml.external.field.EventInSFFloat	202
vrml.external.field.EventInSFImage	202
vrml.external.field.EventInSFInt32	203
vrml.external.field.EventInSFNode	203
vrml.external.field.EventInSFRotation	204
vrml.external.field.EventInSFString	204
vrml.external.field.EventInSFTime	205
vrml.external.field.EventInSFVec2f	205
vrml.external.field.EventInSFVec3f	206
vrml.external.field.EventOut	206
vrml.external.field.EventOutMFColor	208
vrml.external.field.EventOutMFFloat	208
vrml.external.field.EventOutMField	209
vrml.external.field.EventOutMFInt32	210
vrml.external.field.EventOutMFNode	210

vrml.external.field.EventOutMFRotation	211
vrml.external.field.EventOutMFString	211
vrml.external.field.EventOutMFVec2f	212
vrml.external.field.EventOutMFVec3f	213
vrml.external.field.EventOutObserver	213
vrml.external.field.EventOutSFBool	214
vrml.external.field.EventOutSFColor	214
vrml.external.field.EventOutSFFloat	215
vrml.external.field.EventOutSFImage	215
vrml.external.field.EventOutSFInt32	216
vrml.external.field.EventOutSFNode	216
vrml.external.field.EventOutSFRotation	217
vrml.external.field.EventOutSFString	217
vrml.external.field.EventOutSFTime	218
vrml.external.field.EventOutSFVec2f	218
vrml.external.field.EventOutSFVec3f	219
org.web3d.x3d.sai.ExternalBrowser	219
extrusion	220
FaceCount	220
vrml.Field	221
FieldDecl	222
vrml.external.field.FieldTypes	222
file_in_zip64_read_info_s	223
FirstStruct	223
Flist	224
FlistSorter	224
flychord	225
fmtChnk	225
freewrl_params	
Initialization	226
sai.FreeWRLBrowser	226
sai.FreeWRLBrowserInfo	228
sai.FreeWRLComponent	229
sai.FreeWRLField	229
sai.FreeWRLFieldDefinition	231
sai.FreeWRLFieldTypes	232
sai.FreeWRLMField	232
sai.FreeWRLNode	234
sai.FreeWRLNodeTypes	234
sai.FreeWRLRendererInfo	235
sai.FreeWRLScene	236
ftype	237
fw_MaterialParameters	238
FWBITMAPFILEHEADER	238
FWBITMAPINFO	238
FWBITMAPINFOHEADER	239
sai.FWComponentInfo	239
vrml.FWCreateField	240
sai.FWExternProtoDeclaration	240
FWFunctionSpec	241
vrml.FWHelper	241
vrml.FWJavaScript	242
vrml.FWJavaScriptBinding	242
vrml.FWJavaScriptClassLoader	243
sai.FWMFColor	244
sai.FWMFColorRGBA	244
sai.FWMFDouble	245
sai.FWMFFloat	246

sai.FWMFInt32	247
sai.FWMFNode	247
sai.FWMFRotation	248
sai.FWMFString	249
sai.FWMFVec2d	250
sai.FWMFVec2f	250
sai.FWMFVec3d	251
sai.FWMFVec3f	252
sai.FWProfileInfo	253
sai.FWProfInfo	253
FWPropertySpec	254
sai.FWProtoDeclaration	254
sai.FWProtoInstance	255
FWRGBQUAD	255
sai.FWRoute	256
sai.FWSFBool	256
sai.FWSFColor	257
sai.FWSFColorRGBA	258
sai.FWSFDouble	258
sai.FWSFFloat	259
sai.FWSFImage	259
sai.FWSFInt32	260
sai.FWSFNode	261
sai.FWSFRotation	261
sai.FWSFString	262
sai.FWSFTime	262
sai.FWSFVec2d	263
sai.FWSFVec2f	264
sai.FWSFVec3d	264
sai.FWSFVec3f	265
FWSNDMSG	265
FWTYPE	266
FWVAL	266
FXV	267
GLUface	267
GLUhalfEdge	268
GLUmesh	268
GLUnurbs	268
GLUtesselator	269
GLUvertex	270
GLwDrawingAreaCallbackStruct	271
GLwDrawingAreaPart	271
GoP	272
gridBoundaryChain	272
Gridline	273
GridTrimVertex	273
GridVertex	274
gridWrap	274
GUIElement	275
GUINamedType	275
GUIScreen	275
Hull	276
vrml.external.IBrowser	276
iiglobal	278
IMEXPORT	280
org.web3d.x3d.sai.ImportedNodeException	281
initialRouteStruct	281
freeWRLSAI_cpp::insufficientCapabilitiesException	282



<code>org.web3d.x3d.sai.InsufficientCapabilitiesException</code>	282
<code>intersection_info</code>	283
<code>intTableIndex</code>	283
<code>freeWRLSAI_cpp::invalidAccessTypeException</code>	284
<code>freeWRLSAI_cpp::invalidBrowserException</code>	284
<code>org.web3d.x3d.sai.InvalidBrowserException</code>	285
<code>freeWRLSAI_cpp::invalidDocumentException</code>	285
<code>org.web3d.x3d.sai.InvalidDocumentException</code>	286
<code>vrml.InvalidEventInException</code>	286
<code>vrml.external.exception.InvalidEventInException</code>	287
<code>vrml.InvalidEventOutException</code>	288
<code>vrml.external.exception.InvalidEventOutException</code>	288
<code>freeWRLSAI_cpp::invalidExecutionContextException</code>	289
<code>org.web3d.x3d.sai.InvalidExecutionContextException</code>	289
<code>vrml.InvalidExposedFieldException</code>	290
<code>vrml.InvalidFieldChangeException</code>	290
<code>org.web3d.x3d.sai.InvalidFieldException</code>	291
<code>freeWRLSAI_cpp::invalidFieldException</code>	291
<code>vrml.InvalidFieldException</code>	292
<code>org.web3d.x3d.sai.InvalidFieldValueException</code>	292
<code>freeWRLSAI_cpp::invalidImportException</code>	293
<code>org.web3d.x3d.sai.InvalidNameException</code>	293
<code>org.web3d.x3d.sai.InvalidNodeException</code>	294
<code>freeWRLSAI_cpp::invalidNodeException</code>	294
<code>vrml.external.exception.InvalidNodeException</code>	295
<code>freeWRLSAI_cpp::invalidOperationTimingException</code>	296
<code>org.web3d.x3d.sai.InvalidOperationTimingException</code>	296
<code>org.web3d.x3d.sai.InvalidProtoException</code>	297
<code>freeWRLSAI_cpp::InvalidReadableFieldException</code>	297
<code>vrml.InvalidRouteException</code>	298
<code>org.web3d.x3d.sai.InvalidRouteException</code>	298
<code>freeWRLSAI_cpp::invalidUrlException</code>	299
<code>org.web3d.x3d.sai.InvalidURLException</code>	299
<code>vrml.external.exception.InvalidVrmlException</code>	300
<code>vrml.InvalidVRMLSyntaxException</code>	301
<code>freeWRLSAI_cpp::InvalidWritableFieldException</code>	301
<code>freeWRLSAI_cpp::invalidX3DException</code>	302
<code>org.web3d.x3d.sai.InvalidX3DException</code>	303
<code>vrml.InvalidX3DSyntaxException</code>	303
<code>ivec2</code>	304
<code>ivec4</code>	304
<code>Jarcloc</code>	304
<code>JMATRIX</code>	305
<code>JSLoadPropElement</code>	305
<code>JSON_config</code>	
The structure used to configure a JSON parser object	305
<code>JSON_parser_struct</code>	308
<code>JSON_value_struct</code>	308
<code>key</code>	309
<code>keyHit</code>	309
<code>keyval</code>	309
<code>Knotspec</code>	310
<code>Knotvector</code>	311
<code>layout_scale_item</code>	311
<code>layoutmode</code>	312
<code>linkedList_data_s</code>	312
<code>linkedList_datablock_internal_s</code>	312
<code>macroblock</code>	313

Mapdesc	313
Maplist	315
matpropstruct	315
org.web3d.x3d.sai.Matrix	316
org.web3d.x3d.sai.Matrix3	316
org.web3d.x3d.sai.Matrix4	317
mb_addr_inc_entry	318
mb_type_entry	318
Meshes	319
org.web3d.x3d.sai.MFBool	319
vrml.field.MFColor	320
org.web3d.x3d.sai.MFColor	321
org.web3d.x3d.sai.MFColorRGBA	322
org.web3d.x3d.sai.MFDouble	322
org.web3d.x3d.sai.MFFloat	323
vrml.field.MFFloat	324
org.web3d.x3d.sai.MField	325
vrml.MField	326
org.web3d.x3d.sai.MFImage	327
org.web3d.x3d.sai.MFInt32	328
vrml.field.MFInt32	328
org.web3d.x3d.sai.MFNode	329
vrml.field.MFNode	330
org.web3d.x3d.sai.MFRotation	331
vrml.field.MFRotation	332
org.web3d.x3d.sai.MFString	333
vrml.field.MFString	333
vrml.field.MFTime	334
org.web3d.x3d.sai.MFTime	335
org.web3d.x3d.sai.MFVec2d	336
vrml.field.MFVec2f	337
org.web3d.x3d.sai.MFVec2f	338
org.web3d.x3d.sai.MFVec3d	339
vrml.field.MFVec3f	339
org.web3d.x3d.sai.MFVec3f	340
mode_name	341
monoChain	342
Monotonizer	342
motion_vectors_entry	343
Multi_Any	343
Multi_Bool	343
Multi_Color	344
Multi_ColorRGBA	344
Multi_Double	345
Multi_Float	345
Multi_Int32	345
Multi_Matrix3d	346
Multi_Matrix3f	346
Multi_Matrix4d	347
Multi_Matrix4f	347
Multi_Node	347
Multi_Rotation	348
Multi_String	348
Multi_Time	349
Multi_Vec2d	349
Multi_Vec2f	349
Multi_Vec3d	350
Multi_Vec3f	350

<b>Multi_Vec4d</b>	351
<b>Multi_Vec4f</b>	351
<b>multiTexParams</b>	351
<b>myArgs</b>	352
<b>MyVertex</b>	352
<b>name_num</b>	353
<b>navmode</b>	353
<b>vrml.node.Node</b>	353
<b>vrml.external.Node</b>	354
<b>nodedistance</b>	355
<b>freeWRLSAI_cpp::nodeInUseException</b>	355
<b>org.web3d.x3d.sai.NodeInUseException</b>	356
<b>freeWRLSAI_cpp::nodeUnavailableException</b>	356
<b>org.web3d.x3d.sai.NodeUnavailableException</b>	357
<b>freeWRLSAI_cpp::noSuchBrowserException</b>	357
<b>org.web3d.x3d.sai.NoSuchBrowserException</b>	358
<b>freeWRLSAI_cpp::notSupportedException</b>	358
<b>org.web3d.x3d.sai.NotSupportedException</b>	359
<b>NPClass</b>	359
<b>NPObject</b>	360
<b>nsByteRange</b>	360
<b>nsIAuthenticationInfo</b>	361
<b>nsICookieStorage</b>	361
<b>nsIFileUtilities</b>	
The <b>nsIFileUtilities</b> (p. 362) interface provides access to random file operations	362
<b>nsIHTTPHeaderListener</b>	
The <b>nsIHTTPHeaderListener</b> (p. 364) interface allows plugin authors to access HTTP Response headers after issuing an <b>nsIPluginHost</b> (p. 371)::{GetURL,PostURL}() call	364
<b>nsIJVMAuthTools</b>	366
<b>nsIPlugin</b>	367
<b>nsIPluginDocument</b>	370
<b>nsIPluginHost</b>	371
<b>nsIPluginHostOld</b>	376
<b>nsIPluginInputStream</b>	
The <b>nsIPluginInputStream</b> (p. 378) interface ..	378
<b>nsIPluginInstance</b>	378
<b>nsIPluginInstanceInternal</b>	384
<b>nsIPluginInstanceOld</b>	
The <b>nsIPluginInstance</b> (p. 378) interface is the minimum interface plugin developers need to support in order to implement a plugin instance	385
<b>nsIPluginInstanceOwner</b>	390
<b>nsIPluginInstancePeer</b>	
The <b>nsIPluginInstancePeer</b> (p. 392) interface is the set of operations implemented by the browser to support a plugin instance	392
<b>nsIPluginInstancePeer2</b>	
The <b>nsIPluginInstancePeer2</b> (p. 396) interface extends the <b>nsIPluginInstancePeer</b> (p. 392) interface, providing access to functionality provided by newer browsers	396
<b>nsIPluginInstancePeer2_1_9_1_BRANCH</b>	398
<b>nsIPluginManager</b>	399
<b>nsIPluginManager2</b>	
Plugin Manager 2 Interface These extensions to <b>nsIPluginManager</b> (p. 399) are only available in Communicator 5.0	404
<b>nsIPluginOld</b>	
The <b>nsIPlugin</b> (p. 367) interface is the minimum interface plugin developers need to support in order to implement a plugin	409
<b>nsIPluginStreamInfo</b>	
NsIPluginStreamInfo	411

<b>nsIPluginStreamListener</b>	
NsIPluginStreamListener . . . . .	412
<b>nsIPluginTag</b> . . . . .	415
<b>nsIPluginTagInfo</b>	
Plugin Tag Info Interface This interface provides information about the HTML tag on the page . . . . .	416
<b>nsIPluginTagInfo2</b>	
NsIPluginTagInfo2 . . . . .	419
<b>nsIPluginTagInfoOld</b>	
Plugin Tag Info Interface This interface provides information about the HTML tag on the page . . . . .	423
<b>nsIScriptablePlugin</b>	
Interface for exposing scriptable plugin methods to JavaScript via XPCConnect . . . . .	424
<b>nsIWindowlessPluginInstancePeer</b> . . . . .	425
<b>nsPIPluginInstancePeer</b> . . . . .	426
<b>nsPluginEmbedPrint</b> . . . . .	426
<b>nsPluginEvent</b> . . . . .	427
<b>nsPluginFullPrint</b> . . . . .	427
<b>nsPluginLogging</b> . . . . .	428
<b>nsPluginNativeWindow</b>	
Base class for native plugin window implementations . . . . .	428
<b>nsPluginPrint</b> . . . . .	430
<b>nsPluginRect</b> . . . . .	430
<b>nsPluginWindow</b> . . . . .	431
<b>NurbsTessellator</b> . . . . .	431
<b>O_curve</b> . . . . .	433
<b>O_nurbscurve</b> . . . . .	433
<b>O_nurbssurface</b> . . . . .	434
<b>O_pwlcurve</b> . . . . .	435
<b>O_surface</b> . . . . .	435
<b>O_trim</b> . . . . .	436
<b>OpenGLCurveEvaluator</b> . . . . .	436
<b>OpenGLSurfaceEvaluator</b> . . . . .	438
<b>opened_file</b> . . . . .	439
<b>orient_XYZA</b> . . . . .	440
<b>particle</b> . . . . .	440
<b>Patch</b> . . . . .	440
<b>Patchlist</b> . . . . .	441
<b>Patchspec</b> . . . . .	442
<b>pBindable</b> . . . . .	442
<b>pcollision</b> . . . . .	443
<b>pcommon</b> . . . . .	443
<b>pComponent_CubeMapTexturing</b> . . . . .	444
<b>pComponent_EnvironSensor</b> . . . . .	444
<b>pComponent_Followers</b> . . . . .	445
<b>pComponent_Geometry3D</b> . . . . .	445
<b>pComponent_Geospatial</b> . . . . .	445
<b>pComponent_HAnim</b> . . . . .	446
<b>pComponent_KeyDevice</b> . . . . .	446
<b>pComponent_Layering</b> . . . . .	446
<b>pComponent_Layout</b> . . . . .	447
<b>pComponent_NURBS</b> . . . . .	447
<b>pComponent_ParticleSystems</b> . . . . .	447
<b>pComponent_Picking</b> . . . . .	448
<b>pComponent_ProgrammableShaders</b> . . . . .	448
<b>pComponent_Rendering</b> . . . . .	448
<b>pComponent_RigidBodyPhysics</b> . . . . .	449
<b>pComponent_Shape</b> . . . . .	449
<b>pComponent_Sound</b> . . . . .	449
<b>pComponent_Text</b> . . . . .	450

pComponent_VolumeRendering	451
pConsoleMessage	451
pCParse	452
pCParseParser	452
pCRoutes	453
pCScripts	453
pCursorDraw	454
pdisplay	454
pEAI_C_CommonFunctions	454
pEAICore	455
pEAIEventsIn	455
pEAHelpers	455
pedal_state	456
pFrustum	456
pict	456
pict_image	457
pJScript	457
pjsUtils	458
pjsVRMLBrowser	458
pjsVRMLClasses	458
pLoadTextures	459
pMainloop	459
Point	460
point_XYZ	461
point_XYZ3	461
pointer2pointer	461
polygon	462
polyrep_combiner_data	462
Pool	462
PooledObj	463
pOpenGL_Utils	464
pPluginSocket	465
ppluginUtils	465
pProdCon	465
PQhandleElem	466
PQnode	466
pRasterFont	466
pRenderFuncs	467
pRenderTextures	468
presources	468
primStream	469
PriorityQ	469
profile_entry	470
org.web3d.x3d.sai.ProfileInfo	470
proftablestruct	471
Property	471
ProtoDefinition	472
ProtoFieldDecl	472
pSensInterps	473
pSnapshot	473
Pspec	473
PSStruct	474
pstatusbar	474
pStreamPoly	475
pTess	475
pTextures	475
pViewer	476
PwlArc	476

pX3DParser	477
quaternion	478
Quilt	478
QuiltSpec	479
rb1	479
rectBlock	480
rectBlockArray	480
reflexChain	481
RenderHints	481
resource_item	482
row32	482
s_renderer_capabilities_t	483
s_shader_capabilities	484
freeWRLSAI_cpp::saiBrowser	485
freeWRLSAI_cpp::saiComponent	486
freeWRLSAI_cpp::saiCustomException	486
freeWRLSAI_cpp::saiException	487
freeWRLSAI_cpp::saiExecutionContext	488
freeWRLSAI_cpp::saiField	488
freeWRLSAI_cpp::saiNode	489
freeWRLSAI_cpp::saiProfileDeclaration	489
freeWRLSAI_cpp::saiProto	490
freeWRLSAI_cpp::saiRoute	490
freeWRLSAI_cpp::saiScene	491
sampledLine	491
sCollisionGeometry	492
sCollisionInfo	492
screenTextData	492
vrml.node.Script	493
ScriptablePluginObjectBase	494
ScriptFieldDecl	495
ScriptFieldInstanceInfo	495
ScriptParamList	496
SensStruct	496
sFallInfo	497
org.web3d.x3d.sai.SFBool	497
vrml.field.SFBool	498
SFColor	499
org.web3d.x3d.sai.SFColor	499
vrml.field.SFColor	500
SFColorRGBA	500
org.web3d.x3d.sai.SFColorRGBA	501
org.web3d.x3d.sai.SFDouble	501
vrml.field.SFFloat	502
org.web3d.x3d.sai.SFFloat	503
vrml.field.SFImage	503
org.web3d.x3d.sai.SFImage	504
vrml.field.SFInt32	505
org.web3d.x3d.sai.SFInt32	505
SFMatrix3d	506
SFMatrix3f	506
SFMatrix4d	507
SFMatrix4f	507
vrml.field.SFNode	507
org.web3d.x3d.sai.SFNode	508
SFRotation	509
vrml.field.SFRotation	509
org.web3d.x3d.sai.SFRotation	510

vrml.field.SFString	510
org.web3d.x3d.sai.SFString	511
vrml.field.SFTime	511
org.web3d.x3d.sai.SFTime	512
org.web3d.x3d.sai.SFVec2d	513
SFVec2d	513
SFVec2f	513
vrml.field.SFVec2f	514
org.web3d.x3d.sai.SFVec2f	515
org.web3d.x3d.sai.SFVec3d	515
SFVec3d	516
org.web3d.x3d.sai.SFVec3f	516
vrml.field.SFVec3f	517
SFVec3f	517
SFVec4d	518
SFVec4f	518
Shader_Script	518
shaderflagsstruct	519
shaderTableEntry	519
slice	519
Slicer	520
sNavInfo	521
SNDFILE	521
Sorter	521
Splinespec	522
ssr	523
SSR_request	523
stage	524
StoredVertex	524
Subdivider	525
surfEvalMachine	525
sweepRange	526
targetwindow	526
iiglobal::tBindable	527
iiglobal::tcollision	527
iiglobal::tcommon	527
iiglobal::tComponent_CubeMapTexturing	528
iiglobal::tComponent_EnvironSensor	528
iiglobal::tComponent_Followers	528
iiglobal::tComponent_Geometry3D	529
iiglobal::tComponent_Geospatial	529
iiglobal::tComponent_HAnim	529
iiglobal::tComponent_KeyDevice	530
iiglobal::tComponent_Layering	530
iiglobal::tComponent_Layout	530
iiglobal::tComponent_NURBS	531
iiglobal::tComponent_ParticleSystems	531
iiglobal::tComponent_Picking	531
iiglobal::tComponent_ProgrammableShaders	532
iiglobal::tComponent_Rendering	532
iiglobal::tComponent_RigidBodyPhysics	532
iiglobal::tComponent_Shape	533
iiglobal::tComponent_Sound	533
iiglobal::tComponent_Text	533
iiglobal::tComponent_VolumeRendering	534
iiglobal::tComponent_VRML1	534
iiglobal::tConsoleMessage	534
tcontenttype	535

iiglobal::tCParse	535
iiglobal::tCParseParser	536
iiglobal::tCRoutes	536
iiglobal::tCScripts	536
iiglobal::tCursorDraw	537
iiglobal::tdisplay	537
iiglobal::tEAI_C_CommonFunctions	537
iiglobal::tEAICore	538
iiglobal::tEAIEventsIn	538
iiglobal::tEAHelpers	538
text_combiner_data	539
textureTableIndexStruct	539
textureVertexInfo	540
iiglobal::tFrustum	540
iiglobal::tinternalc	541
iiglobal::tJScript	541
iiglobal::tjsUtils	541
iiglobal::tjsVRMLBrowser	542
iiglobal::tjsVRMLClasses	542
iiglobal::tLoadTextures	542
tm_unz_s	543
tm_zip_s	543
iiglobal::tMainloop	544
iiglobal::tOpenGL_Utils	544
Touch	545
iiglobal::tPluginSocket	546
iiglobal::tpluginUtils	546
iiglobal::tProdCon	546
treeNode	547
iiglobal::tRenderFuncs	547
trenderstate	548
iiglobal::tRenderTextures	548
iiglobal::tresources	549
Trimline	549
TrimRegion	550
TrimVertex	550
TrimVertexPool	551
iiglobal::tSensInterps	551
iiglobal::tSnapshot	551
iiglobal::tstatusbar	552
iiglobal::tStreamPoly	552
iiglobal::tTess	552
iiglobal::tTextures	553
iiglobal::tthreads	553
iiglobal::tViewer	554
iiglobal::tX3DParser	554
Uarray	554
un1	555
Uni_String	555
sai.eai.UnsupportedFieldTypeException	556
vrml.external.FreeWRLEAI.UnsupportedFieldTypeException	556
unz64_file_pos_s	557
unz64_s	557
unz_file_info64_internal_s	558
unz_file_info64_s	558
unz_file_info_s	559
unz_file_pos_s	559
unz_global_info64_s	559



unz_global_info_s	560
org.web3d.x3d.sai.URLUnavailableException	560
freeWRLSAI_cpp::urlUnavailableException	561
usehit	561
Varray	562
vec2	562
vec4	562
Vector	563
vertexArray	563
sai.eai.VField	564
vrml.external.FreeWRLEAI.VField	565
vid_stream	567
viewer	568
viewer_examine	570
viewer_fly	570
viewer_inplane	570
viewer_walk	571
viewer_ypz	571
sai.eai.VIP	572
vrml.external.FreeWRLEAI.VIP	572
sai.eai.VMFCColor	573
vrml.external.FreeWRLEAI.VMFCColor	574
sai.eai.VMFFloat	575
vrml.external.FreeWRLEAI.VMFFloat	575
sai.eai.VMFInt32	576
vrml.external.FreeWRLEAI.VMFInt32	576
sai.eai.VMFRotation	577
vrml.external.FreeWRLEAI.VMFRotation	578
vrml.external.FreeWRLEAI.VMFString	578
sai.eai.VMFString	579
vrml.external.FreeWRLEAI.VMFVec2f	579
sai.eai.VMFVec2f	580
vrml.external.FreeWRLEAI.VMFVec3f	581
sai.eai.VMFVec3f	581
void3	582
VRMLLexer	582
sai.eai.VRMLObject	583
vrml.external.FreeWRLEAI.VRMLObject	584
vrml.external.FreeWRLEAI.VRMLObjectObserver	584
sai.eai.VRMLObjectObserver	585
VRMLParser	585
sai.eai.VSFBool	586
vrml.external.FreeWRLEAI.VSFBool	586
sai.eai.VSFColor	587
vrml.external.FreeWRLEAI.VSFColor	587
vrml.external.FreeWRLEAI.VSFFloat	588
sai.eai.VSFFloat	589
vrml.external.FreeWRLEAI.VSFImage	589
sai.eai.VSFImage	590
sai.eai.VSFInt32	590
vrml.external.FreeWRLEAI.VSFInt32	591
sai.eai.VSFRotation	592
vrml.external.FreeWRLEAI.VSFRotation	592
sai.eai.VSFString	593
vrml.external.FreeWRLEAI.VSFString	593
sai.eai.VSFTime	594
vrml.external.FreeWRLEAI.VSFTime	595
sai.eai.VSFVec2f	595

vrml.external.FreeWRLEAI.VSFVec2f	596
vrml.external.FreeWRLEAI.VSFVec3f	596
sai.eai.VSFVec3f	597
walk_cbdata	598
WEB3DNATIVE	598
X3D_Anchor	599
X3D_Appearance	600
X3D_Arc2D	600
X3D_ArcClose2D	601
X3D_AudioClip	602
X3D_BackdropBackground	603
X3D_Background	603
X3D_BallJoint	604
X3D_Billboard	605
X3D_BlendedVolumeStyle	606
X3D_BooleanFilter	607
X3D_BooleanSequencer	607
X3D_BooleanToggle	608
X3D_BooleanTrigger	608
X3D_BoundaryEnhancementVolumeStyle	609
X3D_BoundedPhysicsModel	610
X3D_Box	610
X3D_CADAssembly	611
X3D_CADFace	612
X3D_CADLayer	612
X3D_CADPart	613
X3D_CalibratedCameraSensor	614
X3D_CartoonVolumeStyle	614
X3D_Circle2D	615
X3D_ClipPlane	615
X3D_CollidableOffset	616
X3D_CollidableShape	617
X3D_Collision	617
X3D_CollisionCollection	618
X3D_CollisionSensor	619
X3D_CollisionSpace	620
X3D_Color	620
X3D_ColorChaser	621
X3D_ColorDamper	622
X3D_ColorInterpolator	623
X3D_ColorRGBA	623
X3D_ComposedCubeMapTexture	624
X3D_ComposedShader	625
X3D_ComposedTexture3D	625
X3D_ComposedVolumeStyle	626
X3D_CompositeVolumeStyle	627
X3D_Cone	627
X3D_ConeEmitter	628
X3D_Contact	629
X3D_Contour2D	630
X3D_ContourPolyline2D	630
X3D_Coordinate	631
X3D_CoordinateChaser	631
X3D_CoordinateDamper	632
X3D_CoordinateDouble	633
X3D_CoordinateInterpolator	634
X3D_CoordinateInterpolator2D	634
X3D_Cylinder	635

X3D_CylinderSensor	636
X3D_DirectionalLight	637
X3D_DISEntityManager	637
X3D_DISEntityTypeMapping	638
X3D_Disk2D	639
X3D_DoubleAxisHingeJoint	640
X3D_EaseInEaseOut	641
X3D_EdgeEnhancementVolumeStyle	642
X3D_Effect	642
X3D_EffectPart	643
X3D_ElevationGrid	644
X3D_EspduTransform	645
X3D_ExplosionEmitter	647
X3D_Extrusion	648
X3D_FillProperties	649
X3D_FloatVertexAttribute	649
X3D_Fog	650
X3D_FogCoordinate	651
X3D_FontStyle	651
X3D_ForcePhysicsModel	652
X3D_GeneratedCubeMapTexture	653
X3D_GeoCoordinate	653
X3D_GeoElevationGrid	654
X3D_GeoLocation	655
X3D_GeoLOD	656
X3D_GeoMetadata	657
X3D_GeoOrigin	657
X3D_GeoPositionInterpolator	658
X3D_GeoProximitySensor	659
X3D_GeoTouchSensor	660
X3D_GeoTransform	661
X3D_GeoViewpoint	662
X3D_Group	663
X3D_HAnimDisplacer	663
X3D_HAnimHumanoid	664
X3D_HAnimJoint	665
X3D_HAnimSegment	666
X3D_HAnimSite	667
X3D_ImageBackdropBackground	668
X3D_ImageCubeMapTexture	668
X3D_ImageTexture	669
X3D_ImageTexture3D	670
X3D_IndexedFaceSet	670
X3D_IndexedLineSet	671
X3D_IndexedQuadSet	672
X3D_IndexedTriangleFanSet	673
X3D_IndexedTriangleSet	674
X3D_IndexedTriangleStripSet	674
X3D_Inline	675
X3D_IntegerSequencer	676
X3D_IntegerTrigger	677
X3D_IsoSurfaceVolumeData	678
X3D_KeySensor	678
X3D_Layer	679
X3D_LayerSet	680
X3D_Layout	681
X3D_LayoutGroup	681
X3D_LayoutLayer	682

X3D_LinePickSensor	683
X3D_LineProperties	684
X3D_LineSensor	684
X3D_LineSet	685
X3D_LoadSensor	686
X3D_LocalFog	687
X3D_LOD	687
X3D_Material	688
X3D_Matrix3VertexAttribute	689
X3D_Matrix4VertexAttribute	689
X3D_MetadataBoolean	690
X3D_MetadataDouble	691
X3D_MetadataFloat	691
X3D_MetadataInteger	692
X3D_MetadataMFBool	693
X3D_MetadataMFColor	693
X3D_MetadataMFColorRGBA	694
X3D_MetadataMFDouble	695
X3D_MetadataMFFloat	695
X3D_MetadataMFInt32	696
X3D_MetadataMFMatrix3d	697
X3D_MetadataMFMatrix3f	697
X3D_MetadataMFMatrix4d	698
X3D_MetadataMFMatrix4f	699
X3D_MetadataMFNode	699
X3D_MetadataMFRotation	700
X3D_MetadataMFString	701
X3D_MetadataMFTime	701
X3D_MetadataMFVec2d	702
X3D_MetadataMFVec2f	703
X3D_MetadataMFVec3d	703
X3D_MetadataMFVec3f	704
X3D_MetadataMFVec4d	705
X3D_MetadataMFVec4f	705
X3D_MetadataSet	706
X3D_MetadataSFBool	707
X3D_MetadataSFColor	707
X3D_MetadataSFColorRGBA	708
X3D_MetadataSFDouble	709
X3D_MetadataSFFloat	709
X3D_MetadataSFImage	710
X3D_MetadataSFInt32	711
X3D_MetadataSFMatrix3d	711
X3D_MetadataSFMatrix3f	712
X3D_MetadataSFMatrix4d	713
X3D_MetadataSFMatrix4f	713
X3D_MetadataSFNode	714
X3D_MetadataSFRotation	715
X3D_MetadataSFString	715
X3D_MetadataSFTime	716
X3D_MetadataSFVec2d	717
X3D_MetadataSFVec2f	717
X3D_MetadataSFVec3d	718
X3D_MetadataSFVec3f	719
X3D_MetadataSFVec4d	719
X3D_MetadataSFVec4f	720
X3D_MetadataString	721
X3D_MotorJoint	721

X3D_MovieTexture	723
X3D_MultiTexture	724
X3D_MultiTextureCoordinate	724
X3D_MultiTextureTransform	725
X3D_NavigationInfo	725
X3D_Node	726
X3D_Normal	727
X3D_NormalInterpolator	727
X3D_NurbsCurve	728
X3D_NurbsCurve2D	729
X3D_NurbsOrientationInterpolator	729
X3D_NurbsPatchSurface	730
X3D_NurbsPositionInterpolator	731
X3D_NurbsSet	732
X3D_NurbsSurfaceInterpolator	732
X3D_NurbsSweptSurface	733
X3D_NurbsSwungSurface	734
X3D_NurbsTextureCoordinate	735
X3D_NurbsTrimmedSurface	735
X3D_OpacityMapVolumeStyle	736
X3D_OrientationChaser	737
X3D_OrientationDamper	738
X3D_OrientationInterpolator	739
X3D_OrthoViewpoint	739
X3D_OSC_Sensor	740
X3D_PackagedShader	741
X3D_ParticleSystem	742
X3D_PickableGroup	743
X3D_PixelTexture	744
X3D_PixelTexture3D	744
X3D_PlaneSensor	745
X3D_PointEmitter	746
X3D_PointLight	747
X3D_PointPickSensor	747
X3D_PointSet	748
X3D_Polyline2D	749
X3D_PolylineEmitter	750
X3D_Polypoint2D	750
X3D_PolyRep	751
X3D_PositionChaser	752
X3D_PositionChaser2D	753
X3D_PositionDamper	754
X3D_PositionDamper2D	755
X3D_PositionInterpolator	756
X3D_PositionInterpolator2D	756
X3D_PrimitivePickSensor	757
X3D_ProgramShader	758
X3D_ProjectionVolumeStyle	758
X3D_Proto	759
X3D_ProximitySensor	760
X3D_QuadSet	761
X3D_ReceiverPdu	761
X3D_Rectangle2D	763
X3D_RigidBody	763
X3D_RigidBodyCollection	764
X3D_ScalarChaser	765
X3D_ScalarDamper	766
X3D_ScalarInterpolator	767

X3D_ScreenFontStyle	768
X3D_ScreenGroup	768
X3D_Script	769
X3D_SegmentedVolumeData	770
X3D_ShadedVolumeStyle	770
X3D_ShaderPart	771
X3D_ShaderProgram	772
X3D_Shape	772
X3D_SignalPdu	773
X3D_SilhouetteEnhancementVolumeStyle	774
X3D_SingleAxisHingeJoint	775
X3D_SliderJoint	776
X3D_Sound	777
X3D_Sphere	777
X3D_SphereSensor	778
X3D_SplinePositionInterpolator	779
X3D_SplinePositionInterpolator2D	780
X3D_SplineScalarInterpolator	780
X3D_SpotLight	781
X3D_SquadOrientationInterpolator	782
X3D_StaticGroup	783
X3D_StringSensor	783
X3D_SurfaceEmitter	784
X3D_Switch	785
X3D_Teapot	786
X3D_TexCoordChaser2D	786
X3D_TexCoordDamper2D	787
X3D_Text	788
X3D_TextureBackground	789
X3D_TextureCoordinate	790
X3D_TextureCoordinate3D	790
X3D_TextureCoordinate4D	791
X3D_TextureCoordinateGenerator	791
X3D_TextureProperties	792
X3D_TextureTransform	793
X3D_TextureTransform3D	793
X3D_TextureTransformMatrix3D	794
X3D_TimeSensor	794
X3D_TimeTrigger	795
X3D_ToneMappedVolumeStyle	796
X3D_TouchSensor	797
X3D_TrackingSensor	797
X3D_Transform	798
X3D_TransformSensor	799
X3D_TransmitterPdu	800
X3D_TriangleFanSet	801
X3D_TriangleSet	802
X3D_TriangleSet2D	803
X3D_TriangleStripSet	803
X3D_TwoSidedMaterial	804
X3D_UniversalJoint	805
X3D_Viewpoint	806
X3D_ViewpointGroup	807
X3D_Viewport	807
X3D_Virt	808
X3D_VisibilitySensor	809
X3D_VolumeData	809
X3D_VolumeEmitter	810

X3D_VolumePickSensor	811
X3D_WindPhysicsModel	812
X3D_WorldInfo	812
org.web3d.x3d.sai.X3DAppearanceChildNode	813
org.web3d.x3d.sai.X3DAppearanceNode	813
org.web3d.x3d.sai.X3DAudioClipNode	814
org.web3d.x3d.sai.X3DBackgroundNode	814
org.web3d.x3d.sai.X3DBindableNode	815
org.web3d.x3d.sai.X3DBoundedObject	816
org.web3d.x3d.sai.X3DChildNode	816
org.web3d.x3d.sai.X3DColorNode	817
org.web3d.x3d.sai.X3DComponent	817
org.web3d.x3d.sai.X3DComposedGeometryNode	818
org.web3d.x3d.sai.X3DCoordinateNode	819
org.web3d.x3d.sai.X3DDragSensorNode	819
org.web3d.x3d.sai.X3DEnvironmentalSensorNode	820
org.web3d.x3d.sai.X3DException	821
org.web3d.x3d.sai.X3DExecutionContext	822
org.web3d.x3d.sai.X3DExternProtoDeclaration	823
org.web3d.x3d.sai.X3DField	823
org.web3d.x3d.sai.X3DFieldDefinition	825
org.web3d.x3d.sai.X3DFieldEvent	825
org.web3d.x3d.sai.X3DFieldEventListener	826
org.web3d.x3d.sai.X3DFieldTypes	826
org.web3d.x3d.sai.X3DFontStyleNode	827
org.web3d.x3d.sai.X3DGeometricPropertyNode	828
org.web3d.x3d.sai.X3DGeometryNode	828
org.web3d.x3d.sai.X3DGroupingNode	829
org.web3d.x3d.sai.X3DInfoNode	829
org.web3d.x3d.sai.X3DInterpolatorNode	830
org.web3d.x3d.sai.X3DKeyDeviceSensorNode	830
org.web3d.x3d.sai.X3DLightNode	831
org.web3d.x3d.sai.X3DMaterialNode	832
org.web3d.x3d.sai.X3DMetadataObject	832
org.web3d.x3d.sai.X3DNetworkSensorNode	833
org.web3d.x3d.sai.X3DNode	833
org.web3d.x3d.sai.X3DNodeTypes	834
org.web3d.x3d.sai.X3DNormalNode	835
org.web3d.x3d.sai.X3DParametricGeometryNode	836
org.web3d.x3d.sai.X3DPerFrameObserverScript	836
org.web3d.x3d.sai.X3DPointingDeviceSensorNode	837
org.web3d.x3d.sai.X3DProtoDeclaration	837
org.web3d.x3d.sai.X3DProtoInstance	838
org.web3d.x3d.sai.X3DRoute	838
org.web3d.x3d.sai.X3DScene	839
org.web3d.x3d.sai.X3DScriptImplementation	840
org.web3d.x3d.sai.X3DScriptNode	840
org.web3d.x3d.sai.X3DSensorNode	841
org.web3d.x3d.sai.X3DSequencerNode	841
org.web3d.x3d.sai.X3DShapeNode	842
org.web3d.x3d.sai.X3DSoundNode	842
org.web3d.x3d.sai.X3DSoundSourceNode	843
org.web3d.x3d.sai.X3DTextNode	843
org.web3d.x3d.sai.X3DTexture2DNode	844
org.web3d.x3d.sai.X3DTextureCoordinateNode	844
org.web3d.x3d.sai.X3DTextureNode	845
org.web3d.x3d.sai.X3DTextureTransform2DNode	845
org.web3d.x3d.sai.X3DTextureTransformNode	846

<code>org.web3d.x3d.sai.X3DTimeDependentNode</code> . . . . .	847
<code>org.web3d.x3d.sai.X3DTouchSensorNode</code> . . . . .	848
<code>org.web3d.x3d.sai.X3DTriggerNode</code> . . . . .	848
<code>org.web3d.x3d.sai.X3DUrlObject</code> . . . . .	849
<code>xml_user_data</code> . . . . .	849
<code>XY</code> . . . . .	850
<code>zip64_internal</code> . . . . .	850
<code>zip_fileinfo</code> . . . . .	851
<code>zlib_filefunc64_32_def_s</code> . . . . .	851
<code>zlib_filefunc64_def_s</code> . . . . .	851
<code>zlib_filefunc_def_s</code> . . . . .	852
<code>zone</code> . . . . .	852



## Chapter 4

# Data Structure Documentation

### 4.1 `_BrowserNative` Struct Reference

#### Data Fields

- int **dummyEntry**

#### 4.1.1 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

### 4.2 `_cd_list_t` Struct Reference

#### Data Fields

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

#### 4.2.1 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

## 4.3 `_CRnodeStruct` Struct Reference

### Data Fields

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

### 4.3.1 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`

## 4.4 `_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`

### 4.4.1 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`

## 4.5 \_GLWDrawingAreaClassPart Struct Reference

### Data Fields

- `caddr_t` **extension**

#### 4.5.1 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`

## 4.6 \_GLWDrawingAreaClassRec Struct Reference

### Data Fields

- `CoreClassPart` **core\_class**
- `GLWDrawingAreaClassPart` **glwDrawingArea\_class**

#### 4.6.1 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`

## 4.7 \_GLWDrawingAreaRec Struct Reference

### Data Fields

- `CorePart` **core**
- `GLWDrawingAreaPart` **glwDrawingArea**

#### 4.7.1 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`

## 4.8 `_intX3D_MFBool` Struct Reference

### Data Fields

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

### 4.8.1 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`

## 4.9 `_intX3D_MFColor` Struct Reference

### Data Fields

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

### 4.9.1 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`

## 4.10 `_intX3D_MFColorRGBA` Struct Reference

### Data Fields

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

### 4.10.1 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`

## 4.11 \_intX3D\_MFFloat Struct Reference

### Data Fields

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

### 4.11.1 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

## 4.12 \_intX3D\_MFImage Struct Reference

### Data Fields

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

### 4.12.1 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

## 4.13 \_intX3D\_MFInt32 Struct Reference

### Data Fields

- int **type**
- int **n**
- **\_intX3D\_SFInt32 \* p**

### 4.13.1 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

## 4.14 `_intX3D_MFNode` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFNode * p`

### 4.14.1 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`

## 4.15 `_intX3D_MFRotation` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFRotation * p`

### 4.15.1 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`

## 4.16 `_intX3D_MFString` Struct Reference

### Data Fields

- `int type`
- `int n`
- `_intX3D_SFString * p`

### 4.16.1 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`

## 4.17 `_intX3D_MFTime` Struct Reference

### Data Fields

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

### 4.17.1 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`

## 4.18 `_intX3D_MFVec2d` Struct Reference

### Data Fields

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

### 4.18.1 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`

## 4.19 `_intX3D_MFVec2f` Struct Reference

### Data Fields

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

### 4.19.1 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`

## 4.20 `_intX3D_MFVec3d` Struct Reference

### Data Fields

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

### 4.20.1 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`

## 4.21 `_intX3D_MFVec3f` Struct Reference

### Data Fields

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

### 4.21.1 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`

## 4.22 `_intX3D_SFBool` Struct Reference

### Data Fields

- `int type`
- `int value`

### 4.22.1 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`



## 4.23 \_intX3D\_SFColor Struct Reference

### Data Fields

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

#### 4.23.1 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

## 4.24 \_intX3D\_SFColorRGBA Struct Reference

### Data Fields

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

#### 4.24.1 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

## 4.25 \_intX3D\_SFFloat Struct Reference

### Data Fields

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

#### 4.25.1 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

## 4.26 `_intX3D_SFImage` Struct Reference

### Data Fields

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

### 4.26.1 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

## 4.27 `_intX3D_SFInt32` Struct Reference

### Data Fields

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

### 4.27.1 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

## 4.28 `_intX3D_SFNode` Struct Reference

### Data Fields

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

### 4.28.1 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

## 4.29 \_intX3D\_SFRotation Struct Reference

### Data Fields

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

#### 4.29.1 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

## 4.30 \_intX3D\_SFString Struct Reference

### Data Fields

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

#### 4.30.1 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

## 4.31 \_intX3D\_SFTime Struct Reference

### Data Fields

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

#### 4.31.1 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

## 4.32 `_intX3D_SFVec2d` Struct Reference

### Data Fields

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

#### 4.32.1 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

## 4.33 `_intX3D_SFVec2f` Struct Reference

### Data Fields

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

#### 4.33.1 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

## 4.34 `_intX3D_SFVec3d` Struct Reference

### Data Fields

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

#### 4.34.1 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

## 4.35 `_intX3D_SFVec3f` Struct Reference

### Data Fields

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

#### 4.35.1 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`

## 4.36 `_intX3DEventIn` Struct Reference

### Data Fields

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

#### 4.36.1 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`

## 4.37 `_NPByteRange` Struct Reference

### Data Fields

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

#### 4.37.1 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

### 4.38 \_NPEmbedPrint Struct Reference

#### Data Fields

- **NPWindow window**
- void \* **platformPrint**

#### 4.38.1 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

### 4.39 \_NPFullPrint Struct Reference

#### Data Fields

- NPBool **pluginPrinted**
- NPBool **printOne**
- void \* **platformPrint**

#### 4.39.1 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

## 4.40 \_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**

### 4.40.1 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

## 4.41 \_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**

#### 4.41.1 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

## 4.42 \_NPP Struct Reference

### Data Fields

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

#### 4.42.1 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



## 4.43 \_NPPluginFuncs 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**

#### 4.43.1 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

## 4.44 \_NPPrint Struct Reference

### Data Fields

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

#### 4.44.1 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

## 4.45 `_NPRect` Struct Reference

### Data Fields

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

### 4.45.1 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`

## 4.46 `_NPSavedData` Struct Reference

### Data Fields

- `int32_t len`
- `void * buf`

### 4.46.1 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`

## 4.47 `_NPSize` Struct Reference

### Data Fields

- `int32_t width`
- `int32_t height`

### 4.47.1 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`

## 4.48 `_NPStream` Struct Reference

### Data Fields

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

### 4.48.1 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`

## 4.49 `_NPString` Struct Reference

### Data Fields

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

### 4.49.1 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`

## 4.50 `_NPVariant` Struct Reference

### Data Fields

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

#### 4.50.1 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

### 4.51 `_NPWindow` Struct Reference

#### Data Fields

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

#### 4.51.1 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

### 4.52 `_s_list_t` Struct Reference

#### Data Fields

- void \* **elem**
- struct `_s_list_t` \* **next**

#### 4.52.1 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

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

### Data Fields

- void \* **interactor**

#### 4.53.1 Detailed Description

Definition at line 31 of file SAIGlobals.h.

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

- src/SAI\_Cpp/SAIGlobals.h

## 4.54 \_SFColorNative Struct Reference

### Data Fields

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

#### 4.54.1 Detailed Description

Definition at line 76 of file jsNative.h.

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

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

## 4.55 \_SFColorRGBANative Struct Reference

### Data Fields

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

#### 4.55.1 Detailed Description

Definition at line 81 of file jsNative.h.

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

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

## 4.56 `_SfImageNative` Struct Reference

### Data Fields

- int **valueChanged**

### 4.56.1 Detailed Description

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

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

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

## 4.57 `_SFNodeNative` Struct Reference

### Data Fields

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

### 4.57.1 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`

## 4.58 `_SFRotationNative` Struct Reference

### Data Fields

- int **valueChanged**
- struct **SFRotation** v

### 4.58.1 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`

## 4.59 **\_SFVec2fNative Struct Reference**

### Data Fields

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

#### 4.59.1 Detailed Description

Definition at line 57 of file jsNative.h.

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

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

## 4.60 **\_SFVec3dNative Struct Reference**

### Data Fields

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

#### 4.60.1 Detailed Description

Definition at line 67 of file jsNative.h.

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

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

## 4.61 **\_SFVec3fNative Struct Reference**

### Data Fields

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

#### 4.61.1 Detailed Description

Definition at line 62 of file jsNative.h.

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

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

## 4.62 `_SFVec4dNative` Struct Reference

### Data Fields

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

### 4.62.1 Detailed Description

Definition at line 91 of file `jsNative.h`.

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

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

## 4.63 `_SFVec4fNative` Struct Reference

### Data Fields

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

### 4.63.1 Detailed Description

Definition at line 86 of file `jsNative.h`.

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

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

## 4.64 `_urlRequest` Struct Reference

### Data Fields

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

### 4.64.1 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`



## 4.65 \_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**

### 4.65.1 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`

## 4.66 ActiveRegion Struct Reference

### Data Fields

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

### 4.66.1 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

## 4.67 anyVrml Union Reference

### 4.67.1 Detailed Description

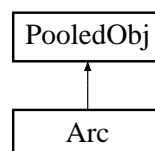
Definition at line 55 of file CParseGeneral.h.

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

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

## 4.68 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)

#### 4.68.1 Detailed Description

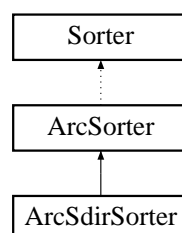
Definition at line 55 of file arc.h.

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

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

## 4.69 ArcSdirSorter Class Reference

Inheritance diagram for ArcSdirSorter:



## Public Member Functions

- **ArcSdirSorter** ( **Subdivider** &)

## Additional Inherited Members

### 4.69.1 Detailed Description

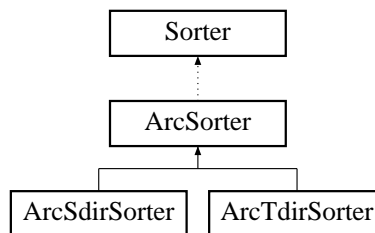
Definition at line 58 of file arcsorter.h.

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

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

## 4.70 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**

### 4.70.1 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

## 4.71 ArcTdirSorter Class Reference

Inheritance diagram for ArcTdirSorter:



### Public Member Functions

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

### Additional Inherited Members

#### 4.71.1 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

## 4.72 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)

#### 4.72.1 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

## 4.73 ArgListType Struct Reference

### Data Fields

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

### 4.73.1 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

## 4.74 Atlas Struct Reference

### Data Fields

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

### 4.74.1 Detailed Description

Definition at line 2251 of file Component\_Text.c.

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

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

## 4.75 AtlasEntry Struct Reference

### Data Fields

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

### 4.75.1 Detailed Description

Definition at line 2230 of file Component\_Text.c.

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

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

## 4.76 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**

### 4.76.1 Detailed Description

Definition at line 2214 of file Component\_Text.c.

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

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

## 4.77 AtlasFont Struct Reference

### Data Fields

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

### 4.77.1 Detailed Description

Definition at line 2274 of file Component\_Text.c.

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

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

## 4.78 Backend Class Reference

### Public Member Functions

- **Backend** ( **BasicCurveEvaluator** &c, **BasicSurfaceEvaluator** &e)
- void **bgnsurf** (int, int, long)
- void **patch** (REAL, REAL, REAL, REAL)
- void **surfpts** (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 **bgntline** (void)
- void **endline** (void)
- void **endcurv** (void)



### 4.78.1 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

## 4.79 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** ()

### 4.79.1 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

## 4.80 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

### 4.80.1 Detailed Description

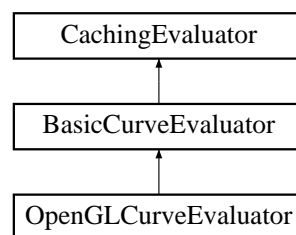
Definition at line 62 of file BasePlugin.h.

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

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

## 4.81 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

### 4.81.1 Detailed Description

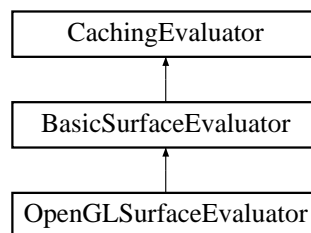
Definition at line 43 of file basiccrveval.h.

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

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

## 4.82 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

### 4.82.1 Detailed Description

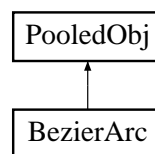
Definition at line 43 of file basicsurfeval.h.

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

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

## 4.83 BezierArc Struct Reference

Inheritance diagram for BezierArc:



### Data Fields

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

## Additional Inherited Members

### 4.83.1 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

## 4.84 bezierPatch Struct Reference

### Data Fields

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

#### 4.84.1 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

### 4.85 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**

#### 4.85.1 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

### 4.86 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)

### 4.86.1 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

## 4.87 bindablestack Struct Reference

### Data Fields

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

### 4.87.1 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

## 4.88 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**

#### 4.88.1 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

### 4.89 Breakpt Struct Reference

#### Data Fields

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

#### 4.89.1 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

### 4.90 brotoDefpair Struct Reference

#### Data Fields

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

#### 4.90.1 Detailed Description

Definition at line 235 of file CParseParser.h.

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

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

## 4.91 brotoIS Struct Reference

### Data Fields

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

### 4.91.1 Detailed Description

Definition at line 4103 of file CParseParser.c.

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

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

## 4.92 brotoRoute Struct Reference

### Data Fields

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

### 4.92.1 Detailed Description

Definition at line 73 of file CRoutes.h.

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

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

## 4.93 brouteEnd Struct Reference

### Data Fields

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



### 4.93.1 Detailed Description

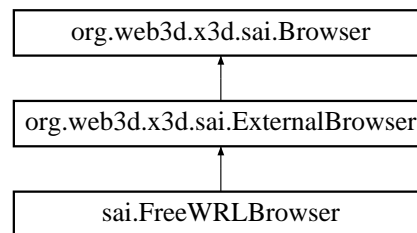
Definition at line 62 of file CRoutes.h.

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

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

## 4.94 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** ()

#### 4.94.1 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

### 4.95 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

#### 4.95.1 Detailed Description

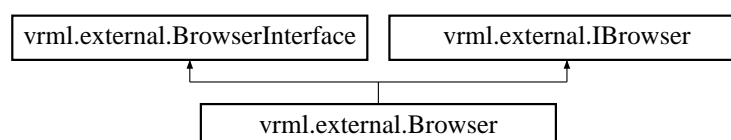
Definition at line 4 of file Browser.java.

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

- src/java/vrml/Browser.java

### 4.96 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 Illegal←  
ArgumentException
- void **deleteRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws Illegal←  
ArgumentException
- 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)

#### 4.96.1 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

## 4.97 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

### 4.97.1 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

## 4.98 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

### 4.98.1 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

## 4.99 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

### 4.99.1 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

## 4.100 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

### 4.100.1 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

## 4.101 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

### 4.101.1 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

## 4.102 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)

#### 4.102.1 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

## 4.103 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)

#### 4.103.1 Detailed Description

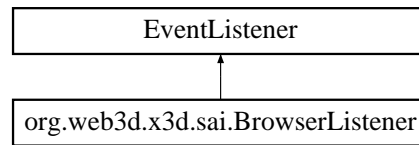
Definition at line 8 of file BrowserInterface.java.

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

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

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

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



### Public Member Functions

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

### 4.104.1 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

## 4.105 freeWRLSAI\_cpp::browserNotSharedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::browserNotSharedException:



### Public Member Functions

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

### Additional Inherited Members

### 4.105.1 Detailed Description

Definition at line 218 of file SAexception.h.

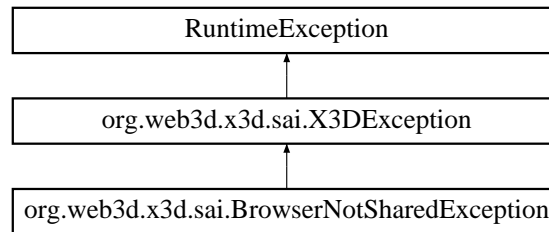
The documentation for this class was generated from the following file:

- src/SAI\_Cpp/SAexception.h



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

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



### Public Member Functions

- **BrowserNotSharedException** (String msg)

#### 4.106.1 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

## 4.107 Buffer Class Reference

### Friends

- class **Pool**

#### 4.107.1 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

## 4.108 BUTitem Struct Reference

### Data Fields

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

### 4.108.1 Detailed Description

Definition at line 814 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.109 CachedVertex Struct Reference

### Data Fields

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

### 4.109.1 Detailed Description

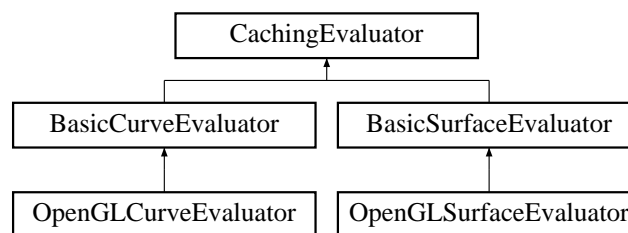
Definition at line 54 of file tess.h.

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

- src/libtess/tess.h

## 4.110 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)

#### 4.110.1 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

### 4.111 cbDataExactName Struct Reference

#### Data Fields

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

#### 4.111.1 Detailed Description

Definition at line 5222 of file CParseParser.c.

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

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

### 4.112 cbDataRootNameAndRouteDir Struct Reference

#### Data Fields

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

#### 4.112.1 Detailed Description

Definition at line 5264 of file CParseParser.c.

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

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

## 4.113 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 **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)

#### 4.113.1 Detailed Description

Definition at line 18 of file dlIFreeWRL.h.

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

- src/dlIFreeWRL/dlIFreeWRL.h
- src/dlIFreeWRL/dlIFreeWRL.cpp

### 4.114 chardata Struct Reference

#### Data Fields

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

#### 4.114.1 Detailed Description

Definition at line 202 of file Component\_Text.c.

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

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

### 4.115 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**

#### 4.115.1 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

## 4.116 cline Struct Reference

### Data Fields

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

### 4.116.1 Detailed Description

Definition at line 234 of file CursorDraw.c.

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

- src/lib/ui/CursorDraw.c

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

### Data Fields

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

### 4.117.1 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

## 4.118 colorScheme Struct Reference

### Data Fields

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

### 4.118.1 Detailed Description

Definition at line 329 of file common.c.

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

- src/lib/ui/common.c

## 4.119 command Struct Reference

### Data Fields

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

### 4.119.1 Detailed Description

Definition at line 686 of file common.c.

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

- src/lib/ui/common.c

## 4.120 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** ()

### 4.120.1 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

## 4.121 connection\_info\_struct Struct Reference

### Data Fields

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

### 4.121.1 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

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

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



### Public Member Functions

- **ConnectionException** (String msg)

### 4.122.1 Detailed Description

Definition at line 3 of file ConnectionException.java.

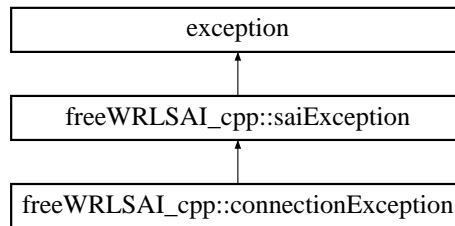
The documentation for this class was generated from the following file:

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



## 4.123 freeWRLSAI\_cpp::connectionException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::connectionException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.123.1 Detailed Description

Definition at line 85 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.124 consoleLine Struct Reference

### Data Fields

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

#### 4.124.1 Detailed Description

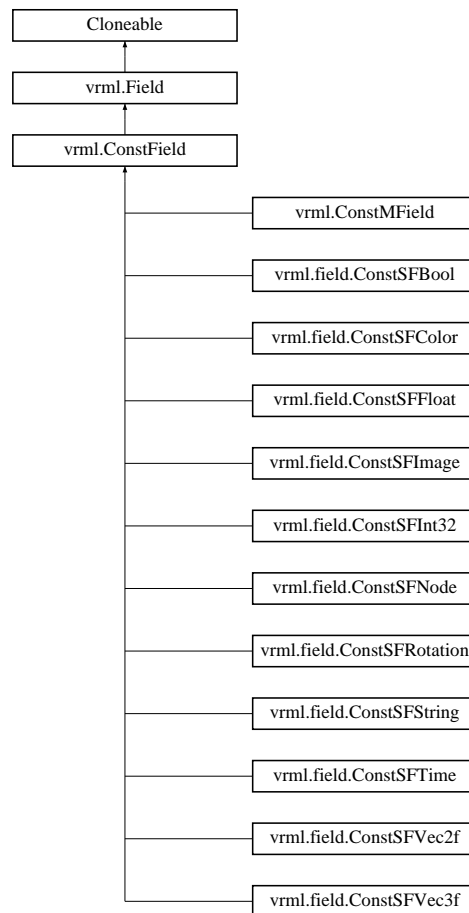
Definition at line 807 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.125 vrml.ConstField Class Reference

Inheritance diagram for vrml.ConstField:



### Additional Inherited Members

#### 4.125.1 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

## 4.126 vrml.field.ConstMFColor Class Reference

Inheritance diagram for vrml.field.ConstMFColor:



### Public Member Functions

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

### Additional Inherited Members

#### 4.126.1 Detailed Description

Definition at line 10 of file ConstMFCColor.java.

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

- src/java/vrml/field/ConstMFCColor.java

## 4.127 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

### 4.127.1 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

## 4.128 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)

### 4.128.1 Detailed Description

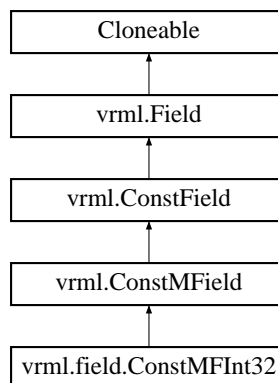
Definition at line 4 of file ConstMField.java.

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

- src/java/vrml/ConstMField.java

## 4.129 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

### 4.129.1 Detailed Description

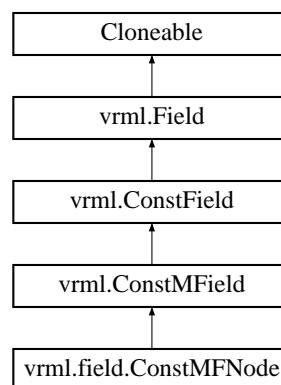
Definition at line 10 of file ConstMFIInt32.java.

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

- src/java/vrml/field/ConstMFIInt32.java

## 4.130 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

### 4.130.1 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

## 4.131 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

#### 4.131.1 Detailed Description

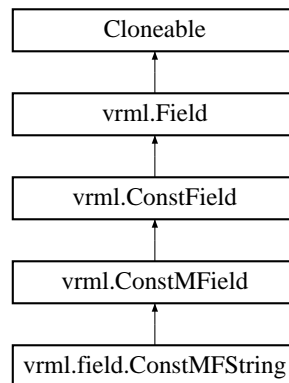
Definition at line 10 of file ConstMFRotation.java.

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

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

## 4.132 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

#### 4.132.1 Detailed Description

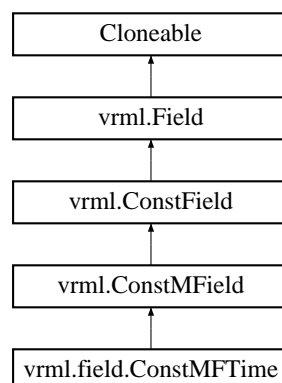
Definition at line 10 of file ConstMFString.java.

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

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

## 4.133 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

### 4.133.1 Detailed Description

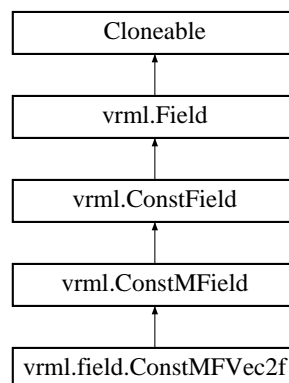
Definition at line 10 of file ConstMFTIME.java.

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

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

## 4.134 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

### 4.134.1 Detailed Description

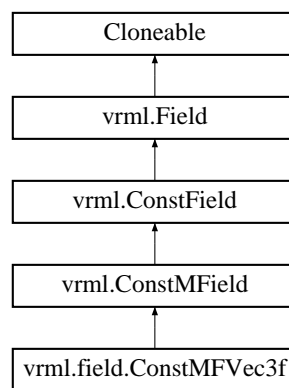
Definition at line 10 of file ConstMFVec2f.java.

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

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

## 4.135 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

### 4.135.1 Detailed Description

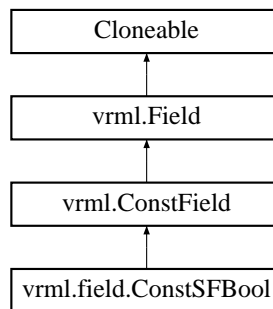
Definition at line 10 of file ConstMFVec3f.java.

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

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

## 4.136 vrml.field.ConstSFBool Class Reference

Inheritance diagram for vrml.field.ConstSFBool:



### Public Member Functions

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

### Additional Inherited Members

#### 4.136.1 Detailed Description

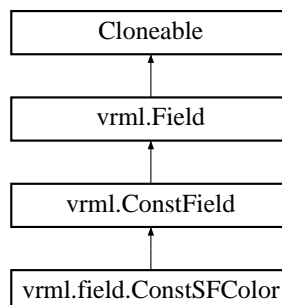
Definition at line 10 of file ConstSFBool.java.

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

- src/java/vrml/field/ConstSFBool.java

## 4.137 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

### 4.137.1 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

## 4.138 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

### 4.138.1 Detailed Description

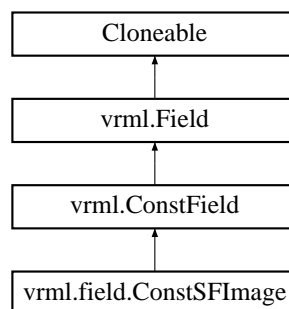
Definition at line 10 of file ConstSFFloat.java.

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

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

## 4.139 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

### 4.139.1 Detailed Description

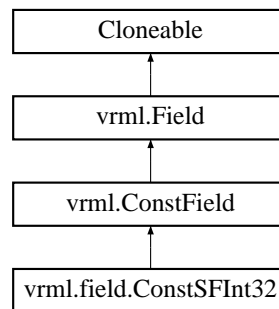
Definition at line 10 of file ConstSFImage.java.

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

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

## 4.140 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

#### 4.140.1 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`

## 4.141 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

### 4.141.1 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

## 4.142 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

### 4.142.1 Detailed Description

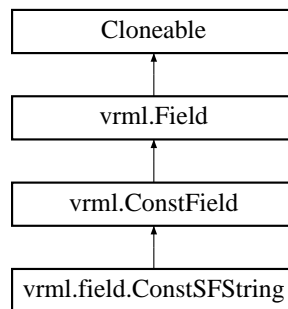
Definition at line 10 of file ConstSFRotation.java.

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

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

## 4.143 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

#### 4.143.1 Detailed Description

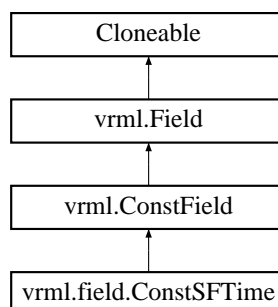
Definition at line 10 of file ConstSFString.java.

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

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

## 4.144 vrml.field.ConstSFTIME Class Reference

Inheritance diagram for vrml.field.ConstSFTIME:





## Public Member Functions

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

## Additional Inherited Members

### 4.144.1 Detailed Description

Definition at line 10 of file ConstSFTIME.java.

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

- src/java/vrml/field/ConstSFTIME.java

## 4.145 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

### 4.145.1 Detailed Description

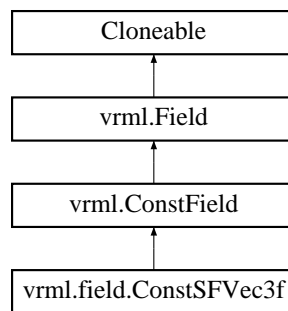
Definition at line 10 of file ConstSFVec2f.java.

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

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

## 4.146 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

#### 4.146.1 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

## 4.147 contenttype Struct Reference

### Data Fields

- **tcontenttype t1**

#### 4.147.1 Detailed Description

Definition at line 457 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.148 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**

### 4.148.1 Detailed Description

Definition at line 730 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.149 contenttype\_e3dmouse Struct Reference

### Data Fields

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

### 4.149.1 Detailed Description

Definition at line 1407 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.150 contenttype\_layer Struct Reference

### Data Fields

- **tcontenttype t1**

### 4.150.1 Detailed Description

Definition at line 1272 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.151 contenttype\_multitouch Struct Reference

### Data Fields

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

### 4.151.1 Detailed Description

Definition at line 1332 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.152 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**

#### 4.152.1 Detailed Description

Definition at line 2702 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.153 contenttype\_quadrant Struct Reference

#### Data Fields

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

#### 4.153.1 Detailed Description

Definition at line 1515 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.154 contenttype\_scene Struct Reference

#### Data Fields

- **tcontenttype t1**

#### 4.154.1 Detailed Description

Definition at line 503 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.155 contenttype\_splitter Struct Reference

#### Data Fields

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

#### 4.155.1 Detailed Description

Definition at line 2108 of file MainLoop.c.

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

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

### 4.156 `contenttype_statusbar` Struct Reference

#### Data Fields

- `tcontenttype t1`
- `int clipplane`

#### 4.156.1 Detailed Description

Definition at line 548 of file MainLoop.c.

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

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

### 4.157 `contenttype_stereo_anaglyph` Struct Reference

#### Data Fields

- `tcontenttype t1`

#### 4.157.1 Detailed Description

Definition at line 1797 of file MainLoop.c.

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

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

### 4.158 `contenttype_stereo_shutter` Struct Reference

#### Data Fields

- `tcontenttype t1`

#### 4.158.1 Detailed Description

Definition at line 1998 of file MainLoop.c.

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

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

### 4.159 `contenttype_stereo_sidebyside` Struct Reference

#### Data Fields

- **`tcontenttype t1`**

#### 4.159.1 Detailed Description

Definition at line 1645 of file MainLoop.c.

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

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

### 4.160 `contenttype_stereo_updown` Struct Reference

#### Data Fields

- **`tcontenttype t1`**

#### 4.160.1 Detailed Description

Definition at line 1890 of file MainLoop.c.

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

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

### 4.161 `contenttype_switch` Struct Reference

#### Data Fields

- **`tcontenttype t1`**
- **`int whichCase`**
- **`int * whichPtr`**

#### 4.161.1 Detailed Description

Definition at line 646 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.162 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**

#### 4.162.1 Detailed Description

Definition at line 819 of file MainLoop.c.

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

- src/lib/main/MainLoop.c



## 4.163 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**

### 4.163.1 Detailed Description

Definition at line 2329 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.164 CoveAndTiler Class Reference

Inheritance diagram for CoveAndTiler:



### Public Member Functions

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

## Additional Inherited Members

### 4.164.1 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

## 4.165 CPlugin Class Reference

### Public Member Functions

- **CPlugin** ( **NPP** pNPInstance)  
*CPlugin* (p. 132) *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** ()
- **NPObject** \* **GetScriptableObject** ()

### Data Fields

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

### 4.165.1 Detailed Description

Definition at line 46 of file plugin.h.

### 4.165.2 Constructor & Destructor Documentation

## 4.165.2.1 CPlugin()

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

**CPlugin** (p. 132) 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

## 4.166 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 **scrdir**
- void \* **extra**

## 4.166.1 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

## 4.167 CRjsnameStruct Struct Reference

## Data Fields

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

#### 4.167.1 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

### 4.168 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**

#### 4.168.1 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

### 4.169 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**

### 4.169.1 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

## 4.170 cson\_array Struct Reference

**cson\_array** (p. 135) is an opaque handle to an Array value.

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

### Data Fields

- **cson\_value\_list** list

### 4.170.1 Detailed Description

**cson\_array** (p. 135) 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

## 4.171 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.*

### 4.171.1 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.

### 4.171.2 Field Documentation

#### 4.171.2.1 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`.

#### 4.171.2.2 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`.

#### 4.171.2.3 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`.

#### 4.171.2.4 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. 136) 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. 136), 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`

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

Internal type to hold state for a JSON input string.

### Data Fields

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

### 4.172.1 Detailed Description

Internal type to hold state for a JSON input string.

Definition at line 4325 of file cson\_amalgamation\_core.c.

### 4.172.2 Field Documentation

#### 4.172.2.1 end

```
char const* cson_data_source_StringSource_::end
```

Logical EOF, one-past-the-end of str.

Definition at line 4332 of file cson\_amalgamation\_core.c.

#### 4.172.2.2 pos

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

Current iteration position.

Must initially be == str.

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



## 4.172.2.3 str

```
char const* cson_data_source_StringSource_::str
```

Start of input string.

Definition at line 4328 of file cson\_amalgamation\_core.c.

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

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

## 4.173 cson\_kvp Struct Reference

A key/value pair collection.

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

### Data Fields

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

### 4.173.1 Detailed Description

A key/value pair collection.

This class represents a key/value pair and is used for storing object properties.

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

It is opaque to client code, and the public API only uses this type for purposes of iterating over **cson\_object** (p. 140) properties using the **cson\_object\_iterator** (p. 141) 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

## 4.174 cson\_kvp\_list Struct Reference

### Data Fields

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

### 4.174.1 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

## 4.175 cson\_object Struct Reference

**cson\_object** (p. 140) is an opaque handle to an Object value.

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

### Data Fields

- **cson\_kvp\_list** kvp

### 4.175.1 Detailed Description

**cson\_object** (p. 140) 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

## 4.176 cson\_object\_iterator Struct Reference

An iterator type for traversing object properties.

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

### Data Fields

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

### 4.176.1 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

## 4.177 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.*

### 4.177.1 Detailed Description

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

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

### 4.177.2 Field Documentation

#### 4.177.2.1 `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`.

#### 4.177.2.2 `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`.

## 4.177.2.3 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

## 4.178 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.*

### 4.178.1 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

## 4.179 cson\_parse\_opt Struct Reference

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

```
#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.*

### 4.179.1 Detailed Description

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

Definition at line 433 of file cson\_amalgamation\_core.h.

### 4.179.2 Field Documentation

#### 4.179.2.1 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

## 4.180 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**

### 4.180.1 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

## 4.181 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**

### 4.181.1 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.

cson-internal string type, opaque to client code.

To convert a **cson\_string** (p. 145) to c-string we simply increment the **cson\_string** (p. 145) 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. 145) functions.

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. 145) 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

## 4.182 cson\_value Struct Reference

The core value type of this API.

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

### Data Fields

- **cson\_value\_api** const \* **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. 146) instances in multiple containers or multiple times within a single container (provided no cycles are introduced).*

### 4.182.1 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. 146) 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`.

## 4.182.2 Field Documentation

### 4.182.2.1 api

```
cson_value_api const* 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`.

#### 4.182.2.2 refcount

```
cson_counter_t cson_value::refcount
```

We use this to allow us to store **cson\_value** (p. 146) 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. 146) 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`.

#### 4.182.2.3 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`

## 4.183 cson\_value\_api Struct Reference

This type holds the "vtbl" for type-specific operations when working with **cson\_value** (p. 146) 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.*

### 4.183.1 Detailed Description

This type holds the "vtbl" for type-specific operations when working with `cson_value` (p. 146) 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`.

### 4.183.2 Field Documentation

#### 4.183.2.1 `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`

## 4.184 `cson_value_list` Struct Reference

### Data Fields

- `cson_value` \*\* **list**
- unsigned int **count**
- unsigned int **allocated**

### 4.184.1 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`

## 4.185 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**

### 4.185.1 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

## 4.186 currayhit Struct Reference

### Data Fields

- struct **X3D\_Node** \* **hitNode**
- GLDOUBLE **modelMatrix** [16]
- GLDOUBLE **projMatrix** [16]
- GLDOUBLE **justModel** [16]

### 4.186.1 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

## 4.187 Curve Class Reference

### Public Member Functions

- **Curve** ( **Quilt** \*, REAL, REAL, **Curve** \*)
- **Curve** ( **Curve** &, REAL, **Curve** \*)

### Data Fields

- **Curve** \* **next**

### Friends

- class **Curvelist**

#### 4.187.1 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

## 4.188 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]

#### 4.188.1 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

## 4.189 Curvelist Class Reference

### Public Member Functions

- **Curvelist** ( **Quilt** \*, REAL, REAL)
- **Curvelist** ( **Curvelist** &, REAL)
- int **cullCheck** (void)
- void **getstepsize** (void)
- int **needsSamplingSubdivision** ()

### Friends

- class **Subdivider**

### 4.189.1 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

## 4.190 damper\_ptrs Struct Reference

### Data Fields

- void \* **value\_changed**
- void \* **initialDestination**
- void \* **initialValue**
- void \* **set\_destination**
- void \* **set\_value**
- void \* **\_values**
- void \* **\_input**

### 4.190.1 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

## 4.191 datChnk Struct Reference

### Data Fields

- char **chunkID** [4]
- int32\_t **chunkSize**

#### 4.191.1 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

## 4.192 dct\_dc\_size\_entry Struct Reference

### Data Fields

- unsigned int **value**
- int **num\_bits**

#### 4.192.1 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

## 4.193 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 dwDD SX
        unsigned int dwReserved
    } sCaps
    unsigned int dwReserved2
};

```

- char **data** [128]

#### 4.193.1 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

### 4.194 DdsLoadInfo Struct Reference

#### Data Fields

- bool **compressed**
- bool **swap**
- bool **palette**
- unsigned int **divSize**
- unsigned int **blockBytes**
- GLenum **internalFormat**
- GLenum **externalFormat**
- GLenum **type**



#### 4.194.1 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

### 4.195 Dict Struct Reference

#### Data Fields

- **DictNode** head
- void \* **frame**
- int(\* **leq** )(void \*frame, DictKey key1, DictKey key2)

#### 4.195.1 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

### 4.196 DictNode Struct Reference

#### Data Fields

- DictKey **key**
- **DictNode** \* **next**
- **DictNode** \* **prev**

#### 4.196.1 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

## 4.197 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\_2slices** ( **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)

### 4.197.1 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

## 4.198 DisplayList Class Reference

### Public Member Functions

- **DisplayList** ( **NurbsTessellator** \*)
- void **play** (void)
- void **append** (PFVS work, void \*arg, PFVS cleanup)
- void **endList** (void)

### 4.198.1 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

## 4.199 freeWRLSAI\_cpp::disposedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::disposedException:



### Public Member Functions

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

## Additional Inherited Members

### 4.199.1 Detailed Description

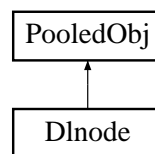
Definition at line 96 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.200 Dlnode Struct Reference

Inheritance diagram for Dlnode:



## Public Member Functions

- **Dlnode** (PFVS, void \*, PFVS)

## Data Fields

- PFVS **work**
- void \* **arg**
- PFVS **cleanup**
- **Dlnode** \* **next**

### 4.200.1 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

## 4.201 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  
};
```

#### 4.201.1 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

## 4.202 duk\_\_bigint Struct Reference

### Data Fields

- duk\_small\_int\_t **n**
- duk\_uint32\_t **v** [DUK\_\_BI\_MAX\_PARTS]

#### 4.202.1 Detailed Description

Definition at line 79190 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.203 duk\_\_compile\_raw\_args Struct Reference

### Data Fields

- duk\_size\_t **src\_length**
- const duk\_uint8\_t \* **src\_buffer**
- duk\_uint\_t **flags**

### 4.203.1 Detailed Description

Definition at line 14494 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.204 duk\_\_compiler\_stkstate Struct Reference

### Data Fields

- duk\_small\_uint\_t **flags**
- duk\_compiler\_ctx comp\_ctx\_alloc
- duk\_lexer\_point lex\_pt\_alloc

### 4.204.1 Detailed Description

Definition at line 60581 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.205 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**

### 4.205.1 Detailed Description

Definition at line 29015 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.206 duk\_\_encode\_context Struct Reference

### Data Fields

- duk\_uint8\_t \* **out**
- duk\_codepoint\_t **lead**

#### 4.206.1 Detailed Description

Definition at line 29010 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.207 duk\_\_exp\_limits Struct Reference

### Data Fields

- duk\_int16\_t **upper**
- duk\_int16\_t **lower**

#### 4.207.1 Detailed Description

Definition at line 79149 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.208 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**

#### 4.208.1 Detailed Description

Definition at line 74954 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.209 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**

### 4.209.1 Detailed Description

Definition at line 79745 of file duktape.c.

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

- `src/lib/world_script/duktape/duktape.c`

## 4.210 duk\_\_objlit\_state Struct Reference

### Data Fields

- **duk\_reg\_t reg\_obj**
- **duk\_reg\_t temp\_start**
- **duk\_small\_uint\_t num\_pairs**

### 4.210.1 Detailed Description

Definition at line 63417 of file duktape.c.

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

- `src/lib/world_script/duktape/duktape.c`



## 4.211 duk\_pcall\_prop\_args Struct Reference

### Data Fields

- duk\_idx\_t **obj\_idx**
- duk\_idx\_t **nargs**

#### 4.211.1 Detailed Description

Definition at line 13387 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.212 duk\_re\_disjunction\_info Struct Reference

### Data Fields

- duk\_int32\_t **charlen**

#### 4.212.1 Detailed Description

Definition at line 81422 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.213 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**

#### 4.213.1 Detailed Description

Definition at line 30433 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.214 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**

### 4.214.1 Detailed Description

Definition at line 6854 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.215 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**

### 4.215.1 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

## 4.216 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**

### 4.216.1 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

## 4.217 duk\_breakpoint Struct Reference

### Data Fields

- **duk\_hstring \* filename**
- **duk\_uint32\_t line**

### 4.217.1 Detailed Description

Definition at line 7685 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.218 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**

### 4.218.1 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

## 4.219 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**

### 4.219.1 Detailed Description

Definition at line 6906 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.220 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**

### 4.220.1 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

## 4.221 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

#### 4.221.1 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

### 4.222 duk\_compiler\_instr Struct Reference

#### Data Fields

- duk\_instr\_t **ins**
- duk\_uint32\_t **line**

#### 4.222.1 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

### 4.223 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]

#### 4.223.1 Detailed Description

Definition at line 1294 of file duktape.h.

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

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

## 4.224 duk\_function\_list\_entry Struct Reference

### Data Fields

- const char \* **key**
- duk\_c\_function **value**
- duk\_idx\_t **nargs**

### 4.224.1 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

## 4.225 duk\_harray Struct Reference

### Data Fields

- duk\_hobject **obj**
- duk\_uint32\_t **length**
- duk\_bool\_t **length\_nonwritable**

### 4.225.1 Detailed Description

Definition at line 7065 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.226 duk\_hbuffer Struct Reference

### Data Fields

- duk\_heap\_hdr **hdr**
- duk\_size\_t **size**

### 4.226.1 Detailed Description

Definition at line 7263 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.227 duk\_hbuffer\_dynamic Struct Reference

### Data Fields

- **duk\_heaphdr** **hdr**
- **duk\_size\_t** **size**
- **void \*** **curr\_alloc**

### 4.227.1 Detailed Description

Definition at line 7363 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.228 duk\_hbuffer\_external Struct Reference

### Data Fields

- **duk\_heaphdr** **hdr**
- **duk\_size\_t** **size**
- **void \*** **curr\_alloc**

### 4.228.1 Detailed Description

Definition at line 7392 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.229 duk\_hbuffer\_fixed Struct Reference

### Data Fields

- ```
union {
    struct {
        duk_heaphdr hdr
        duk_size_t size
    } s
    duk_double_t dummy_for_align8
} u
```



### 4.229.1 Detailed Description

Definition at line 7309 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.230 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

### 4.230.1 Detailed Description

Definition at line 6598 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.231 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

### 4.231.1 Detailed Description

Definition at line 6336 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.232 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]

### 4.232.1 Detailed Description

Definition at line 7766 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.233 duk\_heaphdr Struct Reference

### Data Fields

- duk\_uint32\_t **h\_flags**
- duk\_size\_t **h\_refcount**
- duk\_heaphdr \* **h\_next**
- duk\_heaphdr \* **h\_prev**

#### 4.233.1 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

### 4.234 duk\_heaphdr\_string Struct Reference

#### Data Fields

- duk\_uint32\_t **h\_flags**
- duk\_size\_t **h\_refcount**

#### 4.234.1 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

### 4.235 duk\_hnatfunc Struct Reference

#### Data Fields

- duk\_hobject **obj**
- duk\_c\_function **func**
- duk\_int16\_t **nargs**
- duk\_int16\_t **magic**

#### 4.235.1 Detailed Description

Definition at line 6476 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.236 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**

### 4.236.1 Detailed Description

Definition at line 5971 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.237 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**

### 4.237.1 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

## 4.238 duk\_hstring\_external Struct Reference

### Data Fields

- **duk\_hstring** **str**
- const duk\_uint8\_t \* **extdata**

### 4.238.1 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

## 4.239 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** \*\* str

### 4.239.1 Detailed Description

Definition at line 6915 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.240 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**

### 4.240.1 Detailed Description

Definition at line 14949 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.241 duk\_ispec Struct Reference

### Data Fields

- duk\_small\_uint\_t t
- duk\_regconst\_t **regconst**
- duk\_idx\_t **valstack\_idx**

### 4.241.1 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

## 4.242 duk\_ivalue Struct Reference

### Data Fields

- duk\_small\_uint\_t t
- duk\_small\_uint\_t **op**
- **duk\_ispec** x1
- **duk\_ispec** x2

#### 4.242.1 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

### 4.243 duk\_jmpbuf Struct Reference

#### Data Fields

- DUK\_JMPBUF\_TYPE **jb**

#### 4.243.1 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

### 4.244 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**

#### 4.244.1 Detailed Description

Definition at line 9175 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.245 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]

### 4.245.1 Detailed Description

Definition at line 9147 of file duktape.c.

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

- src/lib/world\_script/duktape/duktape.c

## 4.246 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

### 4.246.1 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



## 4.247 duk\_lexer\_codepoint Struct Reference

### Data Fields

- duk\_codepoint\_t **codepoint**
- duk\_size\_t **offset**
- duk\_int\_t **line**

#### 4.247.1 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

## 4.248 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**

#### 4.248.1 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

## 4.249 duk\_lexer\_point Struct Reference

### Data Fields

- duk\_size\_t **offset**
- duk\_int\_t **line**

#### 4.249.1 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

### 4.250 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**

#### 4.250.1 Detailed Description

Definition at line 7731 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\_memory\_functions Struct Reference

#### Data Fields

- duk\_alloc\_function **alloc\_func**
- duk\_realloc\_function **realloc\_func**
- duk\_free\_function **free\_func**
- void \* **udata**

#### 4.251.1 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

## 4.252 duk\_number\_list\_entry Struct Reference

### Data Fields

- const char \* **key**
- duk\_double\_t **value**

### 4.252.1 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

## 4.253 duk\_propaccessor Struct Reference

### Data Fields

- duk\_hobject \* **get**
- duk\_hobject \* **set**

### 4.253.1 Detailed Description

Definition at line 5945 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\_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**

#### 4.254.1 Detailed Description

Definition at line 5959 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\_propvalue Union Reference

#### Data Fields

- **duk\_tval** `v`
- **duk\_propaccessor** `a`

#### 4.255.1 Detailed Description

Definition at line 5950 of file duktape.c.

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

- `src/lib/world_script/duktape/duktape.c`

### 4.256 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`

#### 4.256.1 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`

## 4.257 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**

### 4.257.1 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

## 4.258 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**

### 4.258.1 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

## 4.259 duk\_strcache Struct Reference

### Data Fields

- **duk\_hstring** \* **h**
- duk\_uint32\_t **bidx**
- duk\_uint32\_t **cidx**

### 4.259.1 Detailed Description

Definition at line 7720 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\_strtab\_entry Struct Reference

### Data Fields

- duk\_size\_t **listlen**
- union {  
    **duk\_hstring** \*\* **strlist**  
    **duk\_hstring** \* **str**  
} **u**

### 4.260.1 Detailed Description

Definition at line 7743 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\_thread\_state Struct Reference

### Data Fields

- char **data** [128]

### 4.261.1 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

## 4.262 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**

### 4.262.1 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

## 4.263 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**

#### 4.263.1 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

### 4.264 duk\_tval\_unused Struct Reference

#### Data Fields

- duk\_uint16\_t **a**
- duk\_uint16\_t **b**
- duk\_uint16\_t **c**
- duk\_uint16\_t **d**

#### 4.264.1 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

### 4.265 EAI\_Extra\_Data Struct Reference

#### Data Fields

- int **field\_id**
- int **node\_id**
- int **field\_type**
- int **listener\_id**

#### 4.265.1 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



## 4.266 EAI\_ListenerStruct Struct Reference

### Data Fields

- int **FreeWRL\_RegisterNumber**
- int **type**
- int **datasize**
- void \* **dataArea**
- void \* **arg**
- void(\* **functionHandler**)( X3DNode \*, double, void \*arg)

### 4.266.1 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

## 4.267 vrml.external.FreeWRLEAI.EAIAsyncMessage Class Reference

### Data Fields

- String **value**
- int **EventNumber**
- **EAIAsyncMessage** prev
- **EAIAsyncMessage** next

### 4.267.1 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

## 4.268 sai.eai.EAIAsyncMessage Class Reference

### Data Fields

- String **value**
- int **EventNumber**
- **EAIAsyncMessage** prev
- **EAIAsyncMessage** next

#### 4.268.1 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`

### 4.269 vrml.external.FreeWRLEAI.EAIAsyncQueue Class Reference

#### Public Member Functions

- synchronized void **enqueue** ( **EAIAsyncMessage** msg)
- synchronized **EAIAsyncMessage** **dequeue** ()
- boolean **isEmpty** ()

#### 4.269.1 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`

### 4.270 sai.eai.EAIAsyncQueue Class Reference

#### Public Member Functions

- synchronized void **enqueue** ( **EAIAsyncMessage** msg)
- synchronized **EAIAsyncMessage** **dequeue** ()
- boolean **isEmpty** ()

#### 4.270.1 Detailed Description

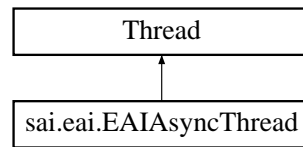
Definition at line 20 of file `EAIAsyncQueue.java`.

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

- `src/java/sai/eai/EAIAsyncQueue.java`

## 4.271 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** ()

#### 4.271.1 Detailed Description

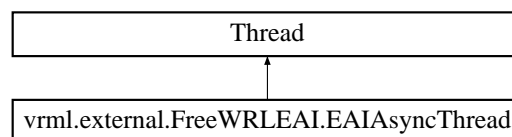
Definition at line 36 of file `EAIAsyncThread.java`.

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

- `src/java/sai/eai/EAIAsyncThread.java`

## 4.272 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** ()

#### 4.272.1 Detailed Description

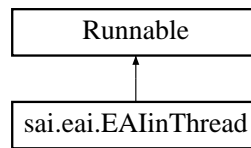
Definition at line 34 of file `EAIAsyncThread.java`.

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

- `src/java/vrml/external/FreeWRLEAI/EAIAsyncThread.java`

## 4.273 sai.eai.EAlinThread Class Reference

Inheritance diagram for sai.eai.EAlinThread:



### Public Member Functions

- **EAlinThread** (Socket s, Applet d, PrintWriter pwtoBrowserjava, **BrowserInterface** me)
- void **run** ()

#### 4.273.1 Detailed Description

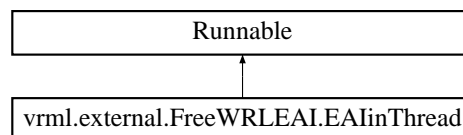
Definition at line 12 of file EAlinThread.java.

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

- src/java/sai/eai/EAlinThread.java

## 4.274 vrml.external.FreeWRLEAI.EAlinThread Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.EAlinThread:



### Public Member Functions

- **EAlinThread** (Socket s, Applet d, PrintWriter pwtoBrowserjava, **Browser** me)
- void **run** ()

#### 4.274.1 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

## 4.275 sai.eai.EAIMessage Class Reference

### Public Member Functions

- **EAIMessage** (String thismsg)

### Data Fields

- String **mmm**
- **EAIMessage** prev
- **EAIMessage** next

#### 4.275.1 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

## 4.276 vrml.external.FreeWRLEAI.EAIMessage Class Reference

### Public Member Functions

- **EAIMessage** (String thismsg)

### Data Fields

- String **mmm**
- **EAIMessage** prev
- **EAIMessage** next

#### 4.276.1 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

## 4.277 EAInodeIndexStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **actualNodePtr**
- int **nodeType**
- struct **Vector** \* **nodeParams**

#### 4.277.1 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

### 4.278 EAINodeParams Struct Reference

#### Data Fields

- struct **X3D\_Node** \* **thisFieldNodePointer**
- int **fieldOffset**
- int **datalen**
- int **typeString**
- int **scripttype**
- char \* **invokedPROTOValue**

#### 4.278.1 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

### 4.279 sai.eai.EAloutQueue Class Reference

#### Public Member Functions

- synchronized void **enqueue** ( **EAIMessage** msg)
- synchronized **EAIMessage dequeue** ()
- boolean **isEmpty** ()

#### 4.279.1 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

## 4.280 vrml.external.FreeWRLEAI.EAloutQueue Class Reference

### Public Member Functions

- synchronized void **enqueue** ( **EAIMessage** msg)
- synchronized **EAIMessage** **dequeue** ()
- boolean **isEmpty** ()

### 4.280.1 Detailed Description

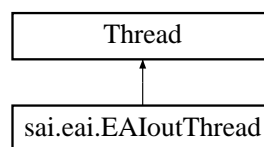
Definition at line 21 of file EAloutQueue.java.

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

- src/java/vrml/external/FreeWRLEAI/EAloutQueue.java

## 4.281 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** ()

### 4.281.1 Detailed Description

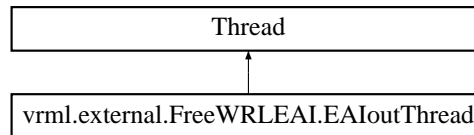
Definition at line 33 of file EAloutThread.java.

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

- src/java/sai/eai/EAloutThread.java

## 4.282 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** ()

### 4.282.1 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

## 4.283 ECMAValueStruct Struct Reference

### Data Fields

- jsval **JS\_address**
- JSContext \* **context**
- int **valueChanged**
- char \* **name**

### 4.283.1 Detailed Description

Definition at line 68 of file jsVRMLClasses.c.

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

- src/lib/world\_script/jsVRMLClasses.c



## 4.284 EdgePair Struct Reference

### Data Fields

- **GLUhalfEdge e**
- **GLUhalfEdge eSym**

### 4.284.1 Detailed Description

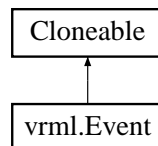
Definition at line 59 of file mesh.c.

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

- src/libtess/mesh.c
- src/libtess/tess.c

## 4.285 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** ()

### 4.285.1 Detailed Description

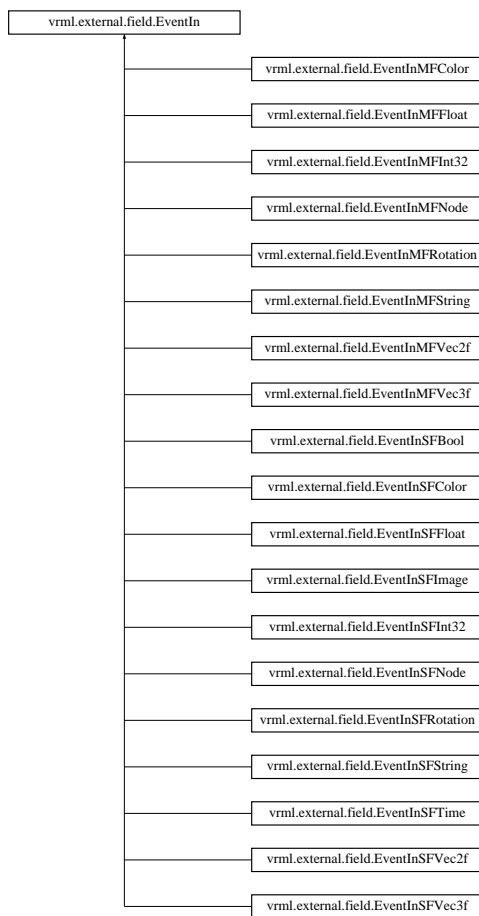
Definition at line 4 of file Event.java.

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

- src/java/vrml/Event.java

## 4.286 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**

#### 4.286.1 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

## 4.287 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

#### 4.287.1 Detailed Description

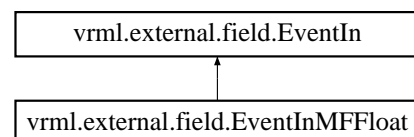
Definition at line 6 of file EventInMFCOLOR.java.

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

- src/java/vrml/external/field/EventInMFCOLOR.java

## 4.288 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

#### 4.288.1 Detailed Description

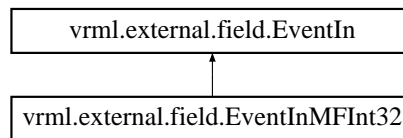
Definition at line 6 of file EventInMFFLOAT.java.

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

- src/java/vrml/external/field/EventInMFFLOAT.java

## 4.289 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

#### 4.289.1 Detailed Description

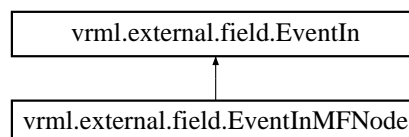
Definition at line 6 of file `EventInMFINt32.java`.

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

- `src/java/vrml/external/field/EventInMFINt32.java`

## 4.290 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

#### 4.290.1 Detailed Description

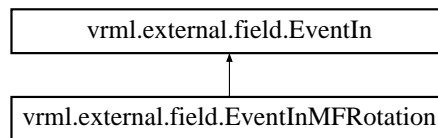
Definition at line 6 of file `EventInMFNode.java`.

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

- `src/java/vrml/external/field/EventInMFNode.java`

## 4.291 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

#### 4.291.1 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`

## 4.292 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

#### 4.292.1 Detailed Description

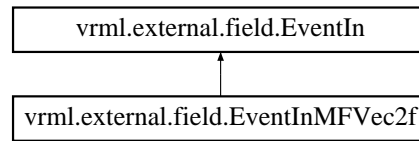
Definition at line 5 of file `EventInMFString.java`.

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

- `src/java/vrml/external/field/EventInMFString.java`

## 4.293 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

#### 4.293.1 Detailed Description

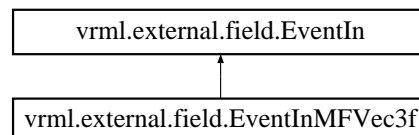
Definition at line 6 of file `EventInMFVec2f.java`.

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

- `src/java/vrml/external/field/EventInMFVec2f.java`

## 4.294 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

#### 4.294.1 Detailed Description

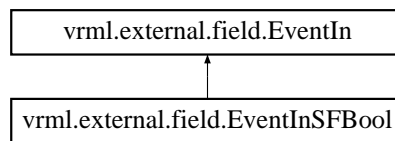
Definition at line 6 of file `EventInMFVec3f.java`.

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

- `src/java/vrml/external/field/EventInMFVec3f.java`

## 4.295 vrml.external.field.EventInSFBool Class Reference

Inheritance diagram for vrml.external.field.EventInSFBool:



### Public Member Functions

- void **setValue** (boolean value)

### Additional Inherited Members

#### 4.295.1 Detailed Description

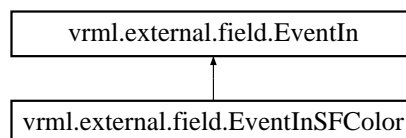
Definition at line 5 of file EventInSFBool.java.

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

- src/java/vrml/external/field/EventInSFBool.java

## 4.296 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

#### 4.296.1 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

## 4.297 vrml.external.field.EventInSFFloat Class Reference

Inheritance diagram for vrml.external.field.EventInSFFloat:



### Public Member Functions

- void **setValue** (float value)

### Additional Inherited Members

#### 4.297.1 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

## 4.298 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

#### 4.298.1 Detailed Description

Definition at line 7 of file EventInSFImage.java.

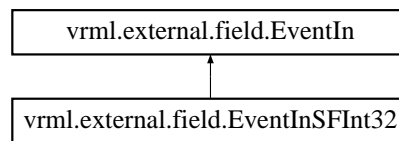
The documentation for this class was generated from the following file:

- src/java/vrml/external/field/EventInSFImage.java



## 4.299 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

#### 4.299.1 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

## 4.300 vrml.external.field.EventInSFNode Class Reference

Inheritance diagram for vrml.external.field.EventInSFNode:



### Public Member Functions

- void **setValue** ( **Node** node)

### Additional Inherited Members

#### 4.300.1 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

## 4.301 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

#### 4.301.1 Detailed Description

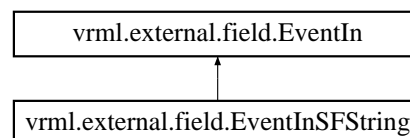
Definition at line 5 of file EventInSFRotation.java.

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

- src/java/vrml/external/field/EventInSFRotation.java

## 4.302 vrml.external.field.EventInSFString Class Reference

Inheritance diagram for vrml.external.field.EventInSFString:



### Public Member Functions

- void **setValue** (String value)

### Additional Inherited Members

#### 4.302.1 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

## 4.303 vrml.external.field.EventInSFTIME Class Reference

Inheritance diagram for vrml.external.field.EventInSFTIME:



### Public Member Functions

- void **setValue** (double value)

### Additional Inherited Members

#### 4.303.1 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

## 4.304 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

#### 4.304.1 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

## 4.305 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

#### 4.305.1 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

## 4.306 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

#### 4.306.1 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

## 4.307 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

#### 4.307.1 Detailed Description

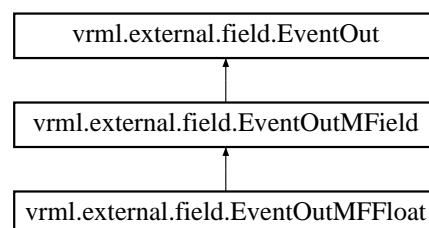
Definition at line 8 of file EventOutMFCOLOR.java.

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

- src/java/vrml/external/field/EventOutMFCOLOR.java

## 4.308 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

### 4.308.1 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

## 4.309 vrml.external.field.EventOutMField Class Reference

Inheritance diagram for vrml.external.field.EventOutMField:



## Public Member Functions

- int **getSize** ()

## Additional Inherited Members

### 4.309.1 Detailed Description

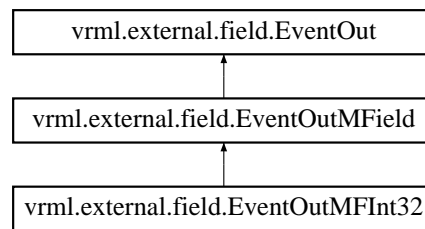
Definition at line 7 of file EventOutMField.java.

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

- src/java/vrml/external/field/EventOutMField.java

## 4.310 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

#### 4.310.1 Detailed Description

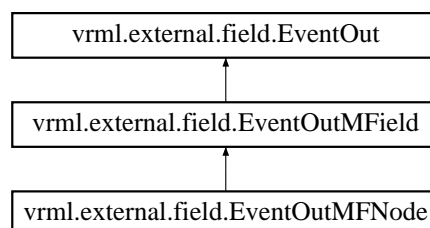
Definition at line 8 of file EventOutMField32.java.

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

- `src/java/vrml/external/field/EventOutMField32.java`

## 4.311 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

### 4.311.1 Detailed Description

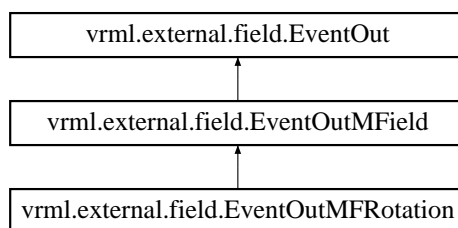
Definition at line 8 of file EventOutMFNode.java.

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

- src/java/vrml/external/field/EventOutMFNode.java

## 4.312 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

### 4.312.1 Detailed Description

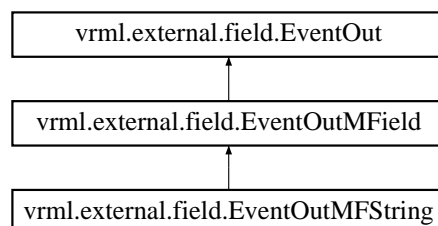
Definition at line 8 of file EventOutMFRotation.java.

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

- src/java/vrml/external/field/EventOutMFRotation.java

## 4.313 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

### 4.313.1 Detailed Description

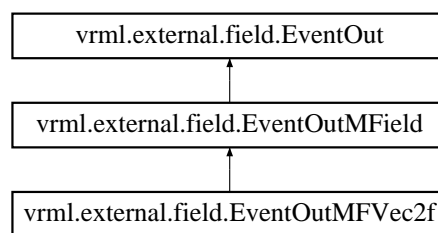
Definition at line 7 of file `EventOutMFString.java`.

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

- `src/java/vrml/external/field/EventOutMFString.java`

## 4.314 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

### 4.314.1 Detailed Description

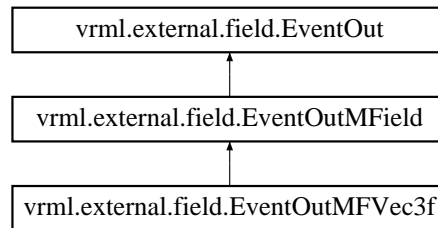
Definition at line 8 of file `EventOutMFVec2f.java`.

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

- `src/java/vrml/external/field/EventOutMFVec2f.java`

## 4.315 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

#### 4.315.1 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

## 4.316 vrml.external.field.EventOutObserver Interface Reference

### Public Member Functions

- void **callback** ( **EventOut** value, double timeStamp, Object userData)

#### 4.316.1 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

## 4.317 vrml.external.field.EventOutSFBool Class Reference

Inheritance diagram for vrml.external.field.EventOutSFBool:



### Public Member Functions

- boolean **getValue** ()

### Additional Inherited Members

#### 4.317.1 Detailed Description

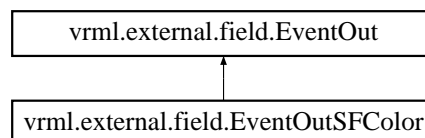
Definition at line 7 of file EventOutSFBool.java.

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

- src/java/vrml/external/field/EventOutSFBool.java

## 4.318 vrml.external.field.EventOutSFColor Class Reference

Inheritance diagram for vrml.external.field.EventOutSFColor:



### Public Member Functions

- float [] **getValue** ()

### Additional Inherited Members

#### 4.318.1 Detailed Description

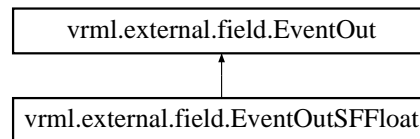
Definition at line 7 of file EventOutSFColor.java.

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

- src/java/vrml/external/field/EventOutSFColor.java

## 4.319 vrml.external.field.EventOutSFFloat Class Reference

Inheritance diagram for vrml.external.field.EventOutSFFloat:



### Public Member Functions

- float **getValue** ()

### Additional Inherited Members

#### 4.319.1 Detailed Description

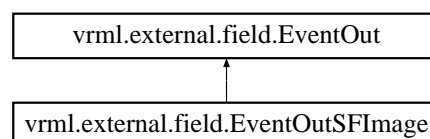
Definition at line 7 of file `EventOutSFFloat.java`.

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

- `src/java/vrml/external/field/EventOutSFFloat.java`

## 4.320 vrml.external.field.EventOutSImage Class Reference

Inheritance diagram for vrml.external.field.EventOutSImage:



### Public Member Functions

- int **getWidth** ()
- int **getHeight** ()
- int **getNumComponents** ()
- byte [] **getPixels** ()

## Additional Inherited Members

### 4.320.1 Detailed Description

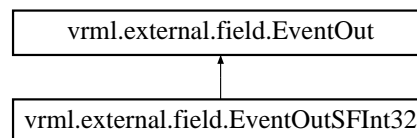
Definition at line 7 of file EventOutSFImage.java.

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

- src/java/vrml/external/field/EventOutSFImage.java

## 4.321 vrml.external.field.EventOutSFInt32 Class Reference

Inheritance diagram for vrml.external.field.EventOutSFInt32:



## Public Member Functions

- int **getValue** ()

## Additional Inherited Members

### 4.321.1 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

## 4.322 vrml.external.field.EventOutSFNode Class Reference

Inheritance diagram for vrml.external.field.EventOutSFNode:



### Public Member Functions

- **Node** `getValue ()`

### Additional Inherited Members

#### 4.322.1 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

## 4.323 vrml.external.field.EventOutSFRotation Class Reference

Inheritance diagram for vrml.external.field.EventOutSFRotation:



### Public Member Functions

- float [] **getValue ()**

### Additional Inherited Members

#### 4.323.1 Detailed Description

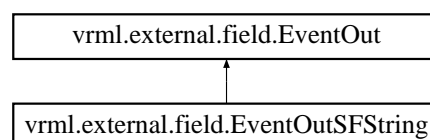
Definition at line 6 of file EventOutSFRotation.java.

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

- src/java/vrml/external/field/EventOutSFRotation.java

## 4.324 vrml.external.field.EventOutSFString Class Reference

Inheritance diagram for vrml.external.field.EventOutSFString:



## Public Member Functions

- String **getValue** ()

## Additional Inherited Members

### 4.324.1 Detailed Description

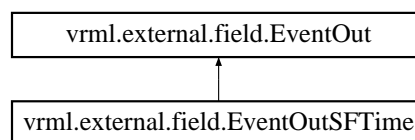
Definition at line 7 of file EventOutSFString.java.

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

- src/java/vrml/external/field/EventOutSFString.java

## 4.325 vrml.external.field.EventOutSFTime Class Reference

Inheritance diagram for vrml.external.field.EventOutSFTime:



## Public Member Functions

- double **getValue** ()

## Additional Inherited Members

### 4.325.1 Detailed Description

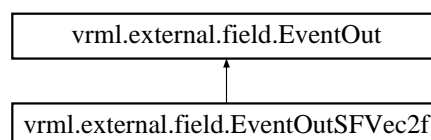
Definition at line 7 of file EventOutSFTime.java.

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

- src/java/vrml/external/field/EventOutSFTime.java

## 4.326 vrml.external.field.EventOutSFVec2f Class Reference

Inheritance diagram for vrml.external.field.EventOutSFVec2f:





## Public Member Functions

- float [] **getValue** ()

## Additional Inherited Members

### 4.326.1 Detailed Description

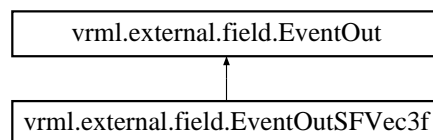
Definition at line 6 of file EventOutSFVec2f.java.

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

- src/java/vrml/external/field/EventOutSFVec2f.java

## 4.327 vrml.external.field.EventOutSFVec3f Class Reference

Inheritance diagram for vrml.external.field.EventOutSFVec3f:



## Public Member Functions

- float [] **getValue** ()

## Additional Inherited Members

### 4.327.1 Detailed Description

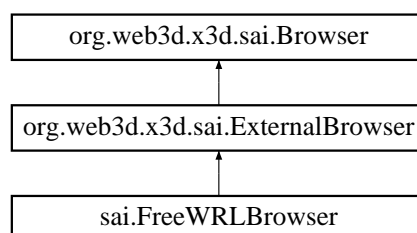
Definition at line 6 of file EventOutSFVec3f.java.

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

- src/java/vrml/external/field/EventOutSFVec3f.java

## 4.328 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

### 4.328.1 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

## 4.329 extrusion Struct Reference

### Data Fields

- **polygon poly**
- double **below**
- double **above**

### 4.329.1 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

## 4.330 FaceCount Struct Reference

### Data Fields

- long **size**
- **GLUhalfEdge** \* **eStart**
- void(\* **render** )( **GLUtesselator** \*, **GLUhalfEdge** \*, long)

### 4.330.1 Detailed Description

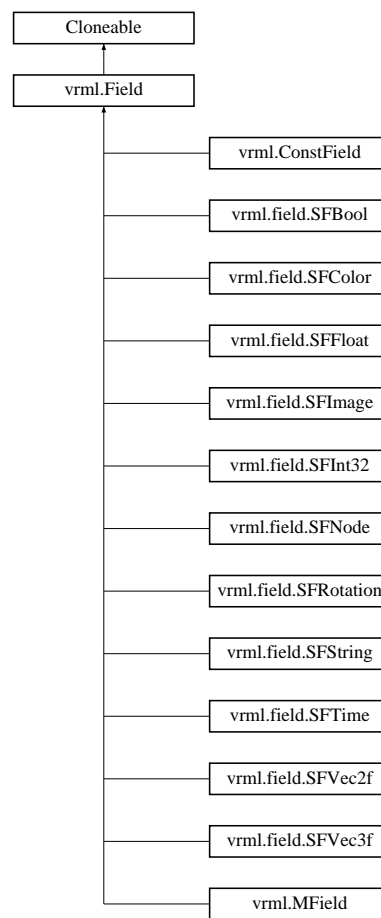
Definition at line 49 of file render.c.

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

- src/libtess/render.c

## 4.331 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** ()

#### 4.331.1 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

## 4.332 FieldDecl Struct Reference

### Data Fields

- indexT **PKWmode**
- indexT **fieldType**
- indexT **lexerNameIndex**
- indexT **JSparamNameIndex**
- int **shaderVariableID**

### 4.332.1 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

## 4.333 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

### 4.333.1 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

## 4.334 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**

#### 4.334.1 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

## 4.335 FirstStruct Struct Reference

### Data Fields

- void \* **tonode**
- void(\* **interp\_ptr**)(void \*)

#### 4.335.1 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

## 4.336 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**

### 4.336.1 Detailed Description

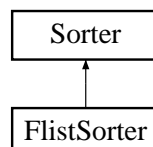
Definition at line 42 of file flist.h.

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

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

## 4.337 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)

#### 4.337.1 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

## 4.338 flychord Struct Reference

### Data Fields

- int **chord**
- **Key arrows** [4]

#### 4.338.1 Detailed Description

Definition at line 1838 of file Viewer.c.

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

- src/lib/scenegraph/Viewer.c

## 4.339 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**

#### 4.339.1 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

### 4.340 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**

#### 4.340.1 Detailed Description

Initialization.

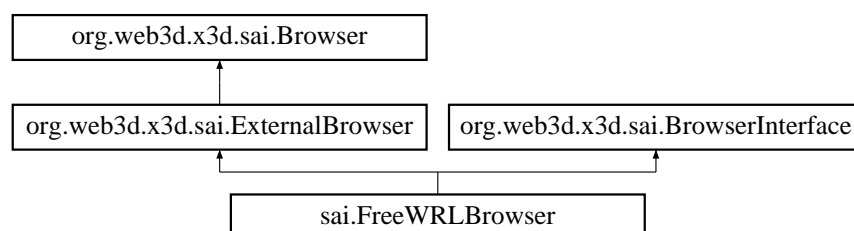
Definition at line 71 of file libFreeWRL.h.

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

- src/lib/libFreeWRL.h

### 4.341 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 EVtreply, 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 to↵EventIn) throws IllegalArgumentException
- String **deleteRoute** ( **FreeWRLNode** fromNode, String fromEventOut, **FreeWRLNode** toNode, String to↵EventIn) 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, Connection↵Exception
- void **removeBrowserListener** ( **BrowserListener** listener) throws InvalidBrowserException, Connection↵Exception
- void **browserEvent** (int type)
- **X3DScene** **currentScene** ()
- **ProfileInfo** **getProfile** (String name) throws ConnectionException, InvalidBrowserException, Not↵SupportedException
- **ProfileInfo** [] **getSupportedProfiles** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo** [] **getSupportedComponents** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo** **getComponent** (String name, int level) throws InvalidBrowserException, NotSupported↵Exception, ConnectionException
- **X3DExecutionContext** **getExecutionContext** () throws InvalidBrowserException, ConnectionException
- **X3DScene** **createScene** ( **ProfileInfo** profile, **ComponentInfo**[] components) throws InvalidBrowser↵Exception, 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)

#### 4.341.1 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

## 4.342 sai.FreeWRLBrowserInfo Class Reference

### Static Public Member Functions

- static void **setBrowserProperty** (int property, boolean value)
- static boolean **getBrowserProperty** (int property)
- static Map **getBrowserProperties** ()

#### 4.342.1 Detailed Description

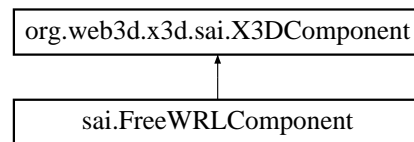
Definition at line 5 of file FreeWRLBrowserInfo.java.

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

- src/java/sai/FreeWRLBrowserInfo.java

## 4.343 sai.FreeWRLComponent Class Reference

Inheritance diagram for sai.FreeWRLComponent:



### Public Member Functions

- **ExternalBrowser** **getBrowser** ()
- Object **getImplementation** ()
- void **shutdown** ()

#### 4.343.1 Detailed Description

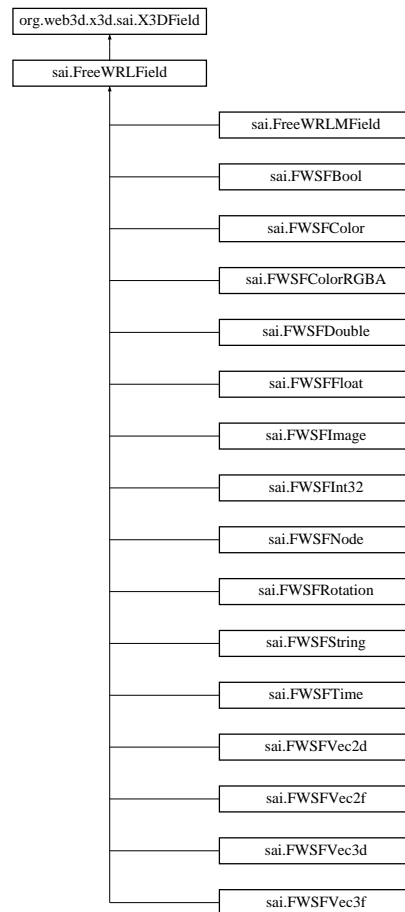
Definition at line 4 of file FreeWRLComponent.java.

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

- src/java/sai/FreeWRLComponent.java

## 4.344 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

#### 4.344.1 Detailed Description

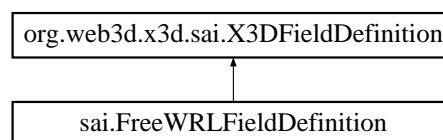
Definition at line 4 of file FreeWRLField.java.

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

- src/java/sai/FreeWRLField.java

## 4.345 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**

#### 4.345.1 Detailed Description

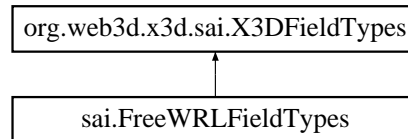
Definition at line 4 of file FreeWRLFieldDefinition.java.

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

- src/java/sai/FreeWRLFieldDefinition.java

## 4.346 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

#### 4.346.1 Detailed Description

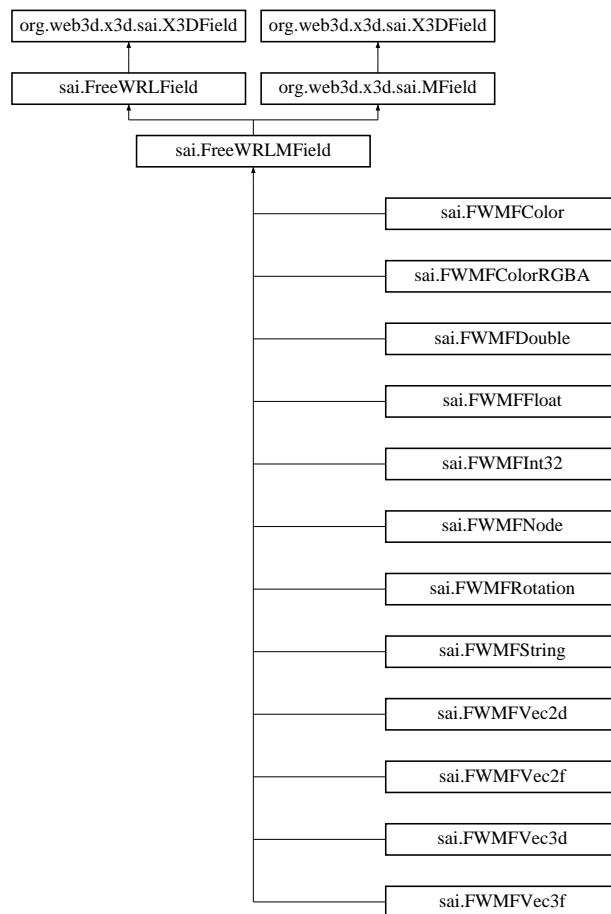
Definition at line 5 of file FreeWRLFieldTypes.java.

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

- src/java/sai/FreeWRLFieldTypes.java

## 4.347 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←  
Exception

## Additional Inherited Members

### 4.347.1 Detailed Description

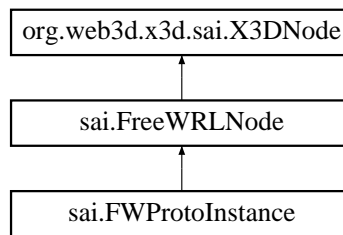
Definition at line 5 of file FreeWRLMField.java.

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

- src/java/sai/FreeWRLMField.java

## 4.348 sai.FreeWRLNode Class Reference

Inheritance diagram for sai.FreeWRLNode:



### Public Member Functions

- **FreeWRLNode** ( **FreeWRLBrowser** b)
- **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

### 4.348.1 Detailed Description

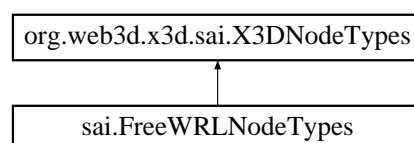
Definition at line 6 of file FreeWRLNode.java.

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

- src/java/sai/FreeWRLNode.java

## 4.349 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

#### 4.349.1 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

## 4.350 sai.FreeWRLRendererInfo Class Reference

### Static Public Member Functions

- static void **setRenderingProperty** (String **key**, Object value)
- static Object **getRenderingProperty** (String **key**)
- static Map **getRenderingProperties** ()

#### 4.350.1 Detailed Description

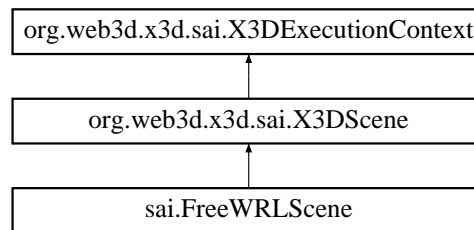
Definition at line 5 of file FreeWRLRendererInfo.java.

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

- src/java/sai/FreeWRLRendererInfo.java

## 4.351 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** ()

#### 4.351.1 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

## 4.352 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**

#### 4.352.1 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

## 4.353 fw\_MaterialParameters Struct Reference

### Data Fields

- float **emission** [4]
- float **ambient** [4]
- float **diffuse** [4]
- float **specular** [4]
- float **shininess**

### 4.353.1 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

## 4.354 FWBITMAPFILEHEADER Struct Reference

### Data Fields

- FDWORD **bfSize**
- FWORD **bfReserved1**
- FWORD **bfReserved2**
- FDWORD **bfOffBits**

### 4.354.1 Detailed Description

Definition at line 309 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

## 4.355 FWBITMAPINFO Struct Reference

### Data Fields

- FWBITMAPINFOHEADER **bmiHeader**
- FWRGBQUAD **bmiColors** [1]

### 4.355.1 Detailed Description

Definition at line 324 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

## 4.356 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**

### 4.356.1 Detailed Description

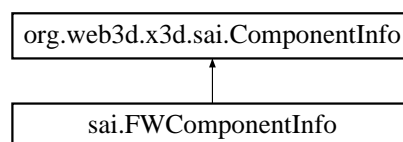
Definition at line 294 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

## 4.357 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** ()

### 4.357.1 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

## 4.358 vrml.FWCreateField Class Reference

### Static Public Member Functions

- static **Field createField** (String type)
- static **ConstField createConstField** (String type)

### 4.358.1 Detailed Description

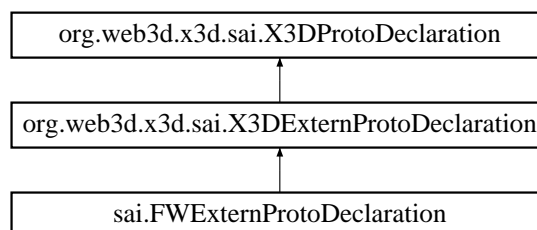
Definition at line 5 of file FWCreateField.java.

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

- src/java/vrml/FWCreateField.java

## 4.359 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** ()

#### 4.359.1 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

### 4.360 FWFunctionSpec Struct Reference

#### Data Fields

- const char \* **name**
- FWFunction **call**
- char **retType**
- struct **ArgListType** **arglist**

#### 4.360.1 Detailed Description

Definition at line 57 of file FWTYPE.h.

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

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

### 4.361 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)

#### 4.361.1 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

## 4.362 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

### 4.362.1 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

## 4.363 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** ()

### 4.363.1 Detailed Description

Definition at line 5 of file FWJavaScriptBinding.java.

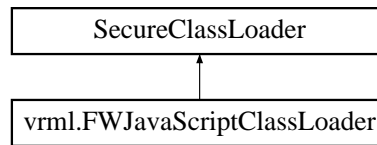
The documentation for this class was generated from the following file:

- src/java/vrml/FWJavaScriptBinding.java



## 4.364 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

### 4.364.1 Detailed Description

Definition at line 13 of file FWJavaScriptClassLoader.java.

### 4.364.2 Constructor & Destructor Documentation

#### 4.364.2.1 FWJavaScriptClassLoader()

```
vrml.FWJavaScriptClassLoader.FWJavaScriptClassLoader (
    String url ) [inline]
```

#### Parameters

<i>url</i>	base url for loading classes.
------------	-------------------------------

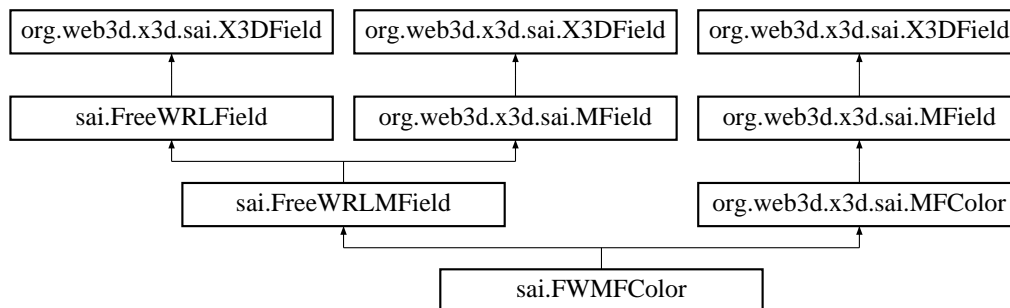
Definition at line 21 of file FWJavaScriptClassLoader.java.

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

- src/java/vrml/FWJavaScriptClassLoader.java

## 4.365 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

#### 4.365.1 Detailed Description

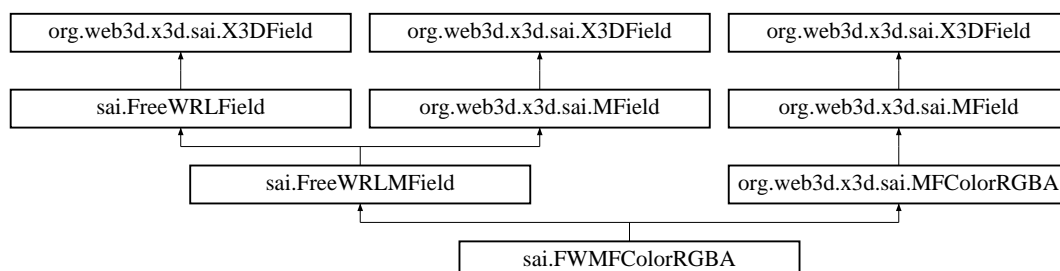
Definition at line 6 of file `FWMFColor.java`.

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

- `src/java/sai/FWMFColor.java`

## 4.366 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

### 4.366.1 Detailed Description

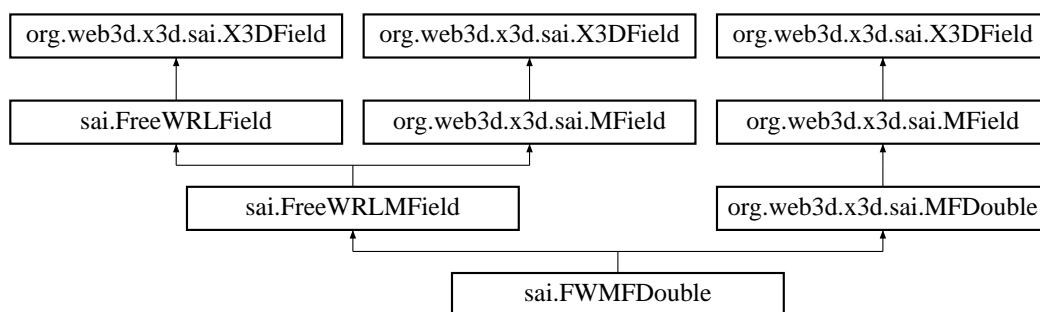
Definition at line 5 of file FWMFColorRGBA.java.

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

- src/java/sai/FWMFColorRGBA.java

## 4.367 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

### 4.367.1 Detailed Description

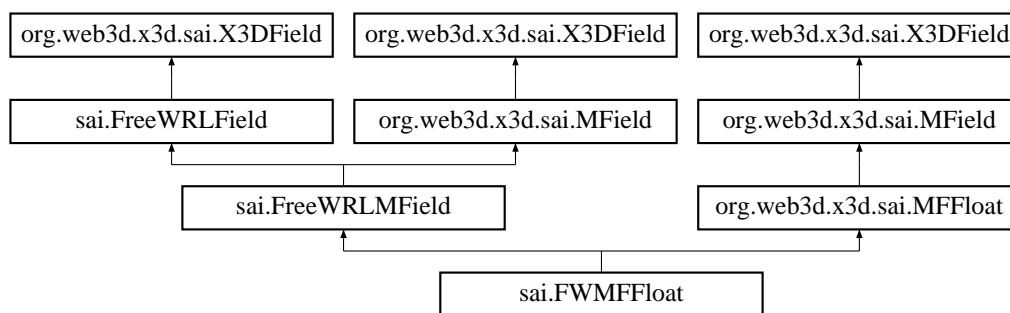
Definition at line 5 of file FWMFDouble.java.

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

- src/java/sai/FWMFDouble.java

## 4.368 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

### 4.368.1 Detailed Description

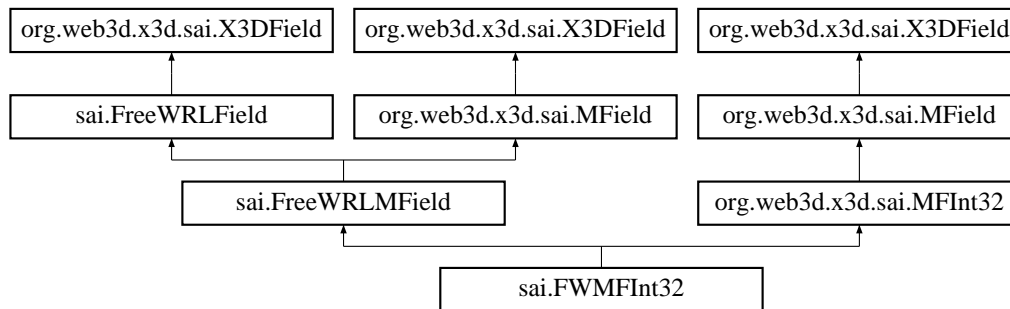
Definition at line 5 of file FWMFFloat.java.

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

- src/java/sai/FWMFFloat.java

## 4.369 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

#### 4.369.1 Detailed Description

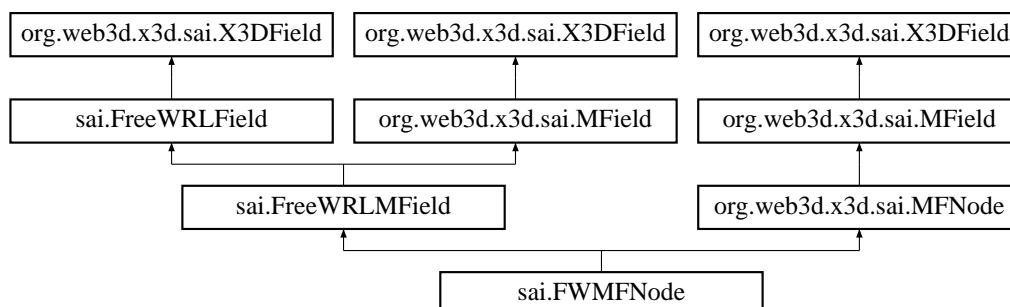
Definition at line 5 of file FWMFInt32.java.

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

- src/java/sai/FWMFInt32.java

## 4.370 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

### 4.370.1 Detailed Description

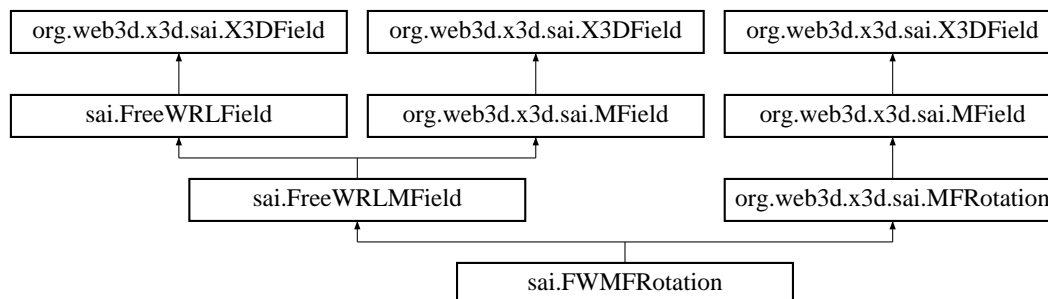
Definition at line 5 of file `FWMFNode.java`.

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

- `src/java/sai/FWMFNode.java`

## 4.371 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

### 4.371.1 Detailed Description

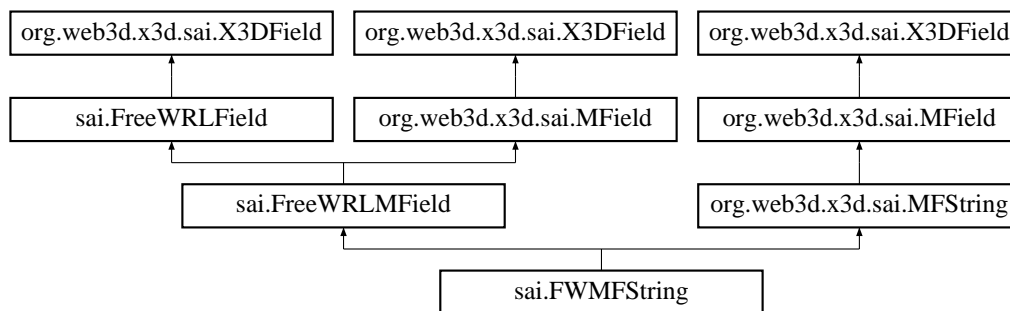
Definition at line 5 of file FWMFRotation.java.

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

- src/java/sai/FWMFRotation.java

## 4.372 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

### 4.372.1 Detailed Description

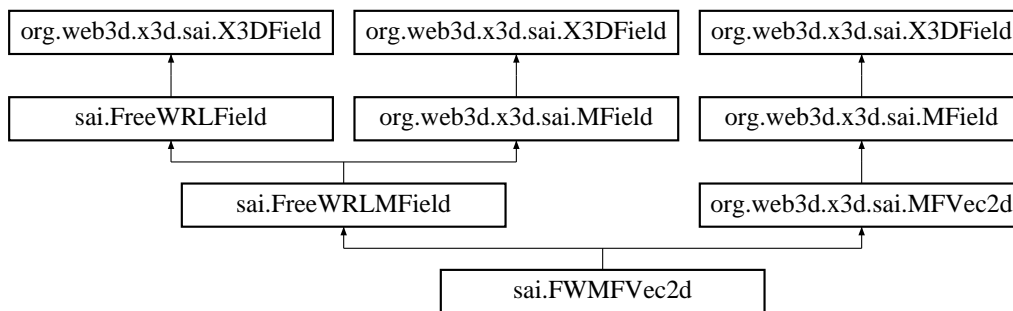
Definition at line 5 of file FWMFString.java.

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

- src/java/sai/FWMFString.java

### 4.373 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

#### 4.373.1 Detailed Description

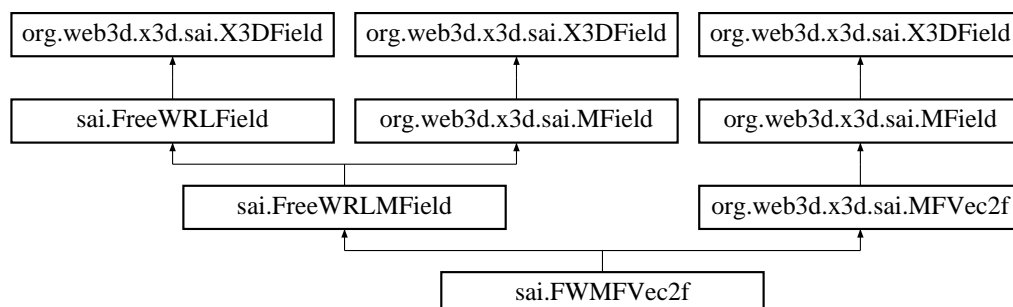
Definition at line 5 of file `FWMFVec2d.java`.

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

- `src/java/sai/FWMFVec2d.java`

### 4.374 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

### 4.374.1 Detailed Description

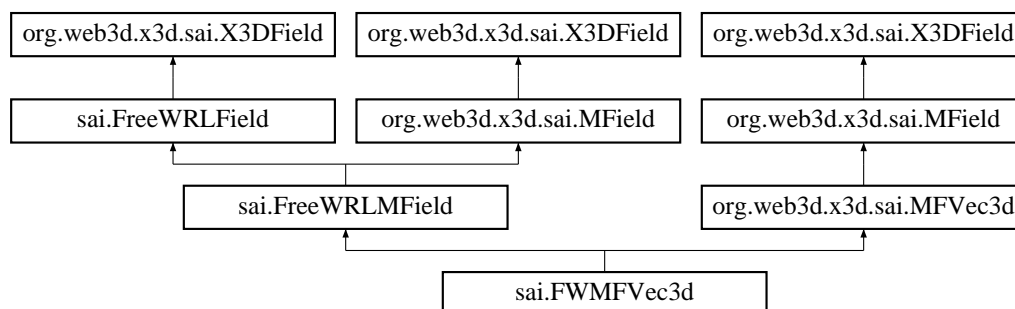
Definition at line 5 of file `FWMFVec2f.java`.

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

- `src/java/sai/FWMFVec2f.java`

## 4.375 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

### 4.375.1 Detailed Description

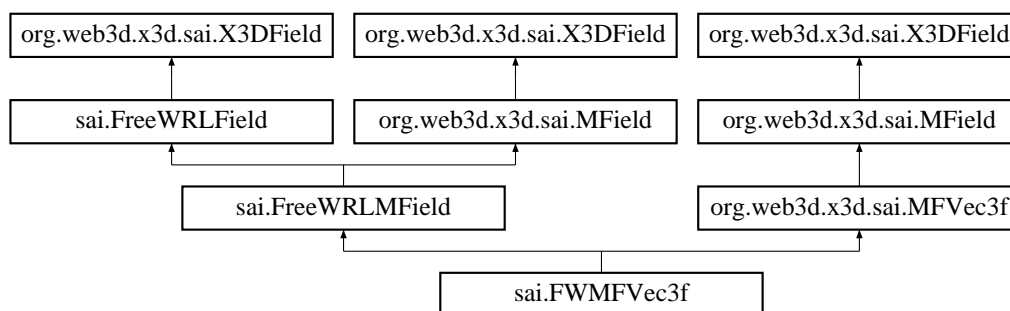
Definition at line 5 of file FWMFVec3d.java.

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

- src/java/sai/FWMFVec3d.java

## 4.376 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

### 4.376.1 Detailed Description

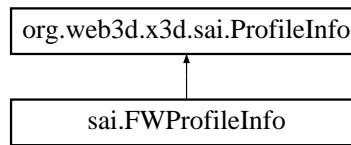
Definition at line 5 of file FWMFVec3f.java.

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

- src/java/sai/FWMFVec3f.java

## 4.377 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** ()

#### 4.377.1 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

## 4.378 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

#### 4.378.1 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

## 4.379 FWPropertySpec Struct Reference

### Data Fields

- const char \* **name**
- short **index**
- char **type**
- char **readOnly**

### 4.379.1 Detailed Description

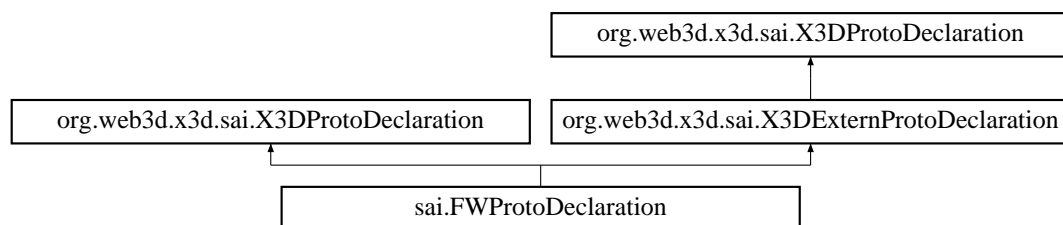
Definition at line 33 of file FWTYPE.h.

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

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

## 4.380 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** ()

### 4.380.1 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

## 4.381 sai.FWProtoInstance Class Reference

Inheritance diagram for sai.FWProtoInstance:



### Public Member Functions

- **FWProtoInstance** ( **FreeWRLBrowser** b)
- **int [] getImplementationTypes** ()

### 4.381.1 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

## 4.382 FWRGBQUAD Struct Reference

### Data Fields

- **FBYTE rgbBlue**
- **FBYTE rgbGreen**
- **FBYTE rgbRed**
- **FBYTE rgbReserved**

### 4.382.1 Detailed Description

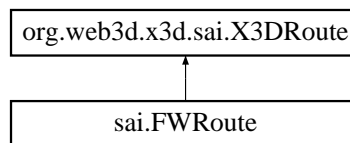
Definition at line 317 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

## 4.383 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** ()

### 4.383.1 Detailed Description

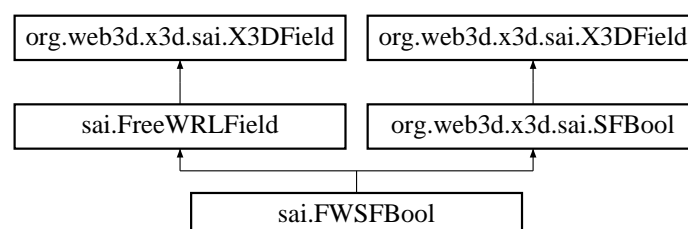
Definition at line 4 of file FWRoute.java.

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

- src/java/sai/FWRoute.java

## 4.384 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

### 4.384.1 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

## 4.385 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

### 4.385.1 Detailed Description

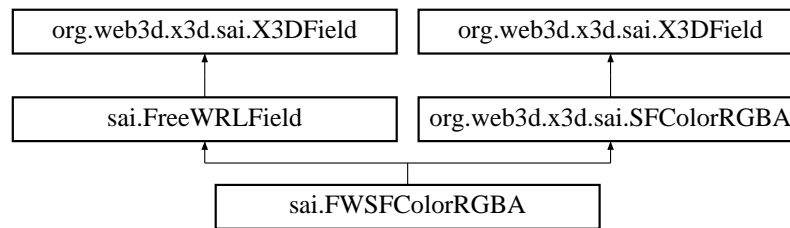
Definition at line 5 of file FWSFColor.java.

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

- src/java/sai/FWSFColor.java

## 4.386 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

#### 4.386.1 Detailed Description

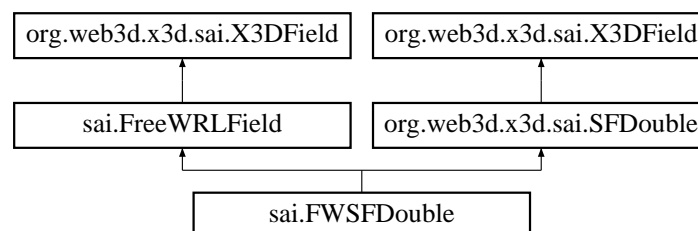
Definition at line 5 of file FWSFColorRGBA.java.

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

- src/java/sai/FWSFColorRGBA.java

## 4.387 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

### 4.387.1 Detailed Description

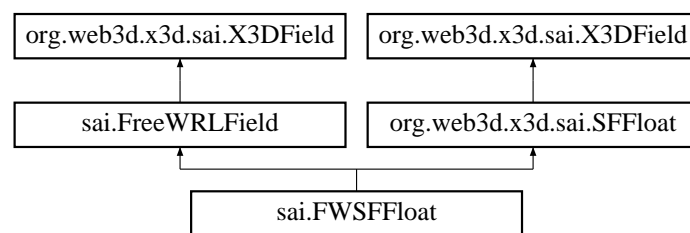
Definition at line 4 of file FWSFDouble.java.

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

- src/java/sai/FWSFDouble.java

## 4.388 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

### 4.388.1 Detailed Description

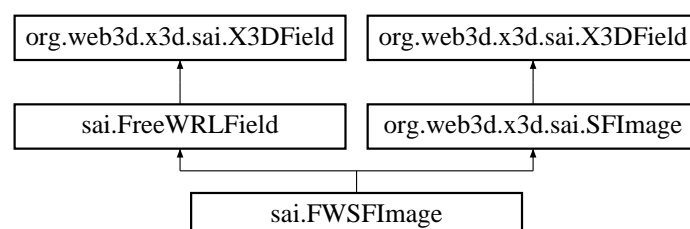
Definition at line 4 of file FWSFFloat.java.

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

- src/java/sai/FWSFFloat.java

## 4.389 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

### 4.389.1 Detailed Description

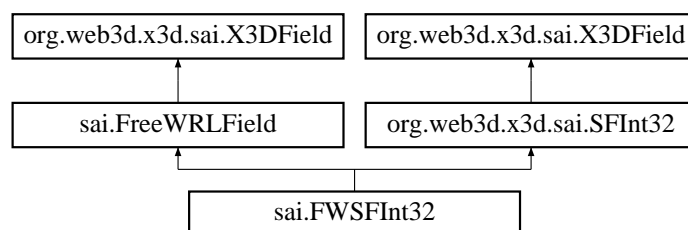
Definition at line 7 of file FWSFImage.java.

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

- src/java/sai/FWSFImage.java

## 4.390 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

### 4.390.1 Detailed Description

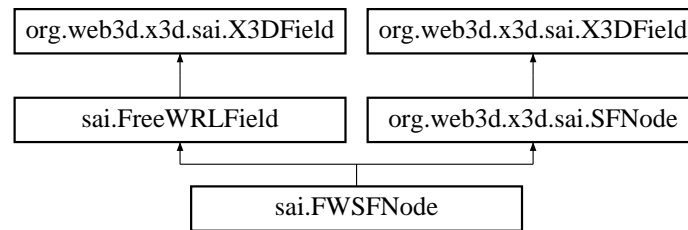
Definition at line 4 of file FWSFInt32.java.

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

- src/java/sai/FWSFInt32.java

## 4.391 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

#### 4.391.1 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`

## 4.392 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

### 4.392.1 Detailed Description

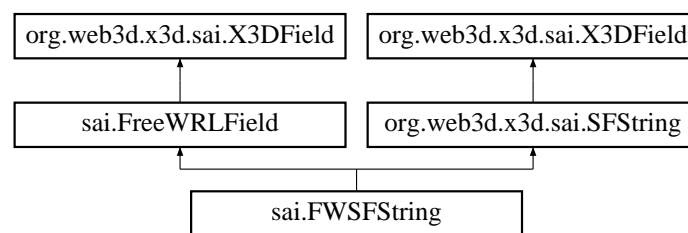
Definition at line 5 of file FWSFRotation.java.

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

- src/java/sai/FWSFRotation.java

## 4.393 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

### 4.393.1 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

## 4.394 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

### 4.394.1 Detailed Description

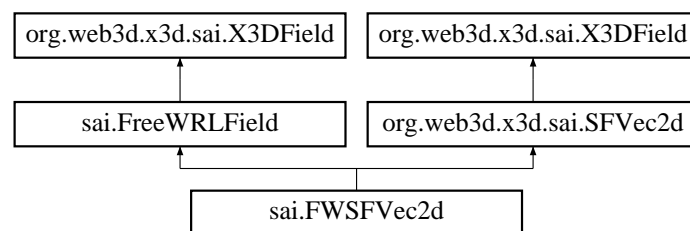
Definition at line 4 of file FWSFTime.java.

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

- src/java/sai/FWSFTime.java

## 4.395 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

### 4.395.1 Detailed Description

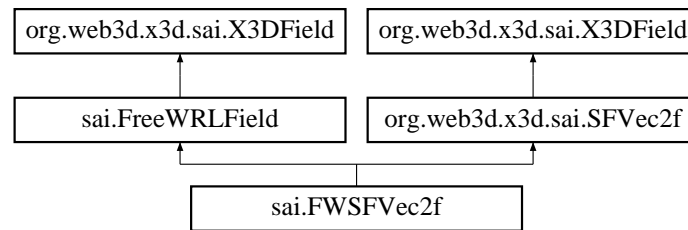
Definition at line 5 of file FWSFVec2d.java.

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

- src/java/sai/FWSFVec2d.java

## 4.396 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

#### 4.396.1 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

## 4.397 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

### 4.397.1 Detailed Description

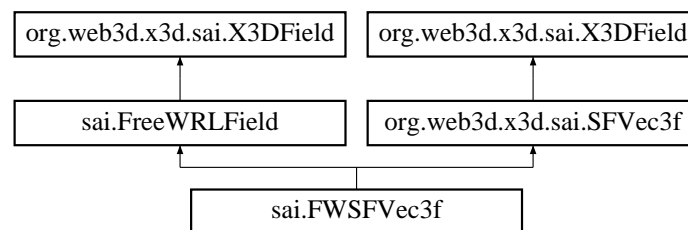
Definition at line 5 of file FWSFVec3d.java.

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

- src/java/sai/FWSFVec3d.java

## 4.398 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

### 4.398.1 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

## 4.399 FWSNDMSG Struct Reference

## Data Fields

- long **mtype**
- char **msg** [SNDMAXMSGSIZE]

#### 4.399.1 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

### 4.400 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**

#### 4.400.1 Detailed Description

Definition at line 64 of file FWTYPE.h.

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

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

### 4.401 FWVAL Struct Reference

#### Data Fields

- char **itype**
  -
- ```

union {
    int _null
    double _numeric
    int _integer
    int _boolean
    const char * _string
    FWPointer _pointer
    FWPointer _web3dval
    void * _jsobject
};

```



#### 4.401.1 Detailed Description

Definition at line 112 of file FWTYPE.h.

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

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

### 4.402 FXY Struct Reference

#### Data Fields

- GLfloat **x**
- GLfloat **y**

#### 4.402.1 Detailed Description

Definition at line 220 of file CursorDraw.c.

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

- src/lib/ui/CursorDraw.c

### 4.403 GLUface Struct Reference

#### Data Fields

- **GLUface \* next**
- **GLUface \* prev**
- **GLUhalfEdge \* anEdge**
- void \* **data**
- **GLUface \* trail**
- GLboolean **marked**
- GLboolean **inside**

#### 4.403.1 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

## 4.404 GLUhalfEdge Struct Reference

### Data Fields

- **GLUhalfEdge \* next**
- **GLUhalfEdge \* Sym**
- **GLUhalfEdge \* Onext**
- **GLUhalfEdge \* Lnext**
- **GLUvertex \* Org**
- **GLUface \* Lface**
- **ActiveRegion \* activeRegion**
- **int winding**

### 4.404.1 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

## 4.405 GLUmesh Struct Reference

### Data Fields

- **GLUvertex vHead**
- **GLUface fHead**
- **GLUhalfEdge eHead**
- **GLUhalfEdge eHeadSym**

### 4.405.1 Detailed Description

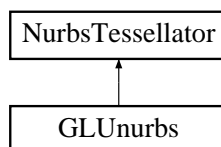
Definition at line 163 of file mesh.h.

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

- src/libtess/mesh.h

## 4.406 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

### 4.406.1 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

## 4.407 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**

### 4.407.1 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

## 4.408 GLUvertex Struct Reference

### Data Fields

- **GLUvertex** \* **next**
- **GLUvertex** \* **prev**
- **GLUhalfEdge** \* **anEdge**
- void \* **data**
- GLdouble **coords** [3]
- GLdouble **s**
- GLdouble **t**
- long **pqHandle**

#### 4.408.1 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

### 4.409 GLwDrawingAreaCallbackStruct Struct Reference

#### Data Fields

- int **reason**
- XEvent \* **event**
- Dimension **width**
- Dimension **height**

#### 4.409.1 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

### 4.410 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**

#### 4.410.1 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

### 4.411 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**

#### 4.411.1 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

### 4.412 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** ()

#### 4.412.1 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

### 4.413 Gridline Struct Reference

#### Data Fields

- long **v**
- REAL **vval**
- long **vindex**
- long **ustart**
- long **uend**

#### 4.413.1 Detailed Description

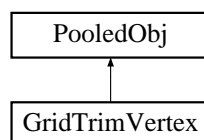
Definition at line 39 of file gridline.h.

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

- src/libnurbs/internals/gridline.h

### 4.414 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

### 4.414.1 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

## 4.415 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]

### 4.415.1 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

## 4.416 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 \*vvlas)
- void **print** ()
- Int **get\_n\_ulin**es ()
- Int **get\_n\_vlin**es ()
- 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** ()



#### 4.416.1 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

### 4.417 GUIElement Struct Reference

#### Data Fields

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

#### 4.417.1 Detailed Description

Definition at line 2288 of file Component\_Text.c.

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

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

### 4.418 GUINamedType Struct Reference

#### Data Fields

- char \* **name**
- int **type**

#### 4.418.1 Detailed Description

Definition at line 2266 of file Component\_Text.c.

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

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

### 4.419 GUIScreen Struct Reference

#### Data Fields

- int **X**
- int **Y**

#### 4.419.1 Detailed Description

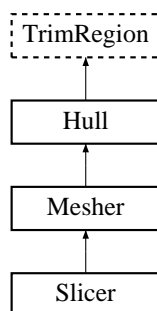
Definition at line 3064 of file Component\_Text.c.

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

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

#### 4.420 Hull Class Reference

Inheritance diagram for Hull:



##### Public Member Functions

- void **init** (void)
- **GridTrimVertex** \* **nextlower** ( **GridTrimVertex** \*)
- **GridTrimVertex** \* **nextupper** ( **GridTrimVertex** \*)

##### Additional Inherited Members

#### 4.420.1 Detailed Description

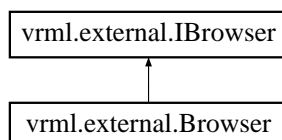
Definition at line 47 of file hull.h.

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

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

#### 4.421 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 Illegal↔ArgumentException
- void **deleteRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws Illegal↔ArgumentException
- 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)

### 4.421.1 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

## 4.422 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 **tJScript**
- struct **tjsUtils**
- struct **tjsVRMLBrowser**
- struct **tjsVRMLClasses**
- 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::tEAIHelpers EAIHelpers**
- 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::tCParser CParser**
- struct **iiglobal::tCRoutes CRoutes**
- struct **iiglobal::tCScripts CScripts**
- struct **iiglobal::tJScript JScript**
- struct **iiglobal::tjsUtils jsUtils**
- struct **iiglobal::tjsVRMLBrowser jsVRMLBrowser**
- struct **iiglobal::tjsVRMLClasses jsVRMLClasses**
- struct **iiglobal::tBindable Bindable**
- struct **iiglobal::tX3DParser X3DParser**
- struct **iiglobal::tcommon common**
- struct **iiglobal::tCursorDraw CursorDraw**

#### 4.422.1 Detailed Description

Definition at line 41 of file `iglobal.h`.

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

- `src/lib/iglobal.h`

### 4.423 IMEXPORT Struct Reference

#### Data Fields

- struct **X3D\_Node \* nodeptr**
- char \* **inlinename**
- char \* **mxname**
- char \* **as**

#### 4.423.1 Detailed Description

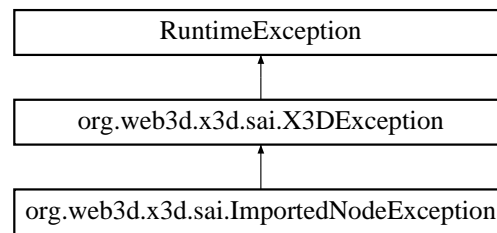
Definition at line 240 of file `CParserParser.h`.

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

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

## 4.424 org.web3d.x3d.sai.ImportedException Class Reference

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



### Public Member Functions

- **ImportedException** (String msg)

#### 4.424.1 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

## 4.425 initialRouteStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **from**
- size\_t **totalptr**

#### 4.425.1 Detailed Description

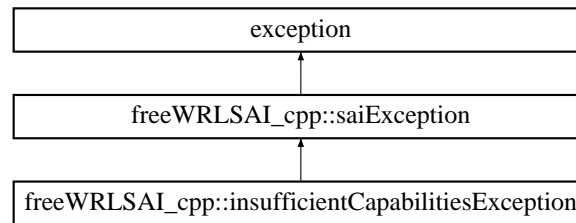
Definition at line 201 of file CRoutes.c.

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

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

## 4.426 freeWRLSAI\_cpp::insufficientCapabilitiesException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::insufficientCapabilitiesException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.426.1 Detailed Description

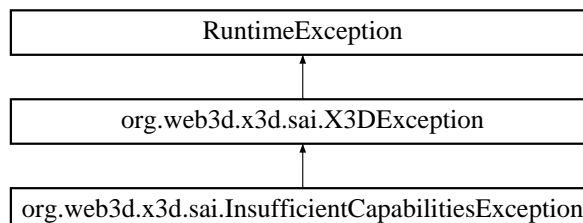
Definition at line 118 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.427 org.web3d.x3d.sai.InsufficientCapabilitiesException Class Reference

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



### Public Member Functions

- **InsufficientCapabilitiesException** (String msg)



#### 4.427.1 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

### 4.428 intersection\_info Struct Reference

#### Data Fields

- float **dist**
- float **p** [3]
- float **normal** [3]
- float **texcoord** [3]

#### 4.428.1 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

### 4.429 intTableIndex Struct Reference

#### Data Fields

- int \* **table**
- int **index**

#### 4.429.1 Detailed Description

Definition at line 166 of file jsVRMLBrowser.c.

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

- src/lib/world\_script/jsVRMLBrowser.c

#### 4.430 freeWRLSAI\_cpp::invalidAccessTypeException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidAccessTypeException:



##### Public Member Functions

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

##### Additional Inherited Members

##### 4.430.1 Detailed Description

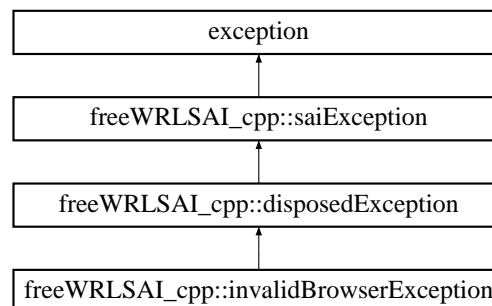
Definition at line 129 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

#### 4.431 freeWRLSAI\_cpp::invalidBrowserException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidBrowserException:



##### Public Member Functions

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

## Additional Inherited Members

### 4.431.1 Detailed Description

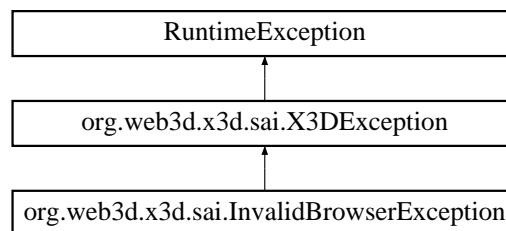
Definition at line 140 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.432 org.web3d.x3d.sai.InvalidBrowserException Class Reference

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



## Public Member Functions

- **InvalidBrowserException** (String msg)

### 4.432.1 Detailed Description

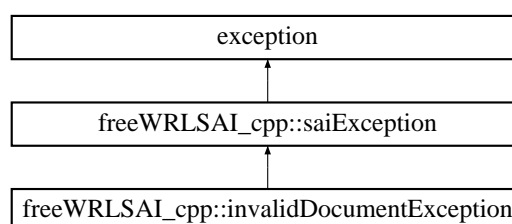
Definition at line 3 of file InvalidBrowserException.java.

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

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

## 4.433 freeWRLSAI\_cpp::invalidDocumentException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidDocumentException:



## Public Member Functions

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

## Additional Inherited Members

### 4.433.1 Detailed Description

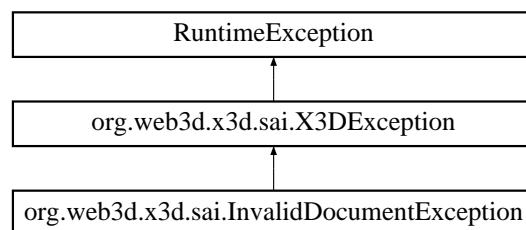
Definition at line 151 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.434 org.web3d.x3d.sai.InvalidDocumentException Class Reference

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



## Public Member Functions

- **InvalidDocumentException** (String msg)

### 4.434.1 Detailed Description

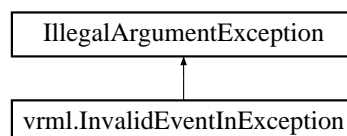
Definition at line 3 of file InvalidDocumentException.java.

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

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

## 4.435 vrml.InvalidEventInException Class Reference

Inheritance diagram for vrml.InvalidEventInException:



## Public Member Functions

- **InvalidEventInException** (String s)

### 4.435.1 Detailed Description

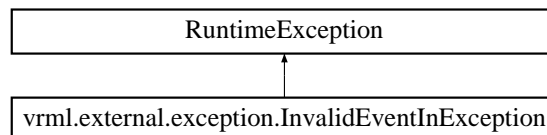
Definition at line 6 of file InvalidEventInException.java.

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

- src/java/vrml/InvalidEventInException.java

## 4.436 vrml.external.exception.InvalidEventInException Class Reference

Inheritance diagram for vrml.external.exception.InvalidEventInException:



## Public Member Functions

- **InvalidEventInException** ()  
Constructs an **InvalidEventInException** (p. 287) with no detail message.
- **InvalidEventInException** (String s)  
Constructs an **InvalidEventInException** (p. 287) with the specified detail message.

### 4.436.1 Detailed Description

Definition at line 3 of file InvalidEventInException.java.

### 4.436.2 Constructor & Destructor Documentation

#### 4.436.2.1 InvalidEventInException()

```
vrml.external.exception.InvalidEventInException.InvalidEventInException (
    String s ) [inline]
```

Constructs an **InvalidEventInException** (p. 287) with the specified detail message.

A detail message is a String that describes this particular exception.

**Parameters**

|   |                    |
|---|--------------------|
| s | the detail message |
|---|--------------------|

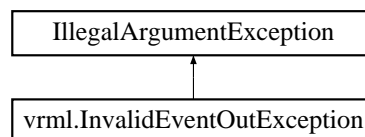
Definition at line 17 of file InvalidEventInException.java.

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

- src/java/vrml/external/exception/InvalidEventInException.java

## 4.437 vrml.InvalidEventOutException Class Reference

Inheritance diagram for vrml.InvalidEventOutException:

**Public Member Functions**

- **InvalidEventOutException** (String s)

### 4.437.1 Detailed Description

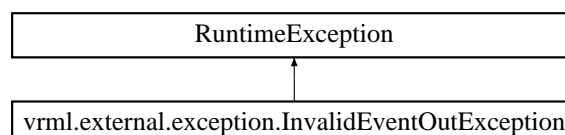
Definition at line 6 of file InvalidEventOutException.java.

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

- src/java/vrml/InvalidEventOutException.java

## 4.438 vrml.external.exception.InvalidEventOutException Class Reference

Inheritance diagram for vrml.external.exception.InvalidEventOutException:

**Public Member Functions**

- **InvalidEventOutException** (String s)

### 4.438.1 Detailed Description

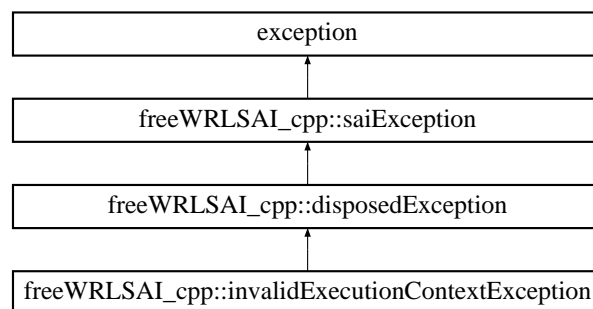
Definition at line 3 of file InvalidEventOutException.java.

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

- src/java/vrml/external/exception/InvalidEventOutException.java

## 4.439 freeWRLSAI\_cpp::invalidExecutionContextException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidExecutionContextException:



### Public Member Functions

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

### Additional Inherited Members

### 4.439.1 Detailed Description

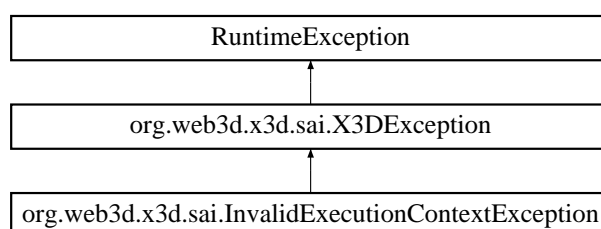
Definition at line 253 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.440 org.web3d.x3d.sai.InvalidExecutionContextException Class Reference

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



## Public Member Functions

- **InvalidExecutionContextException** (String msg)

### 4.440.1 Detailed Description

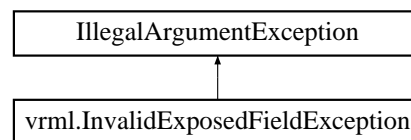
Definition at line 3 of file InvalidExecutionContextException.java.

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

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

## 4.441 vrml.InvalidExposedFieldException Class Reference

Inheritance diagram for vrml.InvalidExposedFieldException:



## Public Member Functions

- **InvalidExposedFieldException** (String s)

### 4.441.1 Detailed Description

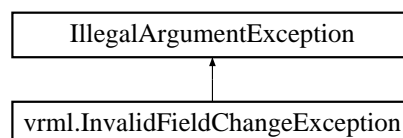
Definition at line 6 of file InvalidExposedFieldException.java.

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

- src/java/vrml/InvalidExposedFieldException.java

## 4.442 vrml.InvalidFieldChangeException Class Reference

Inheritance diagram for vrml.InvalidFieldChangeException:





## Public Member Functions

- **InvalidFieldChangeException** (String s)

### 4.442.1 Detailed Description

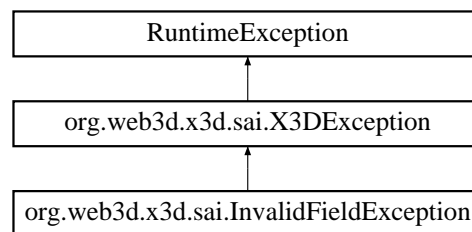
Definition at line 6 of file InvalidFieldChangeException.java.

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

- src/java/vrml/InvalidFieldChangeException.java

## 4.443 org.web3d.x3d.sai.InvalidFieldException Class Reference

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



## Public Member Functions

- **InvalidFieldException** (String msg)

### 4.443.1 Detailed Description

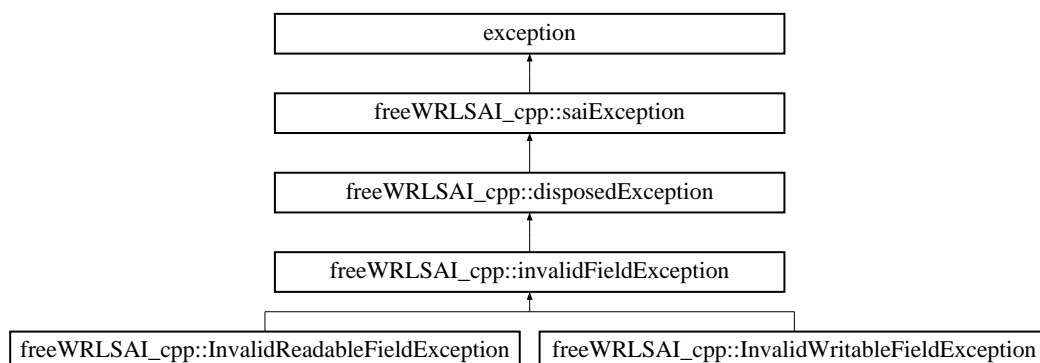
Definition at line 3 of file InvalidFieldException.java.

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

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

## 4.444 freeWRLSAI\_cpp::invalidFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidFieldException:



## Public Member Functions

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

## Additional Inherited Members

### 4.444.1 Detailed Description

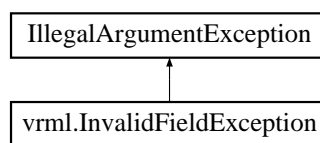
Definition at line 264 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.445 vrml.InvalidFieldException Class Reference

Inheritance diagram for vrml.InvalidFieldException:



## Public Member Functions

- **InvalidFieldException** (String s)

### 4.445.1 Detailed Description

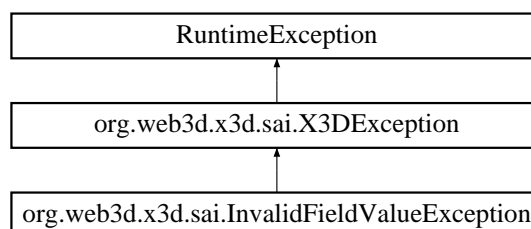
Definition at line 6 of file InvalidFieldException.java.

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

- src/java/vrml/InvalidFieldException.java

## 4.446 org.web3d.x3d.sai.InvalidFieldValueException Class Reference

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



## Public Member Functions

- **InvalidFieldValueException** (String msg)

### 4.446.1 Detailed Description

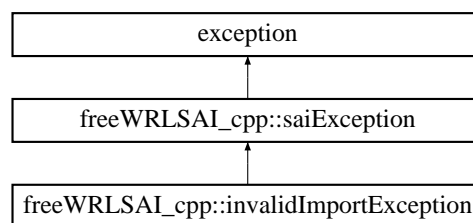
Definition at line 3 of file InvalidFieldValueException.java.

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

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

## 4.447 freeWRLSAI\_cpp::invalidImportException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidImportException:



## Public Member Functions

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

## Additional Inherited Members

### 4.447.1 Detailed Description

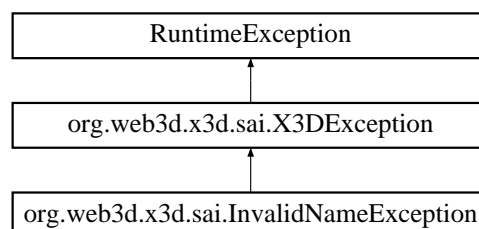
Definition at line 107 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.448 org.web3d.x3d.sai.InvalidNameException Class Reference

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



## Public Member Functions

- **InvalidNameException** (String str)

### 4.448.1 Detailed Description

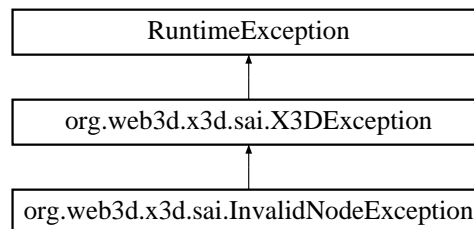
Definition at line 3 of file InvalidNameException.java.

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

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

## 4.449 org.web3d.x3d.sai.InvalidNodeException Class Reference

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



## Public Member Functions

- **InvalidNodeException** (String str)

### 4.449.1 Detailed Description

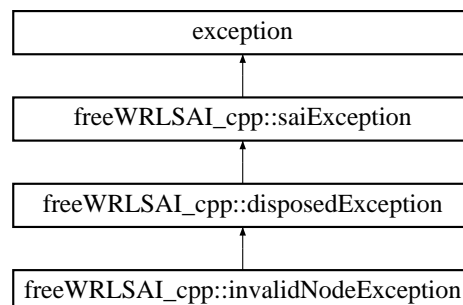
Definition at line 3 of file InvalidNodeException.java.

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

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

## 4.450 freeWRLSAI\_cpp::invalidNodeException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidNodeException:



## Public Member Functions

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

## Additional Inherited Members

### 4.450.1 Detailed Description

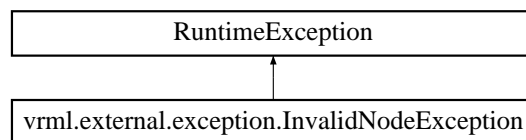
Definition at line 275 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.451 vrml.external.exception.InvalidNodeException Class Reference

Inheritance diagram for vrml.external.exception.InvalidNodeException:



## Public Member Functions

- **InvalidNodeException** ()  
Constructs an **InvalidNodeException** (p. 295) with no detail message.
- **InvalidNodeException** (String s)  
Constructs an **InvalidNodeException** (p. 295) with the specified detail message.

### 4.451.1 Detailed Description

Definition at line 3 of file InvalidNodeException.java.

### 4.451.2 Constructor & Destructor Documentation

#### 4.451.2.1 InvalidNodeException()

```
vrml.external.exception.InvalidNodeException.InvalidNodeException (
    String s ) [inline]
```

Constructs an **InvalidNodeException** (p. 295) with the specified detail message.

A detail message is a String that describes this particular exception.

## Parameters

|   |                    |
|---|--------------------|
| s | the detail message |
|---|--------------------|

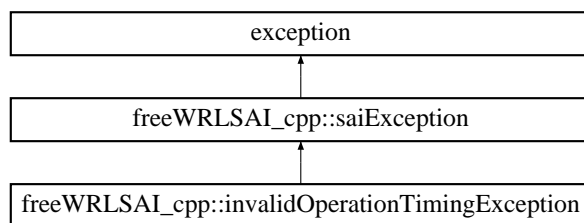
Definition at line 17 of file InvalidNodeException.java.

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

- src/java/vrml/external/exception/InvalidNodeException.java

## 4.452 freeWRLSAI\_cpp::invalidOperationTimingException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidOperationTimingException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.452.1 Detailed Description

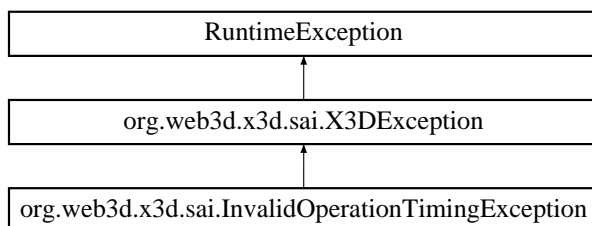
Definition at line 162 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.453 org.web3d.x3d.sai.InvalidOperationTimingException Class Reference

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



**Public Member Functions**

- **InvalidOperationTimingException** (String msg)

**4.453.1 Detailed Description**

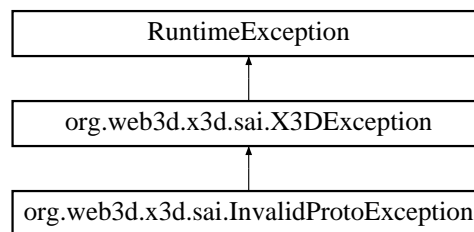
Definition at line 3 of file InvalidOperationTimingException.java.

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

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

**4.454 org.web3d.x3d.sai.InvalidProtoException Class Reference**

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

**Public Member Functions**

- **InvalidProtoException** (String msg)

**4.454.1 Detailed Description**

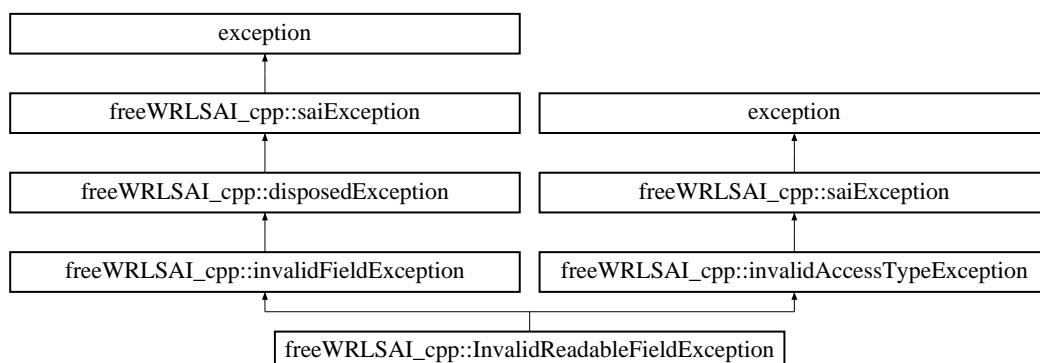
Definition at line 3 of file InvalidProtoException.java.

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

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

**4.455 freeWRLSAI\_cpp::InvalidReadableFieldException Class Reference**

Inheritance diagram for freeWRLSAI\_cpp::InvalidReadableFieldException:



## Public Member Functions

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

## Additional Inherited Members

### 4.455.1 Detailed Description

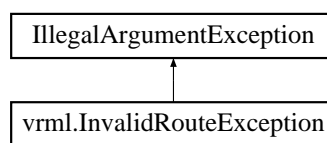
Definition at line 298 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.456 vrml.InvalidRouteException Class Reference

Inheritance diagram for vrml.InvalidRouteException:



## Public Member Functions

- **InvalidRouteException** (String s)

### 4.456.1 Detailed Description

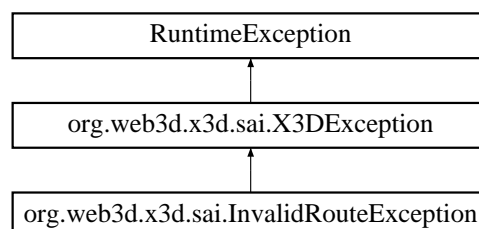
Definition at line 6 of file InvalidRouteException.java.

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

- src/java/vrml/InvalidRouteException.java

## 4.457 org.web3d.x3d.sai.InvalidRouteException Class Reference

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





## Public Member Functions

- **InvalidRouteException** (String msg)

### 4.457.1 Detailed Description

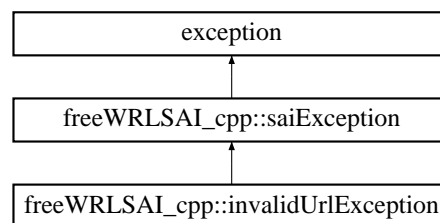
Definition at line 3 of file InvalidRouteException.java.

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

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

## 4.458 freeWRLSAI\_cpp::invalidUrlException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidUrlException:



## Public Member Functions

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

### Additional Inherited Members

### 4.458.1 Detailed Description

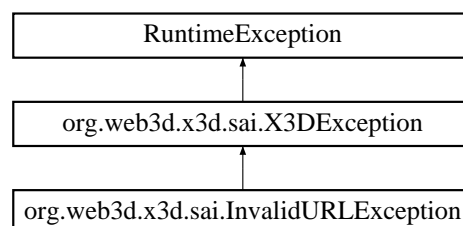
Definition at line 173 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.459 org.web3d.x3d.sai.InvalidURLException Class Reference

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



## Public Member Functions

- **InvalidURLException** (String str)

### 4.459.1 Detailed Description

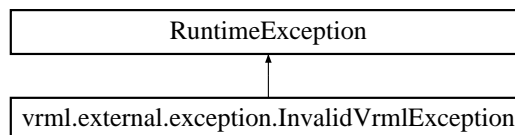
Definition at line 3 of file InvalidURLException.java.

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

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

## 4.460 vrml.external.exception.InvalidVrmlException Class Reference

Inheritance diagram for vrml.external.exception.InvalidVrmlException:



## Public Member Functions

- **InvalidVrmlException** ()  
Constructs an **InvalidVrmlException** (p. 300) with no detail message.
- **InvalidVrmlException** (String s)  
Constructs an **InvalidVrmlException** (p. 300) with the specified detail message.

### 4.460.1 Detailed Description

Definition at line 3 of file InvalidVrmlException.java.

### 4.460.2 Constructor & Destructor Documentation

#### 4.460.2.1 InvalidVrmlException()

```
vrml.external.exception.InvalidVrmlException.InvalidVrmlException (
    String s ) [inline]
```

Constructs an **InvalidVrmlException** (p. 300) with the specified detail message.

A detail message is a String that describes this particular exception.

## Parameters

|   |                    |
|---|--------------------|
| s | the detail message |
|---|--------------------|

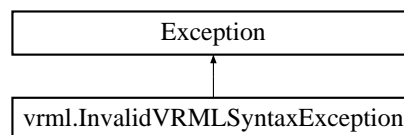
Definition at line 17 of file InvalidVrmlException.java.

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

- src/java/vrml/external/exception/InvalidVrmlException.java

## 4.461 vrml.InvalidVRMLSyntaxException Class Reference

Inheritance diagram for vrml.InvalidVRMLSyntaxException:



### Public Member Functions

- **InvalidVRMLSyntaxException** (String s)

#### 4.461.1 Detailed Description

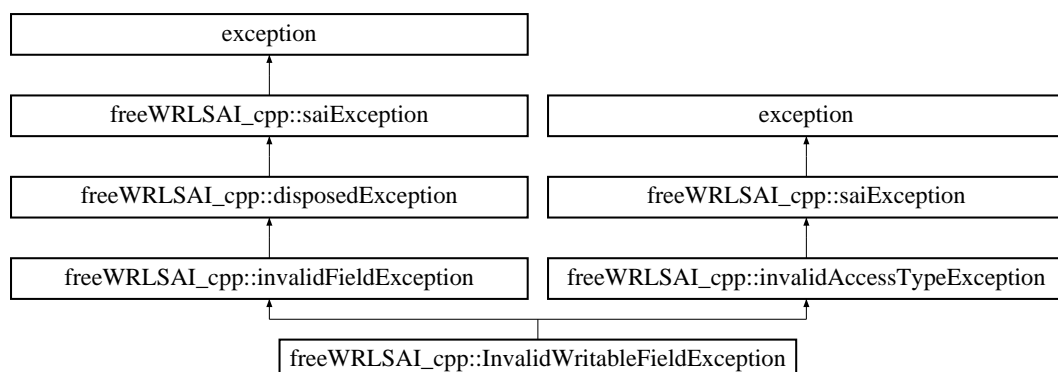
Definition at line 3 of file InvalidVRMLSyntaxException.java.

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

- src/java/vrml/InvalidVRMLSyntaxException.java

## 4.462 freeWRLSAI\_cpp::InvalidWritableFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::InvalidWritableFieldException:



## Public Member Functions

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

## Additional Inherited Members

### 4.462.1 Detailed Description

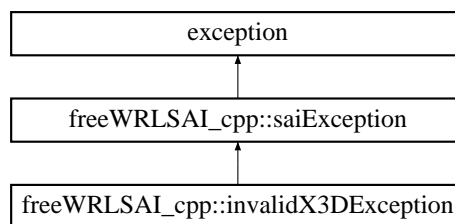
Definition at line 287 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.463 freeWRLSAI\_cpp::invalidX3DException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidX3DException:



## Public Member Functions

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

## Additional Inherited Members

### 4.463.1 Detailed Description

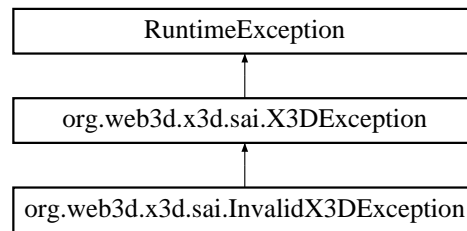
Definition at line 184 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.464 org.web3d.x3d.sai.InvalidX3DException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidX3DException:



### Public Member Functions

- **InvalidX3DException** (String str)

#### 4.464.1 Detailed Description

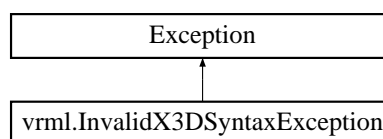
Definition at line 3 of file InvalidX3DException.java.

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

- src/java/org/web3d/x3d/sai/InvalidX3DException.java

## 4.465 vrml.InvalidX3DSyntaxException Class Reference

Inheritance diagram for vrml.InvalidX3DSyntaxException:



### Public Member Functions

- **InvalidX3DSyntaxException** (String s)

#### 4.465.1 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

## 4.466 ivec2 Struct Reference

### Data Fields

- int **X**
- int **Y**

### 4.466.1 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

## 4.467 ivec4 Struct Reference

### Data Fields

- int **X**
- int **Y**
- int **W**
- int **H**

### 4.467.1 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

## 4.468 Jarcloc Class Reference

### Public Member Functions

- void **init** (Arc\_ptr a, long first, long last)
- **TrimVertex** \* **getnextpt** (void)
- **TrimVertex** \* **getprevpt** (void)
- void **reverse** ()

#### 4.468.1 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

### 4.469 JMATRIX Struct Reference

#### Data Fields

- double **mat** [16]
- float **normal** [9]

#### 4.469.1 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

### 4.470 JSLoadPropElement Struct Reference

#### Data Fields

- JSClass \* **class**
- void \* **constr**
- void \* **Functions**
- void \* **Properties**
- char \* **id**

#### 4.470.1 Detailed Description

Definition at line 856 of file jsVRMLClasses.c.

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

- src/lib/world\_script/jsVRMLClasses.c

### 4.471 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).*

### 4.471.1 Detailed Description

The structure used to configure a JSON parser object.

Definition at line 121 of file cson\_amalgamation\_core.c.

### 4.471.2 Field Documentation

#### 4.471.2.1 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.

#### 4.471.2.2 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.



#### 4.471.2.3 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.

#### 4.471.2.4 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.

#### 4.471.2.5 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

## 4.472 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**

### 4.472.1 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

## 4.473 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
```

#### 4.473.1 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

### 4.474 key Struct Reference

#### Data Fields

- char **key**
- unsigned int **hit**

#### 4.474.1 Detailed Description

Definition at line 174 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

### 4.475 keyHit Struct Reference

#### Data Fields

- int **direction**
- double **epoch**
- double **era**
- int **once**

#### 4.475.1 Detailed Description

Definition at line 178 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

### 4.476 keyval Struct Reference

#### Data Fields

- char \* **key**
- char \* **val**
- cson\_value \* **cv**

### 4.476.1 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

## 4.477 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**

#### 4.477.1 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

### 4.478 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**

#### 4.478.1 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

### 4.479 layout\_scale\_item Struct Reference

#### Data Fields

- float **scale** [2]
- int **scalemode** [2]

#### 4.479.1 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

## 4.480 layoutmode Struct Reference

### Data Fields

- char \* **key**
- int **type**

### 4.480.1 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

## 4.481 linkedlist\_data\_s Struct Reference

### Data Fields

- **linkedlist\_datablock\_internal** \* **first\_block**
- **linkedlist\_datablock\_internal** \* **last\_block**

### 4.481.1 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

## 4.482 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]

### 4.482.1 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

## 4.483 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**

### 4.483.1 Detailed Description

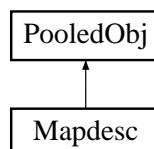
Definition at line 158 of file mpeg\_berkley.h.

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

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

## 4.484 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 **bboxTooBig** (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 **maxxrate**
- REAL **maxtrate**
- REAL **bboxsize** [MAXCOORDS]



## Friends

- class **Maplist**

### 4.484.1 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

## 4.485 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)

### 4.485.1 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

## 4.486 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**

### 4.486.1 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

## 4.487 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)

### 4.487.1 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

## 4.488 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

### 4.488.1 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

## 4.489 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

#### 4.489.1 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

### 4.490 mb\_addr\_inc\_entry Struct Reference

#### Data Fields

- int **value**
- int **num\_bits**

#### 4.490.1 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

### 4.491 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**

#### 4.491.1 Detailed Description

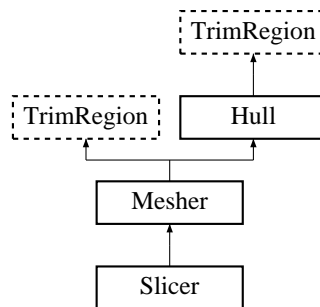
Definition at line 757 of file mpeg\_berkley.h.

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

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

## 4.492 Mesher Class Reference

Inheritance diagram for Mesher:



### Public Member Functions

- **Mesher** ( **Backend** & )
- void **init** (unsigned int)
- void **mesh** (void)

### Additional Inherited Members

#### 4.492.1 Detailed Description

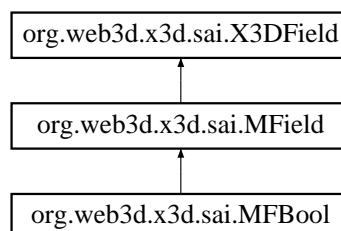
Definition at line 47 of file mesher.h.

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

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

## 4.493 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)

### 4.493.1 Detailed Description

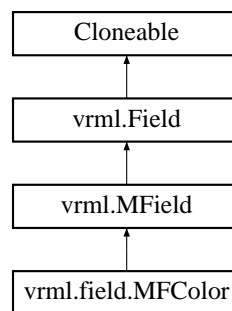
Definition at line 3 of file `MFBool.java`.

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

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

## 4.494 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

### 4.494.1 Detailed Description

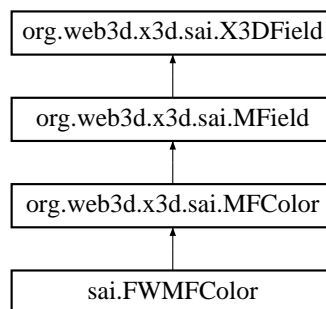
Definition at line 10 of file MFColor.java.

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

- src/java/vrml/field/MFColor.java

## 4.495 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)

### 4.495.1 Detailed Description

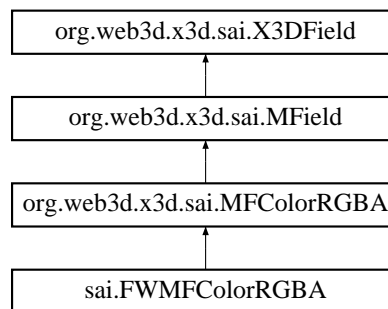
Definition at line 3 of file MFColor.java.

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

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

## 4.496 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)

### 4.496.1 Detailed Description

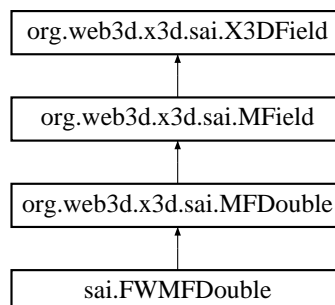
Definition at line 3 of file MFColorRGBA.java.

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

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

## 4.497 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)

### 4.497.1 Detailed Description

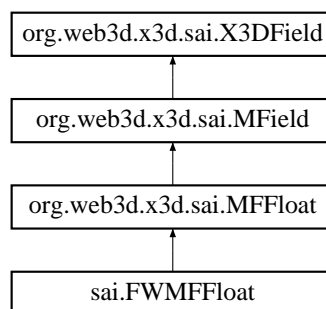
Definition at line 3 of file MFDouble.java.

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

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

## 4.498 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)

### 4.498.1 Detailed Description

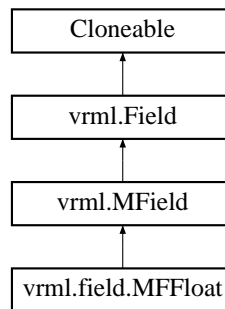
Definition at line 3 of file MFFloat.java.

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

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

## 4.499 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

#### 4.499.1 Detailed Description

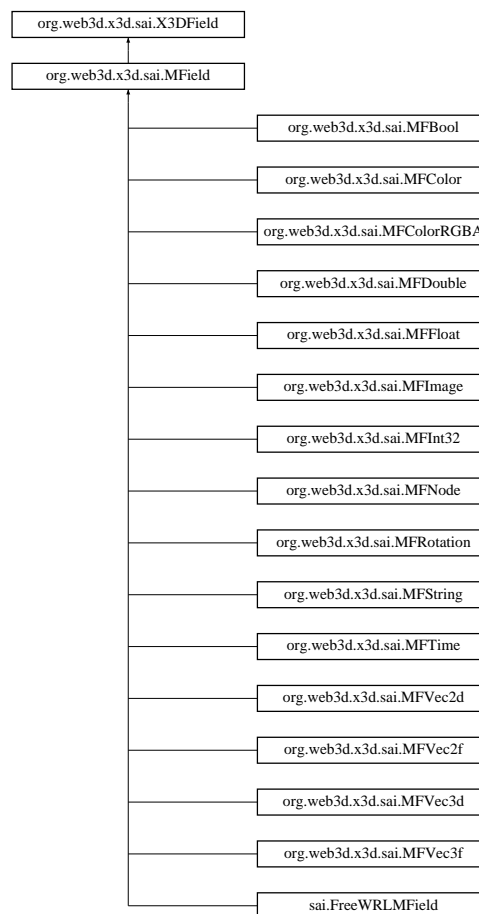
Definition at line 10 of file MFFloat.java.

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

- src/java/vrml/field/MFFloat.java

## 4.500 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

### 4.500.1 Detailed Description

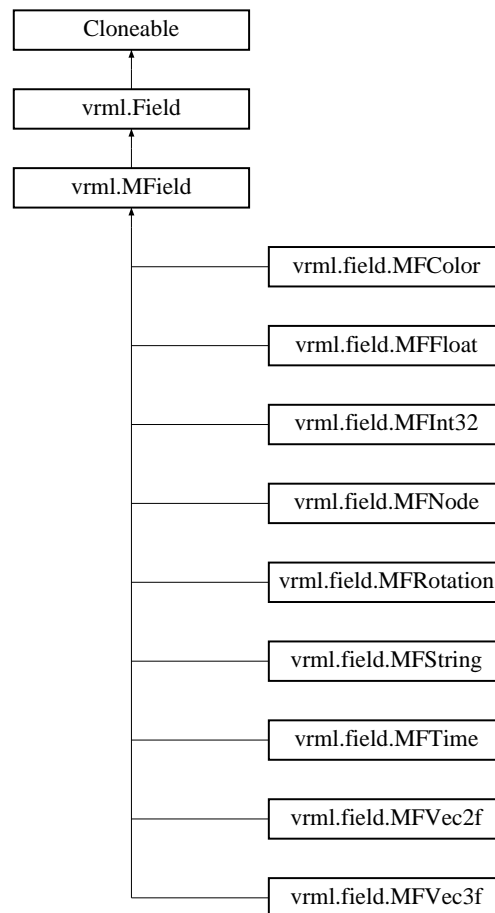
Definition at line 3 of file MField.java.

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

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

## 4.501 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)

### 4.501.1 Detailed Description

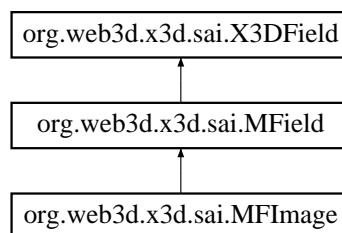
Definition at line 4 of file MField.java.

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

- src/java/vrml/MField.java

## 4.502 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)

### 4.502.1 Detailed Description

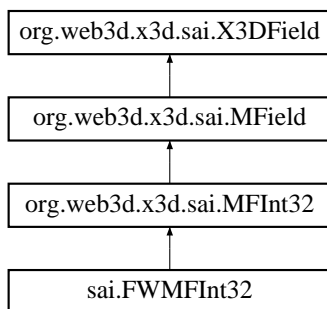
Definition at line 4 of file MFImage.java.

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

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

## 4.503 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)

### 4.503.1 Detailed Description

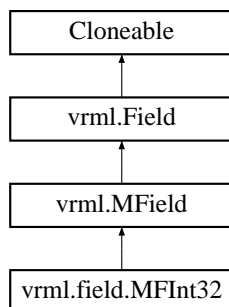
Definition at line 3 of file MFInt32.java.

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

- src/java/org/web3d/x3d/sai/MFInt32.java

## 4.504 vrml.field.MFInt32 Class Reference

Inheritance diagram for vrml.field.MFInt32:



## Public Member Functions

- **MFInt32** (int[] value)
- **MFInt32** (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, **SFInt32** sflnt32)
- void **set1Value** (int index, **ConstSFInt32** sflnt32)
- void **addValue** (int value)
- void **addValue** ( **SFInt32** sflnt32)
- void **addValue** ( **ConstSFInt32** sflnt32)
- void **insertValue** (int index, int value)
- void **insertValue** (int index, **SFInt32** sflnt32)
- void **insertValue** (int index, **ConstSFInt32** sflnt32)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.504.1 Detailed Description

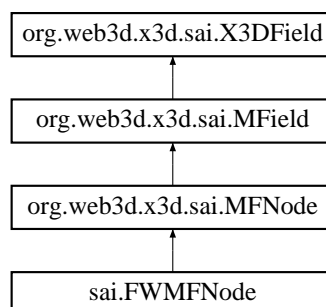
Definition at line 10 of file MFInt32.java.

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

- src/java/vrml/field/MFInt32.java

## 4.505 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)

### 4.505.1 Detailed Description

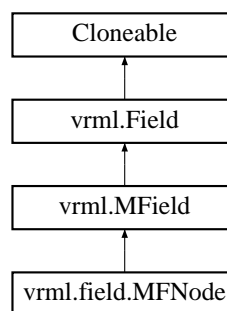
Definition at line 3 of file MFNode.java.

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

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

## 4.506 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

### 4.506.1 Detailed Description

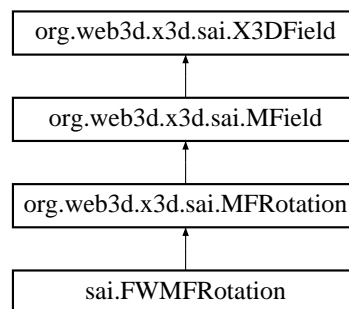
Definition at line 10 of file MFNode.java.

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

- src/java/vrml/field/MFNode.java

## 4.507 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)

### 4.507.1 Detailed Description

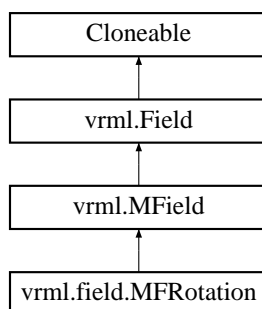
Definition at line 3 of file MFRotation.java.

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

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

## 4.508 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

#### 4.508.1 Detailed Description

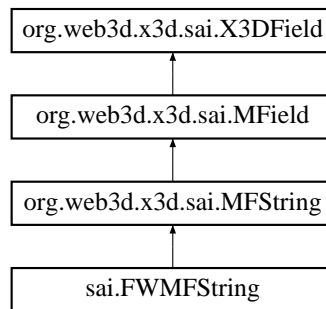
Definition at line 10 of file MFRotation.java.

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

- src/java/vrml/field/MFRotation.java

## 4.509 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)

### 4.509.1 Detailed Description

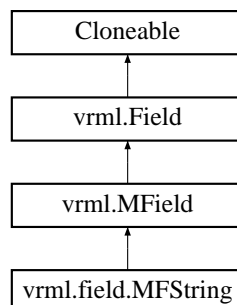
Definition at line 3 of file MFString.java.

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

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

## 4.510 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

### 4.510.1 Detailed Description

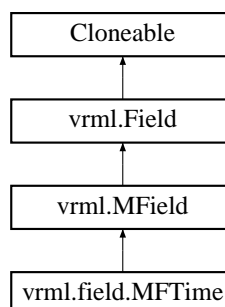
Definition at line 10 of file MFString.java.

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

- src/java/vrml/field/MFString.java

## 4.511 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

### 4.511.1 Detailed Description

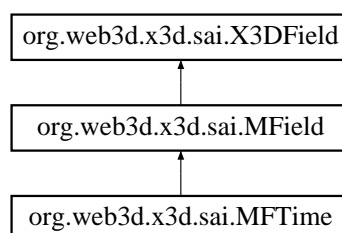
Definition at line 10 of file MFTime.java.

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

- src/java/vrml/field/MFTime.java

## 4.512 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)

### 4.512.1 Detailed Description

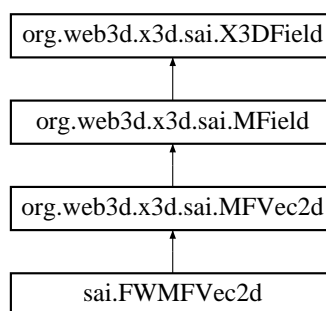
Definition at line 3 of file MFTTime.java.

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

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

## 4.513 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)

### 4.513.1 Detailed Description

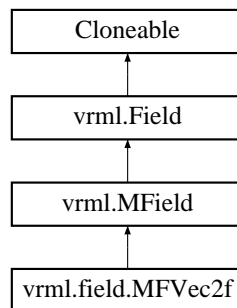
Definition at line 3 of file MFVec2d.java.

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

- src/java/org/web3d/x3d/sai/MFVec2d.java

## 4.514 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

### 4.514.1 Detailed Description

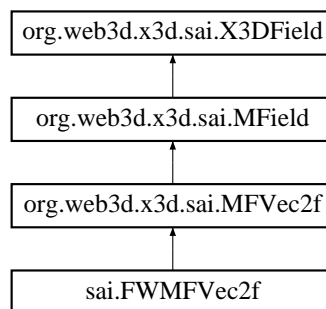
Definition at line 10 of file MFVec2f.java.

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

- src/java/vrml/field/MFVec2f.java

## 4.515 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)

### 4.515.1 Detailed Description

Definition at line 3 of file MFVec2f.java.

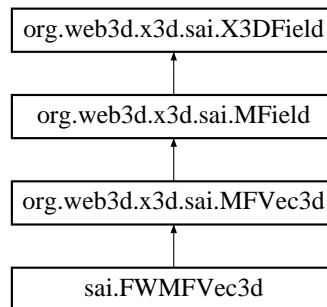
The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/MFVec2f.java



## 4.516 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)

### 4.516.1 Detailed Description

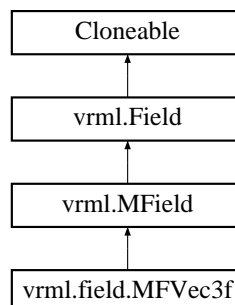
Definition at line 3 of file MFVec3d.java.

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

- src/java/org/web3d/x3d/sai/MFVec3d.java

## 4.517 vrml.field.MFVec3f Class Reference

Inheritance diagram for vrml.field.MFVec3f:



## Public Member Functions

- **MVec3f** (float[] vec3fs)
- **MVec3f** (int size, float[] vec3fs)
- **MVec3f** (float[][] vec3fs)
- void **getValue** (float[] vec3fs)
- void **getValue** (float[][] vec3fs)
- void **get1Value** (int index, float[] vec3fs)
- void **get1Value** (int index, **SVec3f** 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, **SVec3f** sfVec3f)
- void **set1Value** (int index, **ConstSVec3f** sfVec3f)
- void **addValue** (float x, float y, float z)
- void **addValue** ( **SVec3f** sfVec3f)
- void **addValue** ( **ConstSVec3f** sfVec3f)
- void **insertValue** (int index, float x, float y, float z)
- void **insertValue** (int index, **SVec3f** sfVec3f)
- void **insertValue** (int index, **ConstSVec3f** sfVec3f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.517.1 Detailed Description

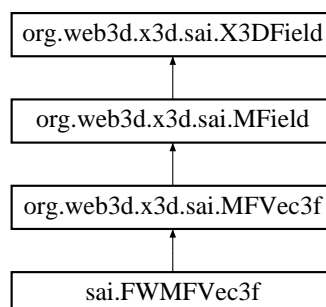
Definition at line 10 of file MVec3f.java.

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

- src/java/vrml/field/MVec3f.java

## 4.518 org.web3d.x3d.sai.MVec3f Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MVec3f:



## 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)

### 4.518.1 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

## 4.519 mode\_name Struct Reference

### Data Fields

- int **mode**
- const char \* **name**

### 4.519.1 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

## 4.520 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**

#### 4.520.1 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

## 4.521 Monotonizer Class Reference

### Public Member Functions

- **Monotonizer** ( **ArcTessellator** &at, **Pool** &ap, **Pool** &p, jmp\_buf &j)
- int **decompose** ( **Bin** &, REAL)

#### 4.521.1 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`

### 4.522 `motion_vectors_entry` Struct Reference

#### Data Fields

- `int` **code**
- `int` **num\_bits**

#### 4.522.1 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`

### 4.523 `Multi_Any` Struct Reference

#### Data Fields

- `int` **n**
- `char *` **p**

#### 4.523.1 Detailed Description

Definition at line 130 of file `FWTYPE.h`.

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

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

### 4.524 `Multi_Bool` Struct Reference

#### Data Fields

- `int` **n**
- `int *` **p**
- `size_t` **n**

#### 4.524.1 Detailed Description

Definition at line 2456 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

### 4.525 Multi\_Color Struct Reference

#### Data Fields

- int **n**
- struct **SFColor** \* **p**
- size\_t **n**

#### 4.525.1 Detailed Description

Definition at line 2462 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

### 4.526 Multi\_ColorRGBA Struct Reference

#### Data Fields

- int **n**
- struct **SFColorRGBA** \* **p**
- size\_t **n**

#### 4.526.1 Detailed Description

Definition at line 2464 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

## 4.527 Multi\_Double Struct Reference

### Data Fields

- int **n**
- double \* **p**
- size\_t **n**

### 4.527.1 Detailed Description

Definition at line 2476 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

## 4.528 Multi\_Float Struct Reference

### Data Fields

- int **n**
- float \* **p**
- size\_t **n**

### 4.528.1 Detailed Description

Definition at line 2450 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

## 4.529 Multi\_Int32 Struct Reference

### Data Fields

- int **n**
- int \* **p**
- size\_t **n**

### 4.529.1 Detailed Description

Definition at line 2458 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

## 4.530 Multi\_Matrix3d Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix3d** \* **p**
- size\_t **n**

### 4.530.1 Detailed Description

Definition at line 2480 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

## 4.531 Multi\_Matrix3f Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix3f** \* **p**
- size\_t **n**

### 4.531.1 Detailed Description

Definition at line 2478 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



## 4.532 Multi\_Matrix4d Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix4d** \* **p**
- size\_t **n**

### 4.532.1 Detailed Description

Definition at line 2484 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

## 4.533 Multi\_Matrix4f Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix4f** \* **p**
- size\_t **n**

### 4.533.1 Detailed Description

Definition at line 2482 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

## 4.534 Multi\_Node Struct Reference

### Data Fields

- int **n**
- struct **X3D\_Node** \*\* **p**
- size\_t **n**
- void \*\* **p**

#### 4.534.1 Detailed Description

Definition at line 2460 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

### 4.535 Multi\_Rotation Struct Reference

#### Data Fields

- int **n**
- struct **SFRotation** \* **p**
- size\_t **n**

#### 4.535.1 Detailed Description

Definition at line 2452 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

### 4.536 Multi\_String Struct Reference

#### Data Fields

- int **n**
- struct **Uni\_String** \*\* **p**
- size\_t **n**

#### 4.536.1 Detailed Description

Definition at line 2468 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

## 4.537 Multi\_Time Struct Reference

### Data Fields

- int **n**
- double \* **p**
- size\_t **n**

### 4.537.1 Detailed Description

Definition at line 2466 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

## 4.538 Multi\_Vec2d Struct Reference

### Data Fields

- int **n**
- struct **SFVec2d** \* **p**
- size\_t **n**

### 4.538.1 Detailed Description

Definition at line 2486 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

## 4.539 Multi\_Vec2f Struct Reference

### Data Fields

- int **n**
- struct **SFVec2f** \* **p**
- size\_t **n**

#### 4.539.1 Detailed Description

Definition at line 2470 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

### 4.540 Multi\_Vec3d Struct Reference

#### Data Fields

- int **n**
- struct **SFVec3d** \* **p**
- size\_t **n**

#### 4.540.1 Detailed Description

Definition at line 2474 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

### 4.541 Multi\_Vec3f Struct Reference

#### Data Fields

- int **n**
- struct **SFVec3f** \* **p**
- size\_t **n**
- struct **SFColor** \* **p**

#### 4.541.1 Detailed Description

Definition at line 2454 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

## 4.542 Multi\_Vec4d Struct Reference

### Data Fields

- int **n**
- struct **SFVec4d** \* **p**
- size\_t **n**

### 4.542.1 Detailed Description

Definition at line 2490 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

## 4.543 Multi\_Vec4f Struct Reference

### Data Fields

- int **n**
- struct **SFVec4f** \* **p**
- size\_t **n**

### 4.543.1 Detailed Description

Definition at line 2488 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

## 4.544 multiTexParams Struct Reference

### Data Fields

- int **multitex\_mode** [2]
- int **multitex\_source** [2]
- int **multitex\_function**

#### 4.544.1 Detailed Description

Definition at line 49 of file RenderTextures.c.

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

- src/lib/opengl/RenderTextures.c
- src/lib/opengl/Textures.c

### 4.545 myArgs Struct Reference

#### Data Fields

- struct **X3D\_Node** \* **node**
- **ttglobal** **tg**

#### 4.545.1 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

### 4.546 MyVertex Struct Reference

#### Data Fields

- struct **SFVec3f** **vert**
- struct **SFVec3f** **norm**
- struct **SFVec2f** **tc**
- struct **SFVec3f** **flat\_norm**
- struct **SFColorRGBA** **col**

#### 4.546.1 Detailed Description

Definition at line 53 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

## 4.547 name\_num Struct Reference

### Data Fields

- char \* **facename**
- char \* **family**
- char \* **style**
- char \* **style2**
- int **num**
- int **bold**
- int **italic**
- int **ifamily**

### 4.547.1 Detailed Description

Definition at line 630 of file Component\_Text.c.

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

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

## 4.548 navmode Struct Reference

### Data Fields

- char \* **key**
- int **type**

### 4.548.1 Detailed Description

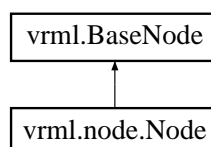
Definition at line 553 of file Viewer.c.

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

- src/lib/scenegraph/Viewer.c

## 4.549 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)

### 4.549.1 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

## 4.550 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

### 4.550.1 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



## 4.551 nodedistance Struct Reference

### Data Fields

- struct **X3D\_Node** \* **node**
- float **dist**

### 4.551.1 Detailed Description

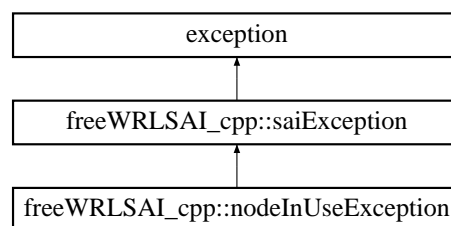
Definition at line 55 of file Component\_Picking.c.

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

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

## 4.552 freeWRLSAI\_cpp::nodeInUseException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::nodeInUseException:



### Public Member Functions

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

### Additional Inherited Members

### 4.552.1 Detailed Description

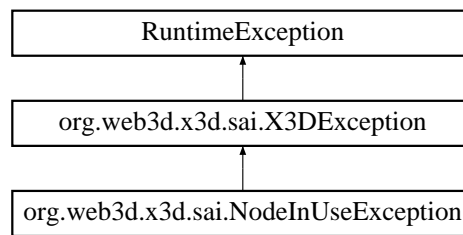
Definition at line 206 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.553 org.web3d.x3d.sai.NodeInUseException Class Reference

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



### Public Member Functions

- **NodeInUseException** (String msg)

#### 4.553.1 Detailed Description

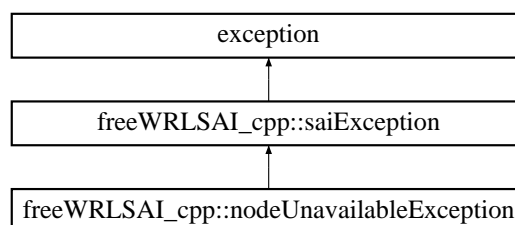
Definition at line 3 of file NodeInUseException.java.

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

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

## 4.554 freeWRLSAI\_cpp::nodeUnavailableException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::nodeUnavailableException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.554.1 Detailed Description

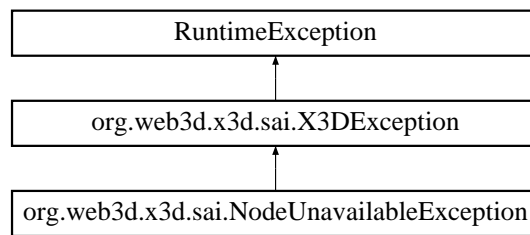
Definition at line 195 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.555 org.web3d.x3d.sai.NodeUnavailableException Class Reference

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



### Public Member Functions

- **NodeUnavailableException** (String msg)

#### 4.555.1 Detailed Description

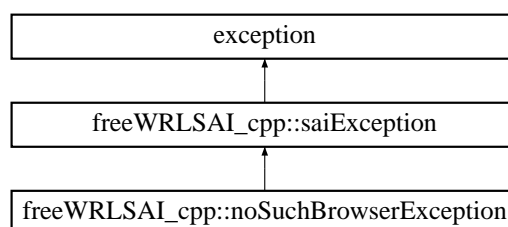
Definition at line 3 of file NodeUnavailableException.java.

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

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

## 4.556 freeWRLSAI\_cpp::noSuchBrowserException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::noSuchBrowserException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.556.1 Detailed Description

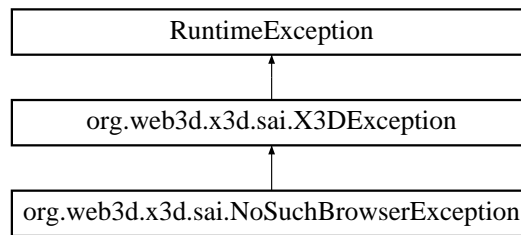
Definition at line 73 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.557 org.web3d.x3d.sai.NoSuchBrowserException Class Reference

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



### Public Member Functions

- **NoSuchBrowserException** (String msg)

#### 4.557.1 Detailed Description

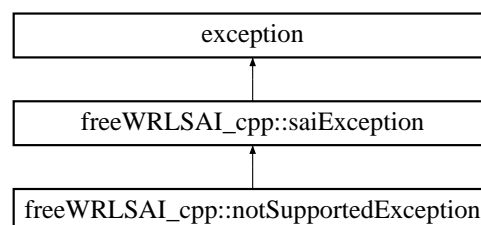
Definition at line 3 of file NoSuchBrowserException.java.

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

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

## 4.558 freeWRLSAI\_cpp::notSupportedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::notSupportedException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.558.1 Detailed Description

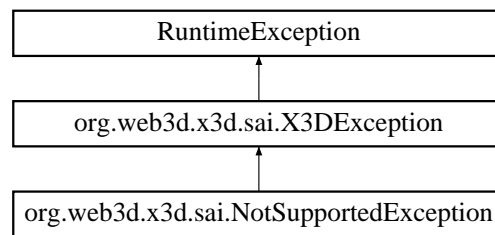
Definition at line 229 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.559 org.web3d.x3d.sai.NotSupportedException Class Reference

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



### Public Member Functions

- **NotSupportedException** (String msg)

#### 4.559.1 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

## 4.560 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**

#### 4.560.1 Detailed Description

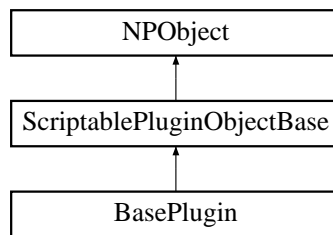
Definition at line 327 of file npruntime.h.

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

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

## 4.561 NObject Struct Reference

Inheritance diagram for NObject:



### Data Fields

- **NPClass \* \_class**
- **uint32\_t referenceCount**

#### 4.561.1 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

## 4.562 nsByteRange Struct Reference

### Data Fields

- **PRInt32 offset**
- **PRUint32 length**
- **struct nsByteRange \* next**

#### 4.562.1 Detailed Description

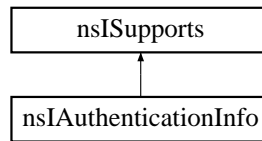
Definition at line 126 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.563 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**

#### 4.563.1 Detailed Description

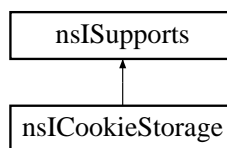
Definition at line 56 of file nsIJVMAuthTools.idl.

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

- src/plugin\_win32/include/nsIJVMAuthTools.idl

## 4.564 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.*

#### 4.564.1 Detailed Description

Definition at line 51 of file nsICookieStorage.idl.

## 4.564.2 Member Function Documentation

### 4.564.2.1 `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.

### 4.564.2.2 `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`

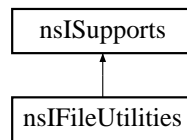
## 4.565 nsIFileUtilities Interface Reference

The **nsIFileUtilities** (p. 362) interface provides access to random file operations.

```
import "nsIFileUtilities.idl";
```

Inheritance diagram for nsIFileUtilities:





## 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.*

### 4.565.1 Detailed Description

The **nsFileUtilities** (p. 362) interface provides access to random file operations.

To obtain: QueryInterface on **nsIPluginManager** (p. 399).

Definition at line 50 of file nsFileUtilities.idl.

### 4.565.2 Member Function Documentation

#### 4.565.2.1 getProgramPath()

```
void nsFileUtilities::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

#### 4.565.2.2 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

#### 4.565.2.3 newTempFileName()

```
void nsIFileUtilities::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:

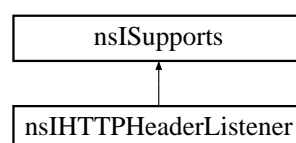
- src/plugin\_win32/include/nsIFileUtilities.idl

## 4.566 nsIHTTPHeaderListener Interface Reference

The **nsIHTTPHeaderListener** (p. 364) interface allows plugin authors to access HTTP Response headers after issuing an **nsIPluginHost** (p. 371)::{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.*

### 4.566.1 Detailed Description

The **nsIHTTPHeaderListener** (p. 364) interface allows plugin authors to access HTTP Response headers after issuing an **nsIPluginHost** (p. 371)::{GetURL,PostURL}() call.

IMPORTANT NOTE: The plugin author must provide an instance to {GetURL,PostURL}() that implements both **nsIPluginStreamListener** (p. 412) and **nsIHTTPHeaderListener** (p. 364). 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. 364).

Definition at line 55 of file nsIHTTPHeaderListener.idl.

### 4.566.2 Member Function Documentation

#### 4.566.2.1 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.

#### 4.566.2.2 statusLine()

```
void nsIHTTPHeaderListener::statusLine (  
    in string line )
```

Called once for the HTTP Response status line.

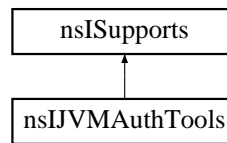
Value does NOT include a terminating newline. NOTE: You must copy this value.

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

- src/plugin\_win32/include/nsIHTTPHeaderListener.idl

## 4.567 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.*

### 4.567.1 Detailed Description

Definition at line 67 of file nsIJVMAuthTools.idl.

### 4.567.2 Member Function Documentation

#### 4.567.2.1 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>nsIAuthenticationInfo</b> (p. 361)	the AuthenticationInfo interface that export

**Returns**

NS\_OK if success, other if fail

**4.567.2.2 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**

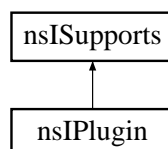
NS\_OK if success, other if fail

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

- src/plugin\_win32/include/nsIJVMAuthTools.idl

**4.568 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.*

### 4.568.1 Detailed Description

Definition at line 51 of file nsIPlugin.idl.

### 4.568.2 Member Function Documentation

#### 4.568.2.1 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.

#### 4.568.2.2 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

**4.568.2.3   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

**4.568.2.4   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. 399), 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

**4.568.2.5   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

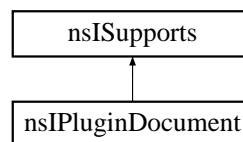
- NS\_OK if this operation was successful

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

- src/plugin\_win32/include/nsIPlugin.idl

## 4.569 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.*

#### 4.569.1 Detailed Description

Definition at line 42 of file nsIPluginDocument.idl.

#### 4.569.2 Field Documentation



## 4.569.2.1 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.

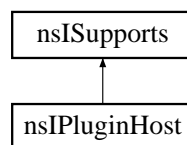
Definition at line 60 of file nsIPluginDocument.idl.

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

- src/plugin\_win32/include/nsIPluginDocument.idl

## 4.570 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**

### 4.570.1 Detailed Description

Definition at line 69 of file nsIPluginHost.idl.

### 4.570.2 Member Function Documentation

#### 4.570.2.1 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.

#### 4.570.2.2 `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.

#### 4.570.2.3 `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

#### 4.570.2.4 `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

## 4.570.2.5 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.

## 4.570.2.6 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.

## 4.570.2.7 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

## 4.570.2.8 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

## 4.570.2.9 reloadPlugins()

```
void nsIPluginHost::reloadPlugins (
    in boolean reloadPages )
```

Causes the plugins directory to be searched again for new plugin libraries.

## Parameters

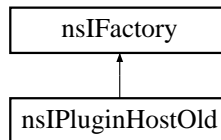
<i>reloadPages</i>	- indicates whether currently visible pages should also be reloaded
--------------------	---

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

- src/plugin\_win32/include/nsIPluginHost.idl

## 4.571 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**

### 4.571.1 Detailed Description

Definition at line 64 of file nsIPluginHostOld.idl.

### 4.571.2 Member Function Documentation

#### 4.571.2.1 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:

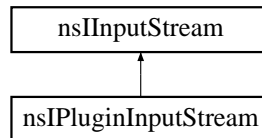
- src/plugin\_win32/include/nsIPluginHostOld.idl

## 4.572 nsIPluginInputStream Interface Reference

The **nsIPluginInputStream** (p. 378) 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)

### 4.572.1 Detailed Description

The **nsIPluginInputStream** (p. 378) interface ...

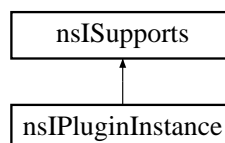
Definition at line 45 of file nsIPluginInputStream.idl.

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

- src/plugin\_win32/include/nsIPluginInputStream.idl

## 4.573 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**

### 4.573.1 Detailed Description

Definition at line 57 of file nsIPluginInstance.idl.

## 4.573.2 Member Function Documentation

### 4.573.2.1 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

### 4.573.2.2 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

### 4.573.2.3 handleEvent()

```
void nsIPluginInstance::handleEvent (
    in nsPluginEventPtr aEvent,
    out boolean aHandled )
```

Handles an event.

Note that for Unix and Mac the **nsPluginEvent** (p. 427) 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

#### 4.573.2.4 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

#### 4.573.2.5 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

## 4.573.2.6 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. 412).

(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

## 4.573.2.7 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

**4.573.2.8 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

**4.573.2.9 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

**4.573.2.10 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

**4.573.2.11 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

**4.573.3 Field Documentation****4.573.3.1 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

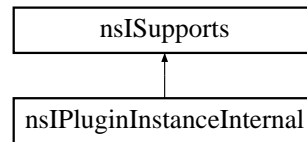
Definition at line 192 of file nsIPluginInstance.idl.

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

- src/plugin\_win32/include/nsIPluginInstance.idl

**4.574 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

### 4.574.1 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

## 4.575 nsIPluginInstanceOld Interface Reference

The **nsIPluginInstance** (p. 378) 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.*

### 4.575.1 Detailed Description

The **nsIPluginInstance** (p. 378) 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.

### 4.575.2 Member Function Documentation



#### 4.575.2.1 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

#### 4.575.2.2 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

#### 4.575.2.3 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. 427) 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

## 4.575.2.4 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

## 4.575.2.5 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. 412).

(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

#### 4.575.2.6 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

#### 4.575.2.7 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

#### 4.575.2.8 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

#### 4.575.2.9 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

### 4.575.3 Field Documentation

#### 4.575.3.1 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

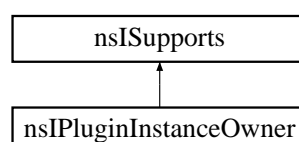
Definition at line 96 of file nsIPluginInstanceOld.idl.

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

- src/plugin\_win32/include/nsIPluginInstanceOld.idl

## 4.576 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.*

### 4.576.1 Detailed Description

Definition at line 48 of file nsIPluginInstanceOwner.idl.

### 4.576.2 Member Function Documentation

#### 4.576.2.1 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.

#### 4.576.2.2 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.

#### 4.576.2.3 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

## 4.577 nsIPluginInstancePeer Interface Reference

The **nsIPluginInstancePeer** (p.392) 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.*

### 4.577.1 Detailed Description

The **nsIPluginInstancePeer** (p. 392) interface is the set of operations implemented by the browser to support a plugin instance.

When a plugin instance is constructed, a **nsIPluginInstancePeer** (p. 392) is passed to its initializer representing the instantiation of the plugin on the page.

Other interfaces may be obtained from **nsIPluginInstancePeer** (p. 392) by calling QueryInterface, e.g. **nsIPluginTagInfo** (p. 416).

Definition at line 68 of file nsIPluginInstancePeer.idl.

### 4.577.2 Member Function Documentation

#### 4.577.2.1 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

**4.577.2.2 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

**4.577.2.3 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



#### 4.577.2.4 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

### 4.577.3 Field Documentation

#### 4.577.3.1 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.

#### 4.577.3.2 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:

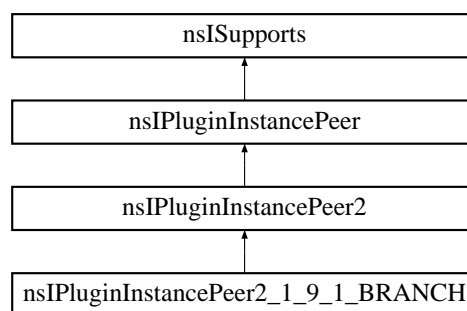
- src/plugin\_win32/include/nsIPluginInstancePeer.idl

## 4.578 nsIPluginInstancePeer2 Interface Reference

The **nsIPluginInstancePeer2** (p. 396) interface extends the **nsIPluginInstancePeer** (p. 392) 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

#### 4.578.1 Detailed Description

The **nsIPluginInstancePeer2** (p. 396) interface extends the **nsIPluginInstancePeer** (p. 392) interface, providing access to functionality provided by newer browsers.

All functionality in **nsIPluginInstancePeer** (p. 392) can be mapped to the 4.X plugin API.

Definition at line 65 of file nsIPluginInstancePeer2.idl.

## 4.578.2 Field Documentation

### 4.578.2.1 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.

### 4.578.2.2 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.

### 4.578.2.3 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

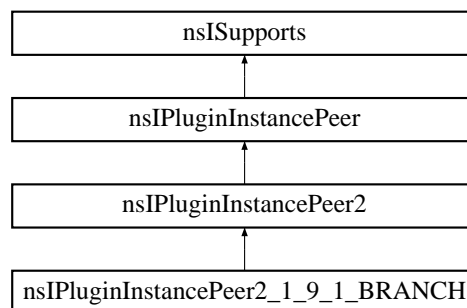
Definition at line 73 of file nsIPluginInstancePeer2.idl.

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

- src/plugin\_win32/include/nsIPluginInstancePeer2.idl

## 4.579 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

#### 4.579.1 Detailed Description

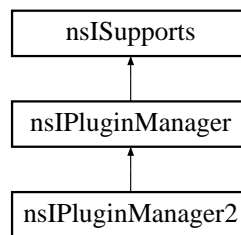
Definition at line 94 of file nsIPluginInstancePeer2.idl.

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

- src/plugin\_win32/include/nsIPluginInstancePeer2.idl

## 4.580 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.*

### 4.580.1 Detailed Description

Definition at line 77 of file nsIPluginManager.idl.

### 4.580.2 Member Function Documentation

## 4.580.2.1 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

## 4.580.2.2 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. 399). 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

## 4.580.2.3 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

## 4.580.2.4 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

## 4.580.2.5 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.

**4.580.2.6 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
--------------------	---

**4.580.2.7 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.

**4.580.2.8 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:

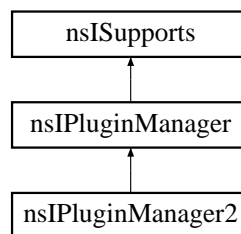
- src/plugin\_win32/include/nsIPluginManager.idl

## 4.581 nsIPluginManager2 Interface Reference

Plugin Manager 2 Interface These extensions to **nsIPluginManager** (p. 399) 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.*

### 4.581.1 Detailed Description

Plugin Manager 2 Interface These extensions to **nsIPluginManager** (p. 399) are only available in Communicator 5.0.

Definition at line 50 of file nsIPluginManager2.idl.

### 4.581.2 Member Function Documentation

#### 4.581.2.1 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

#### 4.581.2.2 beginWaitCursor()

```
void nsIPluginManager2::beginWaitCursor ( )
```

Puts up a wait cursor.

##### Returns

- NS\_OK if this operation was successful

#### 4.581.2.3 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

## 4.581.2.4 endWaitCursor()

```
void nsIPluginManager2::endWaitCursor ( )
```

Restores the previous (non-wait) cursor.

## Returns

- NS\_OK if this operation was successful

## 4.581.2.5 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.

## 4.581.2.6 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

## 4.581.2.7 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

## 4.581.2.8 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

**4.581.2.9 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

**4.581.2.10 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:

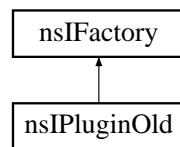
- src/plugin\_win32/include/nsIPluginManager2.idl

## 4.582 nsIPluginOld Interface Reference

The **nsIPlugin** (p. 367) 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.*

### 4.582.1 Detailed Description

The **nsIPlugin** (p. 367) 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.

### 4.582.2 Member Function Documentation

#### 4.582.2.1 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 implementations to be created depending on the specified MIME type.

#### 4.582.2.2 getMIMEDescription()

```
void nsIPluginOld::getMIMEDescription (
    out constCharPtr aMIMEDescription )
```

Returns the MIME description for the plugin.

The MIME description is a colon-separated string containing 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

#### 4.582.2.3 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

**4.582.2.4 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. 399), 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

**4.582.2.5 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:

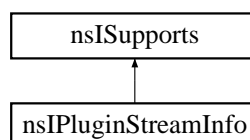
- src/plugin\_win32/include/nsIPluginOld.idl

**4.583 nsIPluginStreamInfo Interface Reference**

**nsIPluginStreamInfo** (p. 411)

```
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**

### 4.583.1 Detailed Description

#### nsIPluginStreamInfo (p. 411)

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:

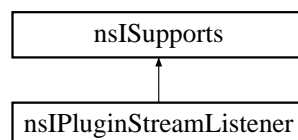
- src/plugin\_win32/include/nsIPluginStreamInfo.idl

## 4.584 nsIPluginStreamListener Interface Reference

#### nsIPluginStreamListener (p. 412)

```
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.*

### 4.584.1 Detailed Description

#### nsIPluginStreamListener (p. 412)

##### 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. 412) 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.

### 4.584.2 Member Function Documentation

#### 4.584.2.1 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.

#### 4.584.2.2 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.

#### 4.584.2.3 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..

#### 4.584.2.4 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.

### 4.584.3 Field Documentation

#### 4.584.3.1 streamType

readonly attribute nsPluginStreamType nsIPluginStreamListener::streamType

Gets the type of the stream.

#### Parameters

<i>aStreamType</i>	- the type of the stream
--------------------	--------------------------

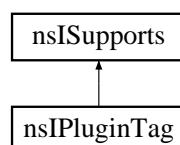
Definition at line 118 of file nsIPluginStreamListener.idl.

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

- src/plugin\_win32/include/nsIPluginStreamListener.idl

## 4.585 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**

### 4.585.1 Detailed Description

Definition at line 42 of file nsIPluginTag.idl.

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

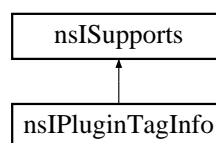
- src/plugin\_win32/include/nsIPluginTag.idl

## 4.586 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. 392) 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.*

### 4.586.1 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.

### 4.586.2 Member Function Documentation

#### 4.586.2.1 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.

#### 4.586.2.2 `getAttributes()`

```
void nsIPluginTagInfo::getAttributes (
    in PRUint16Ref aCount,
    in constCharStarConstStar aNames,
    in constCharStarConstStar aValues )
```

QueryInterface on **nsIPluginInstancePeer** (p. 392) 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.

#### 4.586.2.3 `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

#### 4.586.2.4 `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.

### 4.586.3 Field Documentation

#### 4.586.3.1 `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.

## 4.586.3.2 tagType

```
readonly attribute nsPluginTagType nsIPluginTagInfo::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 93 of file nsIPluginTagInfo.idl.

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

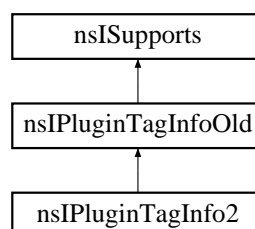
- src/plugin\_win32/include/nsIPluginTagInfo.idl

## 4.587 nsIPluginTagInfo2 Interface Reference

**nsIPluginTagInfo2** (p. 419)

```
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/1.4.2/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.*

### 4.587.1 Detailed Description

**nsIPluginTagInfo2** (p. 419)

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.

### 4.587.2 Member Function Documentation

#### 4.587.2.1 `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

**4.587.2.2   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.

**4.587.3   Field Documentation****4.587.3.1   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.

**4.587.3.2   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:

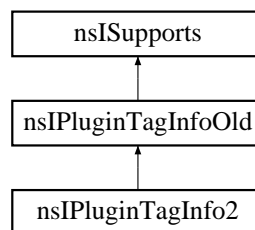
- src/plugin\_win32/include/nsIPluginTagInfo2.idl

## 4.588 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. 392) to get this.*
- void **getAttribute** (in string aName, out constCharPtr aResult)  
*Gets the value for the named attribute.*

### 4.588.1 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.

### 4.588.2 Member Function Documentation

#### 4.588.2.1 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.

4.588.2.2 `getAttributes()`

```
void nsIPluginTagInfoOld::getAttributes (
    in PRUint16Ref aCount,
    in constCharStarConstStar aNames,
    in constCharStarConstStar aValues )
```

QueryInterface on **nsIPluginInstancePeer** (p. 392) 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:

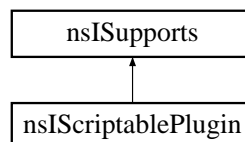
- src/plugin\_win32/include/nsIPluginTagInfoOld.idl

4.589 **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.*

### 4.589.1 Detailed Description

Interface for exposing scriptable plugin methods to JavaScript via XPCConnect.

Definition at line 45 of file nsIScriptablePlugin.idl.

### 4.589.2 Field Documentation

#### 4.589.2.1 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.

#### 4.589.2.2 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.

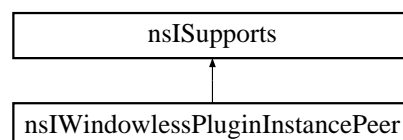
Definition at line 51 of file nsIScriptablePlugin.idl.

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

- src/plugin\_win32/include/nsIScriptablePlugin.idl

## 4.590 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.*

### 4.590.1 Detailed Description

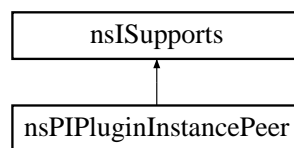
Definition at line 46 of file nsIWindowlessPlugInstPeer.idl.

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

- src/plugin\_win32/include/nsIWindowlessPlugInstPeer.idl

## 4.591 nsPIPluginInstancePeer Interface Reference

Inheritance diagram for nsPIPluginInstancePeer:



## Data Fields

- readonly attribute **nsIPluginInstanceOwner** owner

### 4.591.1 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

## 4.592 nsPluginEmbedPrint Struct Reference

## Data Fields

- **nsPluginWindow** window
- void \* **platformPrint**



### 4.592.1 Detailed Description

Definition at line 313 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.593 nsPluginEvent Struct Reference

### Data Fields

- void \* **event**

### 4.593.1 Detailed Description

Definition at line 327 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.594 nsPluginFullPrint Struct Reference

### Data Fields

- PRBool **pluginPrinted**
- PRBool **printOne**
- void \* **platformPrint**

### 4.594.1 Detailed Description

Definition at line 305 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.595 nsPluginLogging Class Reference

### Static Public Attributes

- static PRLogModuleInfo \* **gNPLog**
- static PRLogModuleInfo \* **gNPPLog**
- static PRLogModuleInfo \* **gPluginLog**

### 4.595.1 Detailed Description

Definition at line 85 of file nsPluginLogging.h.

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

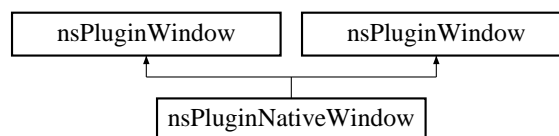
- src/plugin\_win32/include/nsPluginLogging.h

## 4.596 nsPluginNativeWindow Class Reference

base class for native plugin window implementations

```
import "nsIPluginHost.idl";
```

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)
- 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

### 4.596.1 Detailed Description

base class for native plugin window implementations

Definition at line 54 of file nsIPluginHost.idl.

### 4.596.2 Member Function Documentation

#### 4.596.2.1 GetPluginInstance() [1/2]

```
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 nsIPluginHost.idl.

#### 4.596.2.2 GetPluginInstance() [2/2]

```
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 files:

- src/plugin\_win32/include/nsIPluginHost.idl
- src/plugin\_win32/include/nsPluginNativeWindow.h

## 4.597 nsPluginPrint Struct Reference

### Data Fields

- PRUint16 **mode**
- - union {
    - nsPluginFullPrint** fullPrint
    - nsPluginEmbedPrint** embedPrint
  - print**
- - union {
    - nsPluginFullPrint** fullPrint
    - nsPluginEmbedPrint** embedPrint
  - print**

### 4.597.1 Detailed Description

Definition at line 318 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.598 nsPluginRect Struct Reference

### Data Fields

- PRUint16 **top**
- PRUint16 **left**
- PRUint16 **bottom**
- PRUint16 **right**

### 4.598.1 Detailed Description

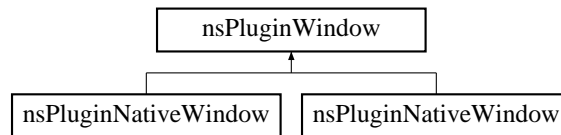
Definition at line 132 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.599 nsPluginWindow Struct Reference

Inheritance diagram for nsPluginWindow:



### Data Fields

- nsPluginPort \* **window**
- PRInt32 **x**
- PRInt32 **y**
- PRUint32 **width**
- PRUint32 **height**
- **nsPluginRect clipRect**
- nsPluginWindowType **type**

### 4.599.1 Detailed Description

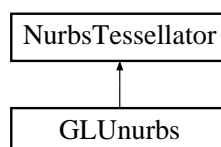
Definition at line 289 of file nsFileUtilities.idl.

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

- src/plugin\_win32/include/nsFileUtilities.idl
- src/plugin\_win32/include/nsplugindefs.h

## 4.600 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 **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

### 4.600.1 Detailed Description

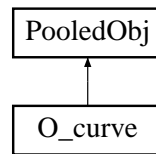
Definition at line 53 of file nurbstess.h.

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

## 4.601 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

#### 4.601.1 Detailed Description

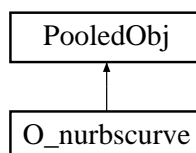
Definition at line 55 of file reader.h.

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

- src/libnurbs/internals/reader.h

## 4.602 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**

### 4.602.1 Detailed Description

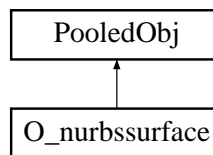
Definition at line 70 of file reader.h.

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

- src/libnurbs/internals/reader.h

## 4.603 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**

### 4.603.1 Detailed Description

Definition at line 101 of file reader.h.

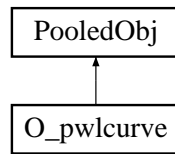
The documentation for this struct was generated from the following file:

- src/libnurbs/internals/reader.h



## 4.604 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**

#### 4.604.1 Detailed Description

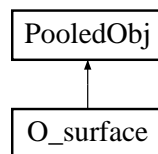
Definition at line 83 of file reader.h.

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

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

## 4.605 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

### 4.605.1 Detailed Description

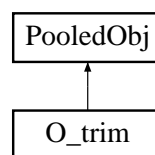
Definition at line 112 of file reader.h.

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

- src/libnurbs/internals/reader.h

## 4.606 O\_trim Struct Reference

Inheritance diagram for O\_trim:



## Data Fields

- **O\_curve** \* **o\_curve**
- **O\_trim** \* **next**
- int **save**

## Additional Inherited Members

### 4.606.1 Detailed Description

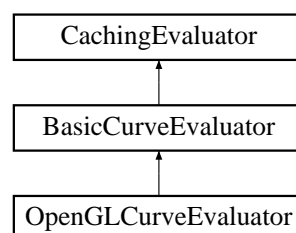
Definition at line 94 of file reader.h.

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

- src/libnurbs/internals/reader.h

## 4.607 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

### 4.607.1 Detailed Description

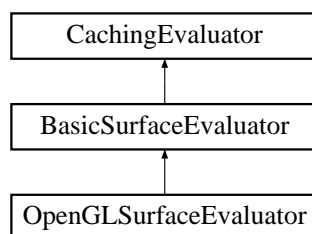
Definition at line 67 of file glcurveval.h.

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

## 4.608 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

### 4.608.1 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`

## 4.609 `opened_file` Struct Reference

### Data Fields

- const char \* **fileFileName**
- int **fileDescriptor**
- int **fileDataSize**
- char \* **fileData**
- int **imageHeight**
- int **imageWidth**
- bool **imageAlpha**
- int **imageChannels**

### 4.609.1 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`

## 4.610 orient\_XYZA Struct Reference

### Data Fields

- GLDOUBLE **x**
- GLDOUBLE **y**
- GLDOUBLE **z**
- GLDOUBLE **a**

### 4.610.1 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

## 4.611 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**

### 4.611.1 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

## 4.612 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**

### 4.612.1 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

## 4.613 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**

### 4.613.1 Detailed Description

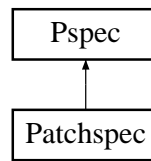
Definition at line 45 of file patchlist.h.

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

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

## 4.614 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**

### 4.614.1 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

## 4.615 pBindable Struct Reference

### Data Fields

- struct **sNavInfo** **naviinfo**
- **bindablestack** **bstack**

### 4.615.1 Detailed Description

Definition at line 91 of file Bindable.c.

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

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



## 4.616 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**

### 4.616.1 Detailed Description

Definition at line 79 of file Collision.c.

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

- src/lib/scenegraph/Collision.c

## 4.617 pcommon Struct Reference

### Data Fields

- 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**

#### 4.617.1 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

### 4.618 pComponent\_CubeMapTexturing Struct Reference

#### Data Fields

- **Stack** \* **gencube\_stack**

#### 4.618.1 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

### 4.619 pComponent\_EnvironSensor Struct Reference

#### Data Fields

- int **candoVisibility**

#### 4.619.1 Detailed Description

- can we do a VisibiltySensor? Only if we have OpenGL support for OcclusionCulling \*/

Definition at line 51 of file Component\_EnvironSensor.c.

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

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

## 4.620 pComponent\_Followers Struct Reference

### Data Fields

- int **something**

### 4.620.1 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

## 4.621 pComponent\_Geometry3D Struct Reference

### Data Fields

- int **junk**
- struct **sCollisionGeometry collisionSphere**
- struct **sCollisionGeometry collisionCylinder**
- struct **sCollisionGeometry collisionCone**

### 4.621.1 Detailed Description

Definition at line 77 of file Component\_Geometry3D.c.

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

- src/lib/scenegraph/Component\_Geometry3D.c

## 4.622 pComponent\_Geospatial Struct Reference

### Data Fields

- int **geoLodLevel**

### 4.622.1 Detailed Description

Definition at line 307 of file Component\_Geospatial.c.

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

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

## 4.623 pComponent\_HAnim Struct Reference

### Data Fields

- struct **X3D\_HAnimHumanoid** \* **HH**
- double **HHMatrix** [16]

### 4.623.1 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

## 4.624 pComponent\_KeyDevice Struct Reference

### Data Fields

- struct **Vector** \* **keySink**

### 4.624.1 Detailed Description

Definition at line 211 of file Component\_KeyDevice.c.

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

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

## 4.625 pComponent\_Layering Struct Reference

### Data Fields

- int **layerId**
- int **saveActive**
- int **binding\_stack\_set**
- struct **X3D\_Node** \* **layersetnode**

### 4.625.1 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

## 4.626 pComponent\_Layout Struct Reference

### Data Fields

- **Stack \* layout\_scale\_stack**

#### 4.626.1 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

## 4.627 pComponent\_NURBS Struct Reference

### Data Fields

- void \* **nada**

#### 4.627.1 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

## 4.628 pComponent\_ParticleSystems Struct Reference

### Data Fields

- int **something**

#### 4.628.1 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

## 4.629 pComponent\_Picking Struct Reference

### Data Fields

- **Stack \* stack\_nodesdistance**
- **Stack \* stack\_intersections**
- **Stack \* stack\_pointsinside**

### 4.629.1 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

## 4.630 pComponent\_ProgrammableShaders Struct Reference

### Data Fields

- **Stack \* effect\_stack**
- int **effectCount**

### 4.630.1 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

## 4.631 pComponent\_Rendering Struct Reference

### Data Fields

- **Stack \* clipplane\_stack**
- float **clipplanes** [4 \*FW\_MAXCLIPPLANES]

### 4.631.1 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

## 4.632 pComponent\_RigidBodyPhysics Struct Reference

### Data Fields

- int **something**

### 4.632.1 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

## 4.633 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**

### 4.633.1 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

## 4.634 pComponent\_Sound Struct Reference

### Data Fields

- int **soundWarned**
- int **SoundSourceNumber**
- void \* **alContext**
- float **AC\_LastDuration** [50]

#### 4.634.1 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

### 4.635 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**

#### 4.635.1 Detailed Description

Definition at line 232 of file Component\_Text.c.

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

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

## 4.636 pComponent\_VolumeRendering Struct Reference

### Data Fields

- GLuint **front\_texture**
- GLuint **back\_texture**
- GLint **ifbobuffer**
- GLint **idepthbuffer**
- int **width**
- int **height**
- GLfloat \* **quad**

#### 4.636.1 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

## 4.637 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**

#### 4.637.1 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

### 4.638 pCParse Struct Reference

#### Data Fields

- int **ijunk**

#### 4.638.1 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

### 4.639 pCParserParser Struct Reference

#### Data Fields

- char **fw\_outline** [2000]
- int **foundInputErrors**
- int **latest\_protoDefNumber**

#### 4.639.1 Detailed Description

Definition at line 65 of file CParserParser.c.

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

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

## 4.640 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**

### 4.640.1 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

## 4.641 pCScripts Struct Reference

### Data Fields

- int **handleCnt**

### 4.641.1 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

## 4.642 pCursorDraw Struct Reference

### Data Fields

- GLuint **textureID**
- int **done**

### 4.642.1 Detailed Description

Definition at line 191 of file CursorDraw.c.

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

- src/lib/ui/CursorDraw.c

## 4.643 pdisplay Struct Reference

### Data Fields

- **freewrl\_params\_t** params
- **s\_renderer\_capabilities\_t** rdr\_caps
- char **myMenuStatus** [MAXSTAT]
- int **multi\_window\_capable**

### 4.643.1 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

## 4.644 pEAI\_C\_CommonFunctions Struct Reference

### Data Fields

- struct **VRMLParser** \* parser

### 4.644.1 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

## 4.645 pEAICore Struct Reference

### Data Fields

- pthread\_mutex\_t **eaibufferlock**

### 4.645.1 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

## 4.646 pEAIEventsIn Struct Reference

### Data Fields

- int **oldCount**
- int **waiting\_for\_anchor**
- struct **X3D\_Anchor** **EAI\_AnchorNode**

### 4.646.1 Detailed Description

Definition at line 129 of file EAIEventsIn.c.

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

- src/lib/input/EAIEventsIn.c

## 4.647 pEAHelpers Struct Reference

### Data Fields

- struct **Vector** \* **EAINodeIndex**

### 4.647.1 Detailed Description

Definition at line 97 of file EAHelpers.c.

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

- src/lib/input/EAHelpers.c

## 4.648 pedal\_state Struct Reference

### Data Fields

- int **x**
- int **y**
- int **rx**
- int **ry**
- int **isDown**
- int **initialized**

### 4.648.1 Detailed Description

Definition at line 2986 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.649 pFrustum Struct Reference

### Data Fields

- GLuint \* **OccQueries**
- GLuint **potentialOccluderCount**
- void \*\* **occluderNodePointer**
- GLuint **OccQuerySize**
- GLuint **OccResultsAvailable**

### 4.649.1 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

## 4.650 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**

### 4.650.1 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

## 4.651 pict\_image Struct Reference

### Data Fields

- unsigned char \* **luminance**
- unsigned char \* **Cr**
- unsigned char \* **Cb**
- unsigned char \* **display**
- int **locked**
- TimeStamp **show\_time**

### 4.651.1 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

## 4.652 pJScript Struct Reference

### Data Fields

- JSRuntime \* **runtime**
- JSClass **globalClass**
- jsval **JSglobal\_return\_value**
- int **ijunk**

### 4.652.1 Detailed Description

Definition at line 95 of file JScript.c.

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

- src/lib/world\_script/JScript.c

## 4.653 pjsUtils Struct Reference

### Data Fields

- int **insetSFStr**
- JSBool **reportWarnings**

### 4.653.1 Detailed Description

Definition at line 83 of file jsUtils.c.

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

- src/lib/world\_script/jsUtils.c

## 4.654 pjsVRMLBrowser Struct Reference

### Data Fields

- int **ijunk**
- jsval **JSCreate\_global\_return\_val**

### 4.654.1 Detailed Description

Definition at line 1324 of file jsVRMLBrowser.c.

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

- src/lib/world\_script/jsVRMLBrowser.c

## 4.655 pjsVRMLClasses Struct Reference

### Data Fields

- struct **ECMAValueStruct** **ECMAValues** [ECMAValueTableSize]
- int **maxECMAVal**

### 4.655.1 Detailed Description

Definition at line 78 of file jsVRMLClasses.c.

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

- src/lib/world\_script/jsVRMLClasses.c



## 4.656 pLoadTextures Struct Reference

### Data Fields

- **s\_list\_t** \* **texture\_request\_list**
- bool **loader\_waiting**
- **s\_list\_t** \* **texture\_list**
- int **TextureParsing**

### 4.656.1 Detailed Description

- is the texture thread up and running yet? \*/

Definition at line 98 of file LoadTextures.c.

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

- src/lib/opencv/LoadTextures.c

## 4.657 pMainloop Struct Reference

### Data Fields

- int **onScreen**
- int **doEvents**
- char \* **PluginFullPath**
- int **num\_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**
- struct **SensStruct** \* **SensorEvents**
- unsigned int **loop\_count**
- unsigned int **once**
- unsigned int **slowloop\_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**

#### 4.657.1 Detailed Description

Definition at line 2993 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.658 Point Struct Reference

#### Data Fields

- double **x**
- double **y**

#### 4.658.1 Detailed Description

Definition at line 3 of file point\_in\_poly.c.

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

- src/SSR/point\_in\_poly.c
- src/SSR/SSRServer.c

## 4.659 point\_XYZ Struct Reference

### Data Fields

- GLDOUBLE **x**
- GLDOUBLE **y**
- GLDOUBLE **z**

### 4.659.1 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

## 4.660 point\_XYZ3 Struct Reference

### Data Fields

- struct **point\_XYZ** **p1**
- struct **point\_XYZ** **p2**
- struct **point\_XYZ** **p3**

### 4.660.1 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

## 4.661 pointer2pointer Struct Reference

### Data Fields

- struct **X3D\_Node** \* **pp**
- struct **X3D\_Node** \* **pn**

### 4.661.1 Detailed Description

Definition at line 3836 of file CParseParser.c.

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

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

## 4.662 polygon Struct Reference

### Data Fields

- int **n**
- double \* **pts**

### 4.662.1 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

## 4.663 polyrep\_combiner\_data Struct Reference

### Data Fields

- float \* **coords**
- int \* **counter**
- int \* **ria**
- int \* **riaindex**

### 4.663.1 Detailed Description

Definition at line 933 of file headers.h.

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

- src/lib/main/headers.h

## 4.664 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**

#### 4.664.1 Detailed Description

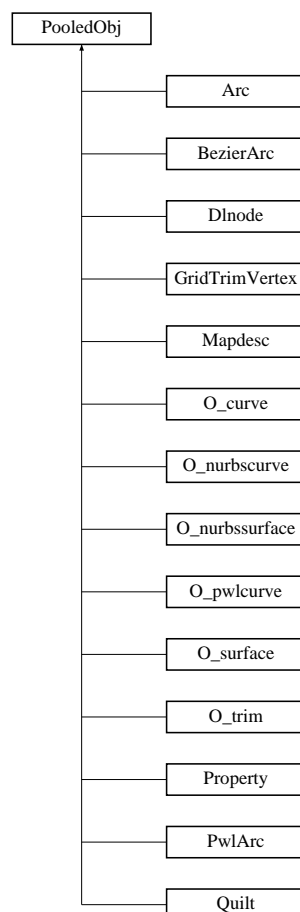
Definition at line 50 of file bufpool.h.

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

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

## 4.665 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** &)

### 4.665.1 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

## 4.666 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**

### 4.666.1 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

## 4.667 pPluginSocket Struct Reference

### Data Fields

- pthread\_mutex\_t **mylocker**
- fd\_set **rfds**
- struct timeval **tv**
- char **return\_url** [FILENAME\_MAX]

### 4.667.1 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

## 4.668 ppluginUtils Struct Reference

### Data Fields

- int **waitingForURLtoLoad**
- resource\_item\_t \* **plugin\_res**

### 4.668.1 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

## 4.669 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**

### 4.669.1 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

## 4.670 PQhandleElem Struct Reference

### Data Fields

- PQkey **key**
- PQhandle **node**

### 4.670.1 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

## 4.671 PQnode Struct Reference

### Data Fields

- PQhandle **handle**

### 4.671.1 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

## 4.672 pRasterFont Struct Reference

### Data Fields

- struct **X3D\_Text** **myText**
- struct **X3D\_FontStyle** **myFont**
- bool **rf\_initialized**
- int **xf\_color**
- vec4f\_t **xf\_colors** [3]



### 4.672.1 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

## 4.673 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**

#### 4.673.1 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

### 4.674 pRenderTextures Struct Reference

#### Data Fields

- struct **multiTexParams textureParameterStack** [MAX\_MULTITEXTURE]

#### 4.674.1 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

### 4.675 presources Struct Reference

#### Data Fields

- struct **Vector \* resStack**
- **resource\_item\_t \* lastBaseResource**

#### 4.675.1 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

## 4.676 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** ()

### 4.676.1 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

## 4.677 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**

### 4.677.1 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

## 4.678 profile\_entry Struct Reference

### Data Fields

- char \* **name**
- double **start**
- double **accum**
- int **hits**

### 4.678.1 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

## 4.679 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** ()

### 4.679.1 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`

## 4.680 proftablestruct Struct Reference

### Data Fields

- `int` **profileName**
- `const int *` **profileTable**
- `int` **level**

### 4.680.1 Detailed Description

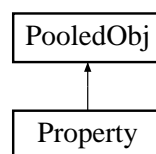
Definition at line 236 of file capabilitiesHandler.c.

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

- `src/lib/x3d_parser/capabilitiesHandler.c`

## 4.681 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**

#### 4.681.1 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

### 4.682 ProtoDefinition Struct Reference

#### Data Fields

- indexT **protoDefNumber**
- struct **Vector** \* **iface**
- struct **Vector** \* **deconstructedProtoBody**
- int **estimatedBodyLen**
- char \* **protoName**
- int **isCopy**
- int **isExtern**

#### 4.682.1 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

### 4.683 ProtoFieldDecl Struct Reference

#### Data Fields

- indexT **mode**
- indexT **type**
- indexT **name**
- char \* **cname**
- char \* **fieldString**
- BOOL **alreadySet**
- union **anyVrml defaultVal**
- struct **Vector** \* **scriptDests**

#### 4.683.1 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

## 4.684 pSensInterps Struct Reference

### Data Fields

- int **stub**

### 4.684.1 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

## 4.685 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**

### 4.685.1 Detailed Description

- snapshot stuff \*/\* need to re-implement this for OSX generating QTVR \*/

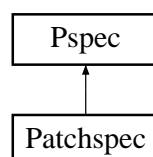
Definition at line 75 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

## 4.686 Pspec Struct Reference

Inheritance diagram for Pspec:



### Data Fields

- REAL **range** [3]
- REAL **sidestep** [2]
- REAL **stepsize**
- REAL **minstepsize**
- int **needsSubdivision**

#### 4.686.1 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

### 4.687 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**

#### 4.687.1 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

### 4.688 pstatusbar Struct Reference

#### Data Fields

- int **initDone**
- int **screenWidth**
- int **screenHeight**
- double **screenRatio**



### 4.688.1 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`

## 4.689 pStreamPoly Struct Reference

### Data Fields

- int **Sindex**
- int **Tindex**
- GLfloat **minVals** [3]
- GLfloat **Ssize**

### 4.689.1 Detailed Description

Definition at line 82 of file `StreamPoly.c`.

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

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

## 4.690 pTess Struct Reference

### Data Fields

- int **global\_IFS\_Coords** [TESS\_MAX\_COORDS]

### 4.690.1 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`

## 4.691 pTextures Struct Reference

### Data Fields

- struct **Vector** \* **activeTextureTable**
- **textureTableIndexStruct\_s** \* **loadThisTexture**
- int **currentlyWorkingOn**
- int **textureInProcess**

### 4.691.1 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

## 4.692 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 **viewpoint2rootnode** [16]
- double **viewpointnew2rootnode** [16]
- int **vp2rnSaved**
- double **old2new** [16]
- double **identity** [16]
- double **tickFrac**
- **Quaternion** sq
- double **sp** [3]
- int **keychord**
- int **dragchord**

### 4.692.1 Detailed Description

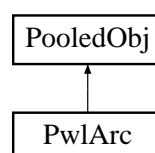
Definition at line 78 of file Viewer.c.

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

- src/lib/scenegraph/Viewer.c

## 4.693 PwIArc Class Reference

Inheritance diagram for PwIArc:



## Public Member Functions

- **PwIArc** (int, **TrimVertex** \*)
- **PwIArc** (int, **TrimVertex** \*, long)

## Data Fields

- **TrimVertex** \* **pts**
- int **npts**
- long **type**

### 4.693.1 Detailed Description

Definition at line 44 of file pwIarc.h.

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

- src/libnurbs/internals/pwIarc.h

## 4.694 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**

### 4.694.1 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

## 4.695 quaternion Struct Reference

### Data Fields

- double **w**
- double **x**
- double **y**
- double **z**

### 4.695.1 Detailed Description

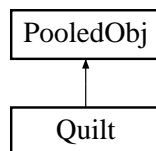
Definition at line 70 of file quaternion.h.

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

- src/lib/scenegraph/quaternion.h

## 4.696 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**

### 4.696.1 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

## 4.697 Quiltspec Struct Reference

## Data Fields

- int **stride**
- int **width**
- int **offset**
- int **order**
- int **index**
- int **bdry** [2]
- REAL **step\_size**
- Knot \* **breakpoints**

### 4.697.1 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

## 4.698 rb1 Struct Reference

## Data Fields

- int **head**
- int **tail**
- int **noOfElements**
- void \* **data**

### 4.698.1 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

## 4.699 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)

### 4.699.1 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

## 4.700 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)

### 4.700.1 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

## 4.701 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** ()

### 4.701.1 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

## 4.702 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**

### 4.702.1 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

## 4.703 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 \*)

### 4.703.1 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

## 4.704 row32 Struct Reference

### Data Fields

- int **allocn**
- int **len32**
- unsigned int \* **str32**
- int **glyphstartindex**
- double **hrowsize**
- double **vcolsize**
- double **widestchar**
- **chardata** \* **chr**



#### 4.704.1 Detailed Description

Definition at line 210 of file Component\_Text.c.

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

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

### 4.705 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**

#### 4.705.1 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

## 4.706 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**

#### 4.706.1 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

### 4.707 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

#### 4.707.1 Detailed Description

Definition at line 32 of file SAIBrowser.h.

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

- src/SAI\_Cpp/SAIBrowser.h

### 4.708 freeWRLSAI\_cpp::saiComponent Class Reference

#### Public Member Functions

- virtual const char \* **getComponentName** ()=0

#### 4.708.1 Detailed Description

Definition at line 47 of file SAIGlobals.h.

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

- src/SAI\_Cpp/SAIGlobals.h

### 4.709 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

### 4.709.1 Detailed Description

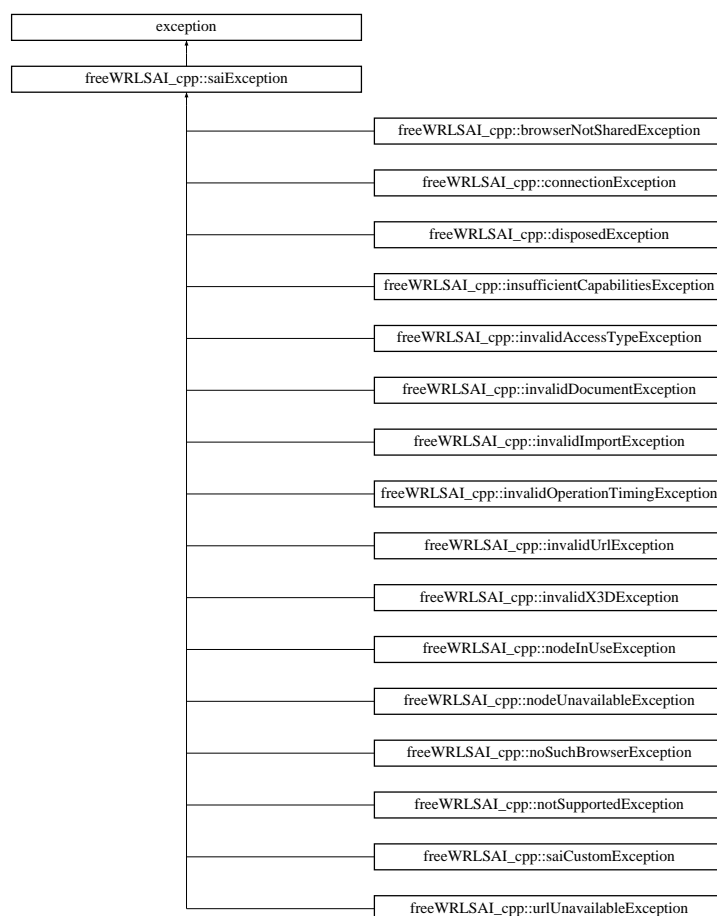
Definition at line 310 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.710 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**

### 4.710.1 Detailed Description

Definition at line 56 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.711 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

### 4.711.1 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

## 4.712 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

### 4.712.1 Detailed Description

Definition at line 35 of file SAIField.h.

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

- src/SAI\_Cpp/SAIField.h

## 4.713 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

### 4.713.1 Detailed Description

Definition at line 31 of file SAINode.h.

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

- src/SAI\_Cpp/SAINode.h

## 4.714 freeWRLSAI\_cpp::saiProfileDeclaration Class Reference

## Public Member Functions

- virtual const char \* **getProfileName** ()=0
- virtual std::map< std::string, **saiComponent** \* > **getComponentDeclaration** ()=0

#### 4.714.1 Detailed Description

Definition at line 55 of file SAIGlobals.h.

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

- src/SAI\_Cpp/SAIGlobals.h

### 4.715 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

#### 4.715.1 Detailed Description

Definition at line 32 of file SAIproto.h.

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

- src/SAI\_Cpp/SAIproto.h

### 4.716 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

#### 4.716.1 Detailed Description

Definition at line 32 of file SAIroute.h.

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

- src/SAI\_Cpp/SAIroute.h



## 4.717 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

### 4.717.1 Detailed Description

Definition at line 34 of file SAIScene.h.

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

- src/SAI\_Cpp/SAIScene.h

## 4.718 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**

### 4.718.1 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

## 4.719 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]

### 4.719.1 Detailed Description

Definition at line 63 of file Component\_Geometry3D.c.

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

- src/lib/scenegraph/Component\_Geometry3D.c

## 4.720 sCollisionInfo Struct Reference

### Data Fields

- struct **point\_XYZ** **Offset**
- int **Count**
- double **Maximum2**

### 4.720.1 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

## 4.721 screentextdata Struct Reference

### Data Fields

- int **nalloc**
- int **nrow**
- **row32** \* **rowvec**
- void \* **atlasfont**
- float **size**
- float **faceheight**
- float **emsize**

### 4.721.1 Detailed Description

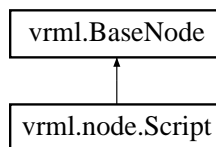
Definition at line 222 of file Component\_Text.c.

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

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

## 4.722 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)

### 4.722.1 Detailed Description

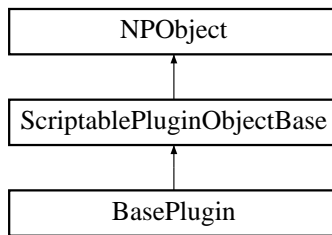
Definition at line 10 of file Script.java.

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

- src/java/vrml/node/Script.java

## 4.723 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

### 4.723.1 Detailed Description

Definition at line 68 of file ScriptablePluginObjectBase.h.

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

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

## 4.724 ScriptFieldDecl Struct Reference

### Data Fields

- struct **FieldDecl** \* **fieldDecl**
- char \* **ASCIIvalue**
- int **valueChanged**
- union **anyVrml** **value**
- BOOL **valueSet**
- int **eventInSet**
- struct **Shader\_Script** \* **script**

### 4.724.1 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

## 4.725 ScriptFieldInstanceInfo Struct Reference

### Data Fields

- struct **ScriptFieldDecl** \* **decl**
- struct **Shader\_Script** \* **script**

### 4.725.1 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

## 4.726 ScriptParamList Struct Reference

### Data Fields

- struct **ScriptParamList** \* **next**
- indexT **kind**
- indexT **type**
- char \* **field**
- union **anyVrml** **value**

### 4.726.1 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

## 4.727 SensStruct Struct Reference

### Data Fields

- struct **X3D\_Node** \* **fromnode**
- struct **X3D\_Node** \* **datanode**
- void(\* **interpptr** )(void \*, int, int, int)

### 4.727.1 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

## 4.728 sFallInfo Struct Reference

### Data Fields

- double **fallHeight**
- 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** **pencorrection**
- double **pendisp**

### 4.728.1 Detailed Description

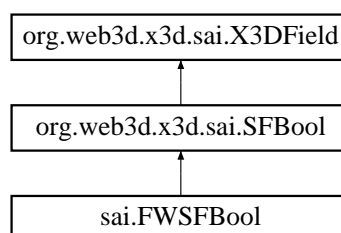
Definition at line 137 of file Collision.h.

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

- src/lib/scenegraph/Collision.h

## 4.729 org.web3d.x3d.sai.SFBool Interface Reference

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



## Public Member Functions

- boolean **getValue** ()
- void **setValue** (boolean value)

### 4.729.1 Detailed Description

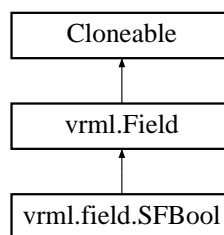
Definition at line 3 of file SFBool.java.

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

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

## 4.730 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

### 4.730.1 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



## 4.731 SFCOLOR Struct Reference

### Data Fields

- float **c** [3]

### 4.731.1 Detailed Description

Definition at line 2461 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

## 4.732 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)

### 4.732.1 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

## 4.733 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

#### 4.733.1 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

## 4.734 SFColorRGBA Struct Reference

### Data Fields

- float **c** [4]
- float **r** [4]

#### 4.734.1 Detailed Description

Definition at line 2463 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

### 4.735 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)

#### 4.735.1 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

### 4.736 org.web3d.x3d.sai.SFDouble Interface Reference

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



## Public Member Functions

- double **getValue** ()
- void **setValue** (double value)

### 4.736.1 Detailed Description

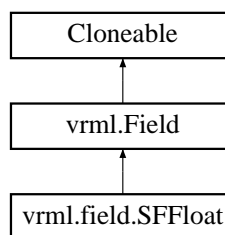
Definition at line 3 of file SFDouble.java.

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

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

## 4.737 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

### 4.737.1 Detailed Description

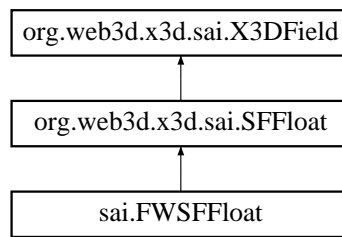
Definition at line 10 of file SFFloat.java.

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

- src/java/vrml/field/SFFloat.java

## 4.738 org.web3d.x3d.sai.SFFloat Interface Reference

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



### Public Member Functions

- float **getValue** ()
- void **setValue** (float value)

#### 4.738.1 Detailed Description

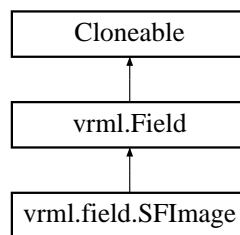
Definition at line 3 of file SFFloat.java.

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

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

## 4.739 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

### 4.739.1 Detailed Description

Definition at line 10 of file SFIImage.java.

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

- src/java/vrml/field/SFIImage.java

## 4.740 org.web3d.x3d.sai.SFIImage Interface Reference

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



## 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)

### 4.740.1 Detailed Description

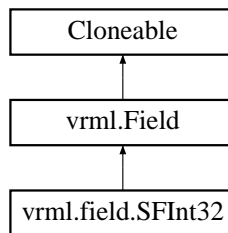
Definition at line 3 of file SFIImage.java.

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

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

## 4.741 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** sfInt32)
- void **setValue** ( **SFInt32** sfInt32)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

### Additional Inherited Members

#### 4.741.1 Detailed Description

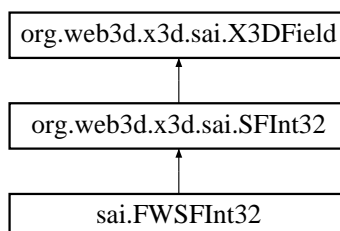
Definition at line 10 of file SFInt32.java.

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

- `src/java/vrml/field/SFInt32.java`

## 4.742 org.web3d.x3d.sai.SFInt32 Interface Reference

Inheritance diagram for org.web3d.x3d.sai.SFInt32:



## Public Member Functions

- int **getValue** ()
- void **setValue** (int value)

### 4.742.1 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

## 4.743 SFMatrix3d Struct Reference

### Data Fields

- double **c** [9]

### 4.743.1 Detailed Description

Definition at line 2479 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

## 4.744 SFMatrix3f Struct Reference

### Data Fields

- float **c** [9]

### 4.744.1 Detailed Description

Definition at line 2477 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



## 4.745 SFMatrix4d Struct Reference

### Data Fields

- double **c** [16]

### 4.745.1 Detailed Description

Definition at line 2483 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

## 4.746 SFMatrix4f Struct Reference

### Data Fields

- float **c** [16]

### 4.746.1 Detailed Description

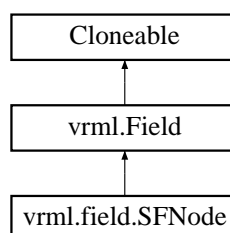
Definition at line 2481 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.747 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

### 4.747.1 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

## 4.748 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

### 4.748.1 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

## 4.749 SFRotation Struct Reference

### Data Fields

- float **c** [4]
- float **r** [4]

### 4.749.1 Detailed Description

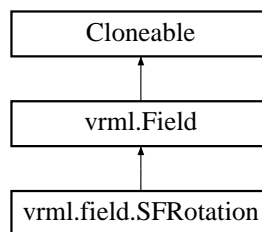
Definition at line 2451 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.750 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

### 4.750.1 Detailed Description

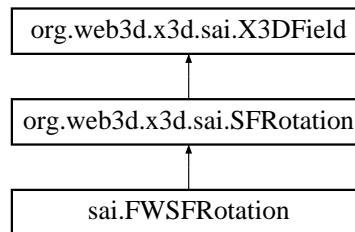
Definition at line 10 of file SFRotation.java.

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

- src/java/vrml/field/SFRotation.java

## 4.751 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)

#### 4.751.1 Detailed Description

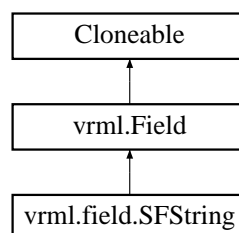
Definition at line 3 of file SFRotation.java.

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

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

## 4.752 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

### 4.752.1 Detailed Description

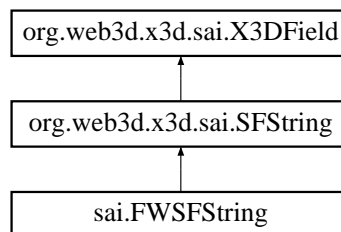
Definition at line 10 of file SFString.java.

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

- src/java/vrml/field/SFString.java

## 4.753 org.web3d.x3d.sai.SFString Interface Reference

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



## Public Member Functions

- String **getValue** ()
- void **setValue** (String value)

### 4.753.1 Detailed Description

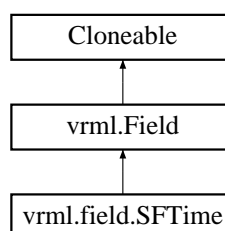
Definition at line 3 of file SFString.java.

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

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

## 4.754 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

### 4.754.1 Detailed Description

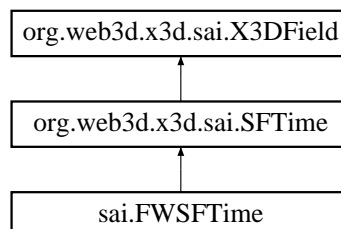
Definition at line 10 of file SFTime.java.

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

- src/java/vrml/field/SFTime.java

## 4.755 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)

### 4.755.1 Detailed Description

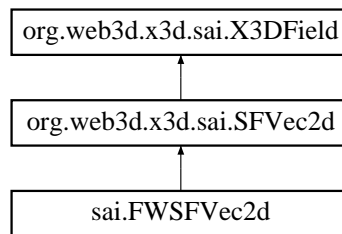
Definition at line 3 of file SFTime.java.

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

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

## 4.756 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)

#### 4.756.1 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

## 4.757 SFVec2d Struct Reference

### Data Fields

- double **c** [2]

#### 4.757.1 Detailed Description

Definition at line 2485 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

## 4.758 SFVec2f Struct Reference

### Data Fields

- float **c** [2]

### 4.758.1 Detailed Description

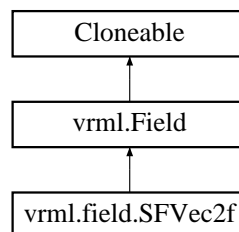
Definition at line 2469 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.759 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

### 4.759.1 Detailed Description

Definition at line 10 of file SFVec2f.java.

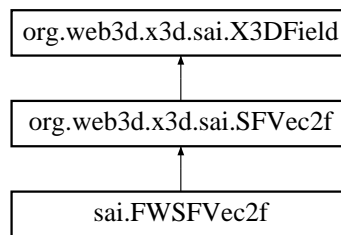
The documentation for this class was generated from the following file:

- src/java/vrml/field/SFVec2f.java



## 4.760 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)

#### 4.760.1 Detailed Description

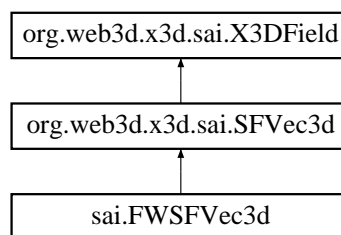
Definition at line 3 of file SFVec2f.java.

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

- src/java/org/web3d/x3d/sai/SFVec2f.java

## 4.761 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)

#### 4.761.1 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

## 4.762 SFVec3d Struct Reference

### Data Fields

- double **c** [3]

### 4.762.1 Detailed Description

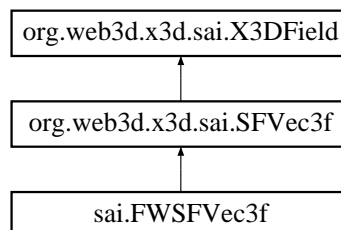
Definition at line 2473 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.763 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)

### 4.763.1 Detailed Description

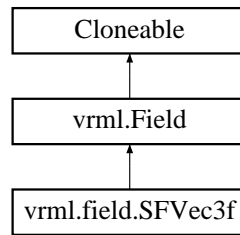
Definition at line 3 of file SFVec3f.java.

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

- src/java/org/web3d/x3d/sai/SFVec3f.java

## 4.764 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

#### 4.764.1 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

## 4.765 SFVec3f Struct Reference

### Data Fields

- float **c** [3]

#### 4.765.1 Detailed Description

Definition at line 2453 of file Structs.h.

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

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

### 4.766 SFVec4d Struct Reference

#### Data Fields

- double **c** [4]

#### 4.766.1 Detailed Description

Definition at line 2489 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

### 4.767 SFVec4f Struct Reference

#### Data Fields

- float **c** [4]

#### 4.767.1 Detailed Description

Definition at line 2487 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

### 4.768 Shader\_Script Struct Reference

#### Data Fields

- struct **X3D\_Node** \* **ShaderScriptNode**
- int **num**
- BOOL **loaded**
- struct **Vector** \* **fields**

### 4.768.1 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

## 4.769 shaderflagsstruct Struct Reference

### Data Fields

- int **base**
- int **effects**
- int **usershaders**
- int **volume**

### 4.769.1 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

## 4.770 shaderTableEntry Struct Reference

### Data Fields

- **shaderflagsstruct whichOne**
- **s\_shader\_capabilities\_t \* myCapabilities**

### 4.770.1 Detailed Description

Definition at line 88 of file OpenGL\_Utils.c.

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

- src/lib/opengl/OpenGL\_Utils.c

## 4.771 slice Struct Reference

### Data Fields

- unsigned int **vert\_pos**
- unsigned int **quant\_scale**
- char \* **extra\_info**

### 4.771.1 Detailed Description

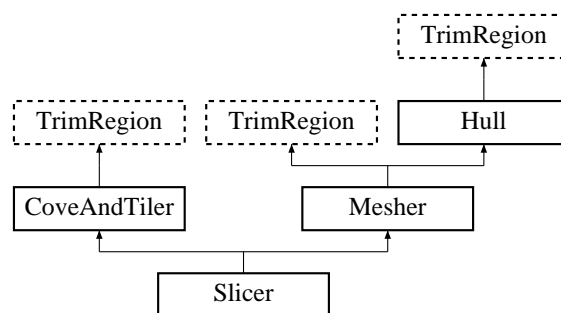
Definition at line 150 of file mpeg\_berkley.h.

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

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

## 4.772 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 **evalRbArray** ( **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

### 4.772.1 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

## 4.773 sNavilInfo Struct Reference

### Data Fields

- double **width**
- double **height**
- double **step**

### 4.773.1 Detailed Description

Definition at line 96 of file Structs.h.

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

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

## 4.774 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

### 4.774.1 Detailed Description

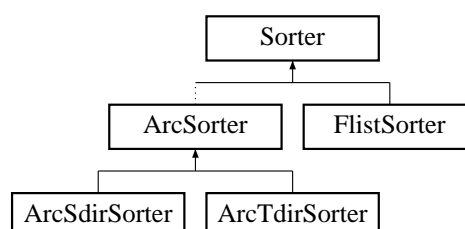
Definition at line 75 of file soundheader.h.

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

- src/sound/soundheader.h

## 4.775 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)

### 4.775.1 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

## 4.776 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**

### 4.776.1 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



## 4.777 **ssr Struct Reference**

### Data Fields

- char \* **name**
- char \* **ip**
- char \* **port**
- void \* **next**
- double **extent** [6]
- int **levels\_available**

### 4.777.1 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

## 4.778 **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**

### 4.778.1 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

## 4.779 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**

### 4.779.1 Detailed Description

Definition at line 2128 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

## 4.780 StoredVertex Class Reference

### Public Member Functions

- void **saveEvalCoord** (REAL x, REAL y)
- void **saveEvalPoint** (long x, long y)
- void **invoke** ( **OpenGLSurfaceEvaluator** \*eval)

### 4.780.1 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

## 4.781 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)

### 4.781.1 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

## 4.782 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]

#### 4.782.1 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

### 4.783 sweepRange Struct Reference

#### Data Fields

- **directedLine \* left**
- Int **leftType**
- **directedLine \* right**
- Int **rightType**

#### 4.783.1 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

### 4.784 targetwindow Struct Reference

#### Data Fields

- **contenttype \* stage**
- void \* **hwnd**
- BOOL **swapbuf**
- **ivec4 ivport**
- **freewrl\_params\_t params**
- struct **targetwindow \* next**

#### 4.784.1 Detailed Description

Definition at line 2961 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.785 iiglobal::tBindable Struct Reference

#### Data Fields

- void \* **naviinfo**
- int **activeLayer**
- void \* **bstacks**
- void \* **prv**

#### 4.785.1 Detailed Description

Definition at line 407 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.786 iiglobal::tcollision Struct Reference

#### Data Fields

- void \* **prv**

#### 4.786.1 Detailed Description

Definition at line 240 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.787 iiglobal::tcommon Struct Reference

#### Data Fields

- void \* **prv**

#### 4.787.1 Detailed Description

Definition at line 429 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.788 iiglobal::tComponent\_CubeMapTexturing Struct Reference

#### Data Fields

- void \* **prv**

#### 4.788.1 Detailed Description

Definition at line 243 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.789 iiglobal::tComponent\_EnvironSensor Struct Reference

#### Data Fields

- void \* **prv**

#### 4.789.1 Detailed Description

Definition at line 246 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.790 iiglobal::tComponent\_Followers Struct Reference

#### Data Fields

- void \* **prv**

#### 4.790.1 Detailed Description

Definition at line 276 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.791 iiglobal::tComponent\_Geometry3D Struct Reference

#### Data Fields

- void \* **prv**

#### 4.791.1 Detailed Description

Definition at line 249 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.792 iiglobal::tComponent\_Geospatial Struct Reference

#### Data Fields

- void \* **prv**

#### 4.792.1 Detailed Description

Definition at line 252 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.793 iiglobal::tComponent\_HAnim Struct Reference

#### Data Fields

- void \* **prv**

#### 4.793.1 Detailed Description

Definition at line 255 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.794 iiglobal::tComponent\_KeyDevice Struct Reference

#### Data Fields

- void \* **prv**

#### 4.794.1 Detailed Description

Definition at line 279 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.795 iiglobal::tComponent\_Layering Struct Reference

#### Data Fields

- void \* **prv**

#### 4.795.1 Detailed Description

Definition at line 258 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.796 iiglobal::tComponent\_Layout Struct Reference

#### Data Fields

- void \* **prv**



#### 4.796.1 Detailed Description

Definition at line 261 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.797 iiglobal::tComponent\_NURBS Struct Reference

#### Data Fields

- void \* **prv**

#### 4.797.1 Detailed Description

Definition at line 264 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.798 iiglobal::tComponent\_ParticleSystems Struct Reference

#### Data Fields

- void \* **prv**

#### 4.798.1 Detailed Description

Definition at line 267 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.799 iiglobal::tComponent\_Picking Struct Reference

#### Data Fields

- void \* **prv**

#### 4.799.1 Detailed Description

Definition at line 293 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.800 iiglobal::tComponent\_ProgrammableShaders Struct Reference

#### Data Fields

- void \* **prv**

#### 4.800.1 Detailed Description

Definition at line 270 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.801 iiglobal::tComponent\_Rendering Struct Reference

#### Data Fields

- void \* **prv**

#### 4.801.1 Detailed Description

Definition at line 296 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.802 iiglobal::tComponent\_RigidBodyPhysics Struct Reference

#### Data Fields

- void \* **prv**

#### 4.802.1 Detailed Description

Definition at line 273 of file `iglobal.h`.

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

- `src/lib/iglobal.h`

### 4.803 **iiglobal::tComponent\_Shape Struct Reference**

#### Data Fields

- `void * prv`

#### 4.803.1 Detailed Description

Definition at line 299 of file `iglobal.h`.

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

- `src/lib/iglobal.h`

### 4.804 **iiglobal::tComponent\_Sound Struct Reference**

#### Data Fields

- `int sound_from_audioclip`
- `int SoundEngineStarted`
- `void * prv`

#### 4.804.1 Detailed Description

Definition at line 302 of file `iglobal.h`.

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

- `src/lib/iglobal.h`

### 4.805 **iiglobal::tComponent\_Text Struct Reference**

#### Data Fields

- `void * prv`

#### 4.805.1 Detailed Description

Definition at line 308 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.806 iiiglobal::tComponent\_VolumeRendering Struct Reference

#### Data Fields

- void \* **prv**

#### 4.806.1 Detailed Description

Definition at line 314 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.807 iiiglobal::tComponent\_VRML1 Struct Reference

#### Data Fields

- void \* **prv**

#### 4.807.1 Detailed Description

Definition at line 311 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.808 iiiglobal::tConsoleMessage Struct Reference

#### Data Fields

- int **consMsgCount**
- int **Console\_writeToHud**
- void \* **prv**

#### 4.808.1 Detailed Description

Definition at line 127 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.809 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)

#### 4.809.1 Detailed Description

Definition at line 446 of file MainLoop.c.

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

- src/lib/main/MainLoop.c

### 4.810 iiglobal::tCParse Struct Reference

#### Data Fields

- void \* **globalParser**
- void \* **prv**

#### 4.810.1 Detailed Description

Definition at line 369 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.811 iiglobal::tCParser Struct Reference

### Data Fields

- void \* **prv**

### 4.811.1 Detailed Description

Definition at line 373 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.812 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**

### 4.812.1 Detailed Description

Definition at line 376 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.813 iiglobal::tCScripts Struct Reference

### Data Fields

- void \* **prv**

### 4.813.1 Detailed Description

Definition at line 388 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.814 iiglobal::tCursorDraw Struct Reference

### Data Fields

- void \* **prv**

### 4.814.1 Detailed Description

Definition at line 432 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.815 iiglobal::tdisplay Struct Reference

### Data Fields

- void \* **params**
- int **\_global\_gl\_err**
- bool **display\_initialized**
- int **screenWidth**
- int **screenHeight**
- char \* **window\_title**
- int **shutterGlasses**
- void \* **rdr\_caps**
- void \* **prv**

### 4.815.1 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

## 4.816 iiglobal::tEAI\_C\_CommonFunctions Struct Reference

### Data Fields

- int **eaiverbose**
- void \* **prv**

#### 4.816.1 Detailed Description

Definition at line 104 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.817 iiglobal::tEAlCore Struct Reference

#### Data Fields

- char \* **EAlbuffer**
- int **EAlbufcount**
- int **EAlbufpos**
- int **EAlbufsize**
- void \* **prv**

#### 4.817.1 Detailed Description

Definition at line 116 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.818 iiglobal::tEAEventsIn Struct Reference

#### Data Fields

- void \* **prv**

#### 4.818.1 Detailed Description

Definition at line 108 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.819 iiglobal::tEAHelpers Struct Reference

#### Data Fields

- char \* **outBuffer**
- int **outBufferLen**
- void \* **prv**



#### 4.819.1 Detailed Description

Definition at line 111 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.820 **text\_combiner\_data** Struct Reference

#### Data Fields

- float \* **coords**
- int \* **counter**
- int \* **ria**
- int \* **riaindex**

#### 4.820.1 Detailed Description

Definition at line 926 of file headers.h.

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

- src/lib/main/headers.h

### 4.821 **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**

#### 4.821.1 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

### 4.822 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**

#### 4.822.1 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

### 4.823 iiglobal::tFrustum Struct Reference

#### Data Fields

- int **OccFailed**
- void \* **prv**

#### 4.823.1 Detailed Description

Definition at line 189 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.824 iiglobal::tinternalc Struct Reference

### Data Fields

- bool **global\_strictParsing**
- bool **global\_plugin\_print**
- bool **global\_occlusion\_disable**
- unsigned **user\_request\_texture\_size**
- bool **global\_print\_opengl\_errors**
- bool **global\_trace\_threads**
- void \* **prv**

### 4.824.1 Detailed Description

Definition at line 54 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.825 iiglobal::tJScript Struct Reference

### Data Fields

- void \* **JSglobal\_return\_val**
- void \* **prv**

### 4.825.1 Detailed Description

Definition at line 391 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.826 iiglobal::tjsUtils Struct Reference

### Data Fields

- void \* **prv**

#### 4.826.1 Detailed Description

Definition at line 395 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.827 iiiglobal::tjsVRMLBrowser Struct Reference

#### Data Fields

- void \* **JSCreate\_global\_return\_val**
- void \* **prv**

#### 4.827.1 Detailed Description

Definition at line 398 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.828 iiiglobal::tjsVRMLClasses Struct Reference

#### Data Fields

- void \* **prv**

#### 4.828.1 Detailed Description

Definition at line 404 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.829 iiiglobal::tLoadTextures Struct Reference

#### Data Fields

- void \* **prv**

#### 4.829.1 Detailed Description

Definition at line 193 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.830 **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`

#### 4.830.1 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

### 4.831 **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`

#### 4.831.1 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

## 4.832 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**

### 4.832.1 Detailed Description

Definition at line 132 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.833 iiglobal::tOpenGL\_Utils Struct Reference

### Data Fields

- int **displayDepth**
- int **cc\_changed**
- void \* **prv**

### 4.833.1 Detailed Description

Definition at line 198 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.834 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**

### 4.834.1 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

## 4.835 iiglobal::tPluginSocket Struct Reference

### Data Fields

- void \* **prv**

### 4.835.1 Detailed Description

Definition at line 234 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.836 iiglobal::tpluginUtils Struct Reference

### Data Fields

- void \* **prv**

### 4.836.1 Detailed Description

Definition at line 237 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.837 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**



### 4.837.1 Detailed Description

Definition at line 165 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.838 treeNode Struct Reference

### Data Fields

- void \* **key**
- struct **treeNode** \* **parent**
- struct **treeNode** \* **left**
- struct **treeNode** \* **right**

### 4.838.1 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

## 4.839 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]
- 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**

### 4.839.1 Detailed Description

Definition at line 317 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.840 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**

### 4.840.1 Detailed Description

Definition at line 761 of file headers.h.

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

- src/lib/main/headers.h

## 4.841 iiglobal::tRenderTextures Struct Reference

### Data Fields

- void \* **textureParameterStack**
- void \* **prv**

### 4.841.1 Detailed Description

Definition at line 219 of file iglobal.h.

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

- src/lib/iglobal.h

## 4.842 iiglobal::tresources Struct Reference

### Data Fields

- void \* **root\_res**
- void \* **prv**

### 4.842.1 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

## 4.843 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)

### 4.843.1 Detailed Description

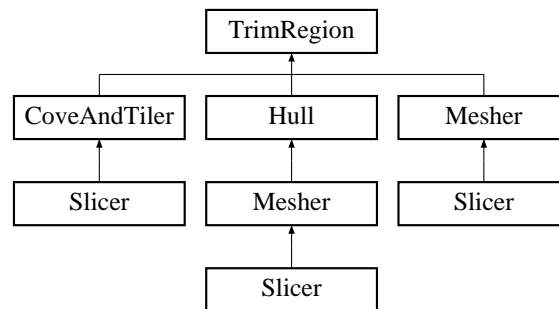
Definition at line 46 of file trimline.h.

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

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

## 4.844 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

### 4.844.1 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

## 4.845 TrimVertex Class Reference

### Data Fields

- REAL **param** [2]
- long **nuid**

#### 4.845.1 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

### 4.846 TrimVertexPool Class Reference

#### Public Member Functions

- void **clear** (void)
- **TrimVertex** \* **get** (int)

#### 4.846.1 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

### 4.847 iiglobal::tSensInterps Struct Reference

#### Data Fields

- void \* **prv**

#### 4.847.1 Detailed Description

Definition at line 124 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.848 iiglobal::tSnapshot Struct Reference

#### Data Fields

- bool **doSnapshot**
- bool **doPrintshot**
- int **snapGoodCount**
- void \* **prv**

#### 4.848.1 Detailed Description

Definition at line 98 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.849 iiglobal::tstatusbar Struct Reference

#### Data Fields

- void \* **prv**

#### 4.849.1 Detailed Description

Definition at line 366 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.850 iiglobal::tStreamPoly Struct Reference

#### Data Fields

- void \* **prv**

#### 4.850.1 Detailed Description

Definition at line 352 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.851 iiglobal::tTess Struct Reference

#### Data Fields

- int \* **global\_IFS\_Coords**
- int **global\_IFS\_Coord\_count**
- void \* **global\_tessobj**
- void \* **prv**

### 4.851.1 Detailed Description

Definition at line 355 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.852 iiglobal::tTextures Struct Reference

### Data Fields

- unsigned int \* **global\_tcin**
- int **global\_tcin\_count**
- void \* **global\_tcin\_lastParent**
- unsigned int **defaultBlankTexture**
- void \* **prv**

### 4.852.1 Detailed Description

Definition at line 224 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.853 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**
- bool **ResourceThreadRunning**
- bool **TextureThreadRunning**
- bool **ResourceThreadWaiting**
- bool **TextureThreadWaiting**
- bool **flushing**
- int **MainLoopQuit**
- void \* **prv**

#### 4.853.1 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

### 4.854 iiglobal::tViewer Struct Reference

#### Data Fields

- int **stereotype**
- void \* **prv**

#### 4.854.1 Detailed Description

Definition at line 362 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.855 iiglobal::tX3DParser Struct Reference

#### Data Fields

- int **parentIndex**
- char \* **CDATA\_Text**
- int **CDATA\_Text\_curlen**
- void \* **prv**

#### 4.855.1 Detailed Description

Definition at line 422 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.856 Uarray Class Reference

#### Public Member Functions

- long **init** (REAL, Arc\_ptr, Arc\_ptr)



## Data Fields

- `REAL * uarray`

### 4.856.1 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`

## 4.857 un1 Union Reference

## Data Fields

- `int i`
- `float f`
- `void * p`

### 4.857.1 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`

## 4.858 Uni\_String Struct Reference

## Data Fields

- `int len`
- `char * strptr`
- `int touched`
- `size_t len`

### 4.858.1 Detailed Description

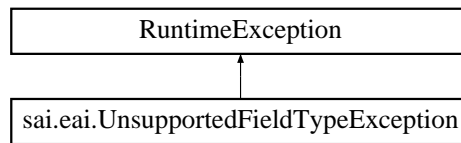
Definition at line 51 of file `Structs.h`.

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

- `src/lib/vrml_parser/Structs.h`
- `src/libeai/EAI_C.h`

## 4.859 sai.eai.UnsupportedFieldTypeException Class Reference

Inheritance diagram for sai.eai.UnsupportedFieldTypeException:



### Public Member Functions

- **UnsupportedFieldTypeException** (String str)

### 4.859.1 Detailed Description

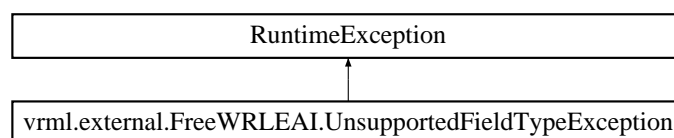
Definition at line 19 of file `UnsupportedFieldTypeException.java`.

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

- `src/java/sai/eai/UnsupportedFieldTypeException.java`

## 4.860 vrml.external.FreeWRLEAI.UnsupportedFieldTypeException Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.UnsupportedFieldTypeException:



### Public Member Functions

- **UnsupportedFieldTypeException** (String str)

### 4.860.1 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`

## 4.861 unz64\_file\_pos\_s Struct Reference

### Data Fields

- ZPOS64\_T **pos\_in\_zip\_directory**
- ZPOS64\_T **num\_of\_file**

### 4.861.1 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

## 4.862 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**

### 4.862.1 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

## 4.863 unz\_file\_info64\_internal\_s Struct Reference

### Data Fields

- ZPOS64\_T **offset\_curfile**

### 4.863.1 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

## 4.864 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**

### 4.864.1 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

## 4.865 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**

### 4.865.1 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

## 4.866 unz\_file\_pos\_s Struct Reference

### Data Fields

- uLong **pos\_in\_zip\_directory**
- uLong **num\_of\_file**

### 4.866.1 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

## 4.867 unz\_global\_info64\_s Struct Reference

### Data Fields

- ZPOS64\_T **number\_entry**
- uLong **size\_comment**

#### 4.867.1 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

### 4.868 unz\_global\_info\_s Struct Reference

#### Data Fields

- uLong **number\_entry**
- uLong **size\_comment**

#### 4.868.1 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

### 4.869 org.web3d.x3d.sai.URLUnavailableException Class Reference

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



#### Public Member Functions

- **URLUnavailableException** (String msg)

#### 4.869.1 Detailed Description

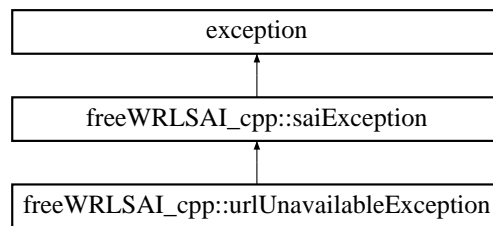
Definition at line 3 of file URLUnavailableException.java.

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

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

## 4.870 freeWRLSAI\_cpp::urlUnavailableException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::urlUnavailableException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.870.1 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

## 4.871 usehit Struct Reference

### Data Fields

- struct **X3D\_Node** \* **node**
- double **mvm** [16]
- void \* **userdata**

#### 4.871.1 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

## 4.872 Varray Class Reference

### Public Member Functions

- long **init** (REAL, **Arc** \*, **Arc** \*)

### Data Fields

- REAL \* **varray**
- REAL **vval** [1000]
- long **voffset** [1000]
- long **numquads**

### 4.872.1 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

## 4.873 vec2 Struct Reference

### Data Fields

- float **X**
- float **Y**

### 4.873.1 Detailed Description

Definition at line 2285 of file Component\_Text.c.

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

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

## 4.874 vec4 Struct Reference

### Data Fields

- float **X**
- float **Y**
- float **Z**
- float **W**



### 4.874.1 Detailed Description

Definition at line 727 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

## 4.875 Vector Struct Reference

### Data Fields

- int **n**
- int **allocn**
- void \* **data**

### 4.875.1 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

## 4.876 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** ()

### 4.876.1 Detailed Description

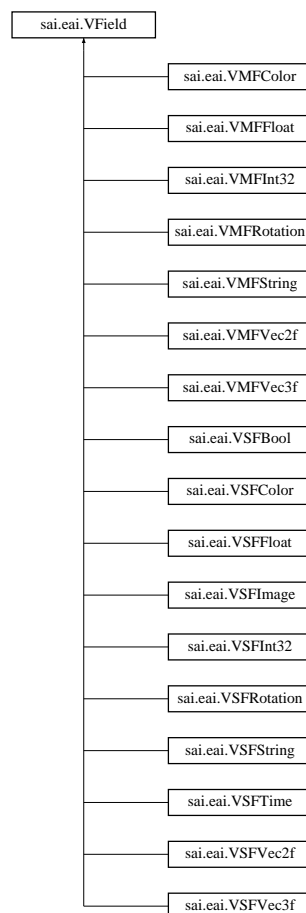
Definition at line 77 of file monoTriangulation.h.

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

- src/libnurbs/nurbtess/monoTriangulation.h
- src/libnurbs/nurbtess/monoTriangulation.cc

## 4.877 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

### 4.877.1 Detailed Description

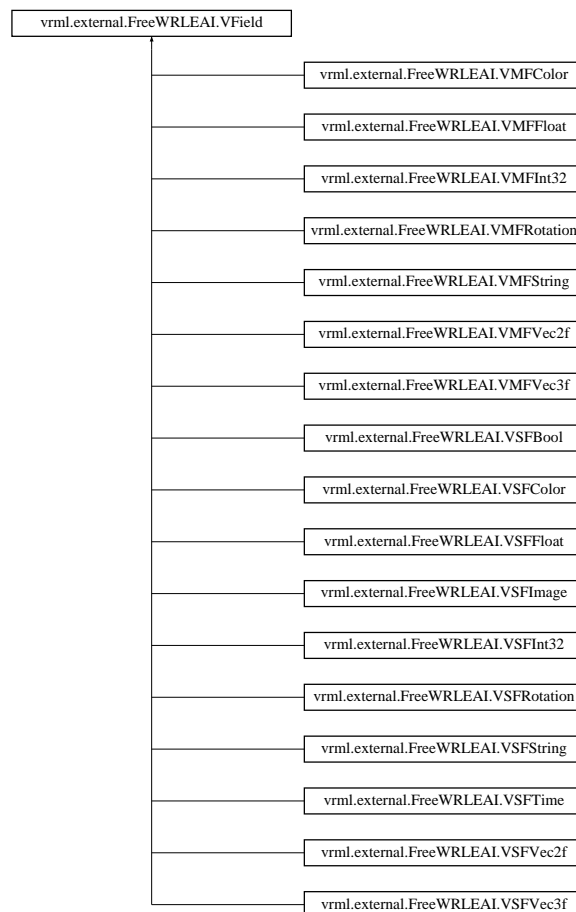
Definition at line 24 of file VField.java.

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

- src/java/sai/eai/VField.java

## 4.878 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

### 4.878.1 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

## 4.879 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**

#### 4.879.1 Detailed Description

Definition at line 191 of file `mpeg_berkley.h`.

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

- `src/lib/scenegraph/mpeg_berkley.h`

### 4.880 viewer Struct Reference

#### Data Fields

- struct **point\_XYZ** **Pos**
- struct **point\_XYZ** **AntiPos**
- struct **point\_XYZ** **currentPosInModel**
- **Quaternion** **Quat**
- **Quaternion** **AntiQuat**
- **Quaternion** **bindTimeQuat**
- 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 **iprog** [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
- struct **point\_XYZ** startSLERPAntiPos
- **Quaternion** startSLERPQuat
- **Quaternion** startSLERPAntiQuat
- **Quaternion** startSLERPbindTimeQuat
- **Quaternion** prepVPQuat
- **Quaternion** startSLERPprepVPQuat
- double **startSLERPDist**
- double **endSLERPDist**
- struct **point\_XYZ** endSLERPPos
- **Quaternion** endSLERPQuat
- struct **X3D\_GeoViewpoint** \* GeoSpatialNode
- int **doExamineModeDistanceCalculations**
- int **ortho**
- double **orthoField** [4]
- int **screenOrientation**
- double **nearPlane**
- double **farPlane**
- double **xcenter**
- double **backgroundPlane**
- GLDOUBLE **fieldofview**
- GLDOUBLE **fovZoom**
- int **wasBound**

#### 4.880.1 Detailed Description

Definition at line 196 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

## 4.881 viewer\_examine Struct Reference

### Data Fields

- struct **point\_XYZ** **Origin**
- **Quaternion** **OQuat**
- **Quaternion** **SQuat**
- double **ODist**
- double **SY**

### 4.881.1 Detailed Description

Definition at line 153 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

## 4.882 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**

### 4.882.1 Detailed Description

Definition at line 187 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

## 4.883 viewer\_inplane Struct Reference

### Data Fields

- double **x**
- double **y**
- double **xx**
- double **yy**
- int **on**
- int **ibut**



#### 4.883.1 Detailed Description

Definition at line 167 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

### 4.884 viewer\_walk Struct Reference

#### Data Fields

- double **SX**
- double **SY**
- double **XD**
- double **YD**
- double **ZD**
- double **RD**

#### 4.884.1 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

### 4.885 viewer\_ypz Struct Reference

#### Data Fields

- double **ypz0** [3]
- double **ypz** [3]
- float **x**
- float **y**

#### 4.885.1 Detailed Description

Definition at line 161 of file Viewer.h.

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

- src/lib/scenegraph/Viewer.h

## 4.886 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

### 4.886.1 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

## 4.887 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

### 4.887.1 Detailed Description

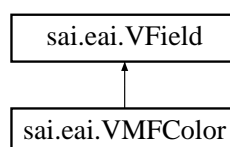
Definition at line 19 of file VIP.java.

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

- src/java/vrml/external/FreeWRLEAI/VIP.java

## 4.888 sai.eai.VMFCOLOR Class Reference

Inheritance diagram for sai.eai.VMFCOLOR:



## Public Member Functions

- **VMFColor** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.888.1 Detailed Description

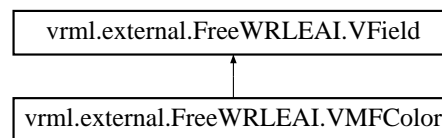
Definition at line 21 of file VMFColor.java.

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

- src/java/sai/eai/VMFColor.java

## 4.889 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

### 4.889.1 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

## 4.890 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

#### 4.890.1 Detailed Description

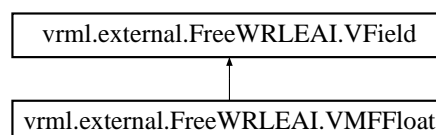
Definition at line 21 of file VMFFloat.java.

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

- src/java/sai/eai/VMFFloat.java

## 4.891 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

### 4.891.1 Detailed Description

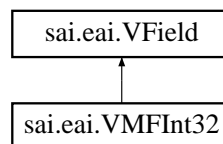
Definition at line 21 of file VMFFloat.java.

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

- `src/java/vrml/external/FreeWRLEAI/VMFFloat.java`

## 4.892 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

### 4.892.1 Detailed Description

Definition at line 21 of file VMFIInt32.java.

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

- `src/java/sai/eai/VMFIInt32.java`

## 4.893 vrml.external.FreeWRLEAI.VMFIInt32 Class Reference

Inheritance diagram for `vrml.external.FreeWRLEAI.VMFIInt32`:



## Public Member Functions

- **VMFInt32** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.893.1 Detailed Description

Definition at line 21 of file VMFInt32.java.

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

- src/java/vrml/external/FreeWRLEAI/VMFInt32.java

## 4.894 sai.eai.VMFRotation Class Reference

Inheritance diagram for sai.eai.VMFRotation:



## Public Member Functions

- **VMFRotation** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.894.1 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

## 4.895 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

#### 4.895.1 Detailed Description

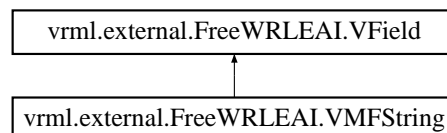
Definition at line 21 of file VMFRotation.java.

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

- src/java/vrml/external/FreeWRLEAI/VMFRotation.java

## 4.896 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

### 4.896.1 Detailed Description

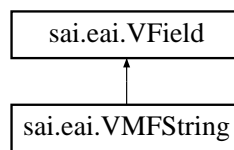
Definition at line 21 of file VMFString.java.

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

- src/java/vrml/external/FreeWRLEAI/VMFString.java

## 4.897 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

### 4.897.1 Detailed Description

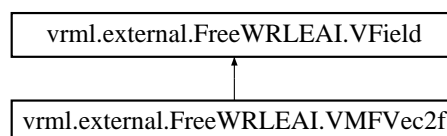
Definition at line 21 of file VMFString.java.

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

- src/java/sai/eai/VMFString.java

## 4.898 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

### 4.898.1 Detailed Description

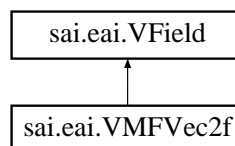
Definition at line 21 of file VMFVec2f.java.

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

- src/java/vrml/external/FreeWRLEAI/VMFVec2f.java

## 4.899 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

### 4.899.1 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

## 4.900 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

#### 4.900.1 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

## 4.901 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

### 4.901.1 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

## 4.902 void3 Struct Reference

### Data Fields

- void \* **one**
- void \* **two**
- void \* **three**

### 4.902.1 Detailed Description

Definition at line 666 of file headers.h.

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

- src/lib/main/headers.h

## 4.903 VRMLLexer Struct Reference

### Data Fields

- char \* **nextIn**
- char \* **startOfStringPtr** [LEXER\_INPUT\_STACK\_MAX]
- char \* **curID**
- 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**

### 4.903.1 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

## 4.904 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**

### 4.904.1 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

## 4.905 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**

### 4.905.1 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

## 4.906 vrml.external.FreeWRLEAI.VRMLObjectObserver Interface Reference

### Public Member Functions

- void **onClicked** ( **VRMLObject** obj)
- void **onLoaded** ( **VRMLObject** obj)

#### 4.906.1 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

### 4.907 sai.eai.VRMLObjectObserver Interface Reference

#### Public Member Functions

- void **onClicked** ( **VRMLObject** obj)
- void **onLoaded** ( **VRMLObject** obj)

#### 4.907.1 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

### 4.908 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**

#### 4.908.1 Detailed Description

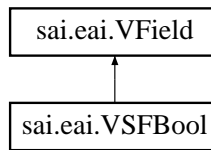
Definition at line 148 of file CParseParser.h.

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

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

## 4.909 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

#### 4.909.1 Detailed Description

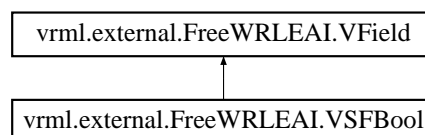
Definition at line 21 of file VSFBool.java.

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

- src/java/sai/eai/VSFBool.java

## 4.910 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

### 4.910.1 Detailed Description

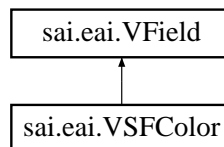
Definition at line 21 of file VSFBool.java.

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

- src/java/vrml/external/FreeWRLEAI/VSFBool.java

## 4.911 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

### 4.911.1 Detailed Description

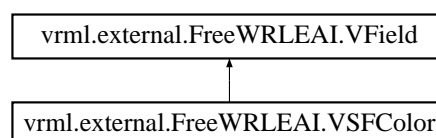
Definition at line 21 of file VSFCOLOR.java.

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

- src/java/sai/eai/VSFCOLOR.java

## 4.912 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

### 4.912.1 Detailed Description

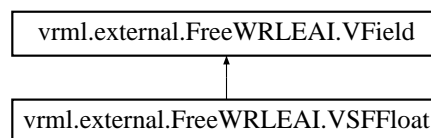
Definition at line 21 of file VSFCOLOR.java.

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

- src/java/vrml/external/FreeWRLEAI/VSFCOLOR.java

## 4.913 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

### 4.913.1 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/VSSFFloat.java

## 4.914 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

#### 4.914.1 Detailed Description

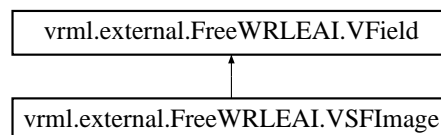
Definition at line 20 of file VSFFloat.java.

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

- src/java/sai/eai/VsFFloat.java

## 4.915 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

### 4.915.1 Detailed Description

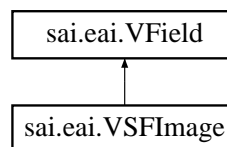
Definition at line 21 of file VSImage.java.

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

- src/java/vrml/external/FreeWRLEAI/VSImage.java

## 4.916 sai.eai.VSImage Class Reference

Inheritance diagram for sai.eai.VSImage:



## Public Member Functions

- **VSImage** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.916.1 Detailed Description

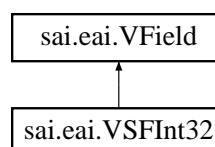
Definition at line 21 of file VSImage.java.

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

- src/java/sai/eai/VSImage.java

## 4.917 sai.eai.VSInt32 Class Reference

Inheritance diagram for sai.eai.VSInt32:



## Public Member Functions

- **VSFloat32** (DataInputStream in) throws IOException
- **VSFloat32** (int v)
- void **write** (DataOutputStream out) throws IOException
- int **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.917.1 Detailed Description

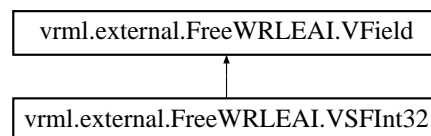
Definition at line 21 of file VSFloat32.java.

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

- src/java/sai/eai/VFloat32.java

## 4.918 vrml.external.FreeWRLEAI.VSFloat32 Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFloat32:



## Public Member Functions

- **VSFloat32** (DataInputStream in) throws IOException
- **VSFloat32** (int v)
- void **write** (DataOutputStream out) throws IOException
- int **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.918.1 Detailed Description

Definition at line 21 of file VSFloat32.java.

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

- src/java/vrml/external/FreeWRLEAI/VFloat32.java

## 4.919 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

#### 4.919.1 Detailed Description

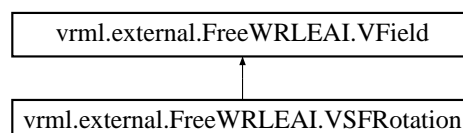
Definition at line 20 of file VSFRotation.java.

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

- src/java/sai/eai/VsFRotation.java

## 4.920 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

### 4.920.1 Detailed Description

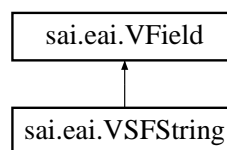
Definition at line 20 of file VSFRotation.java.

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

- src/java/vrml/external/FreeWRLEAI/VSFRotation.java

## 4.921 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

### 4.921.1 Detailed Description

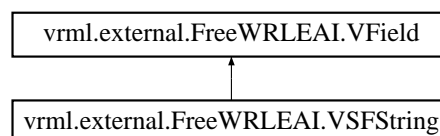
Definition at line 21 of file VSFString.java.

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

- src/java/sai/eai/VSFString.java

## 4.922 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

### 4.922.1 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

## 4.923 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

### 4.923.1 Detailed Description

Definition at line 21 of file VSFTIME.java.

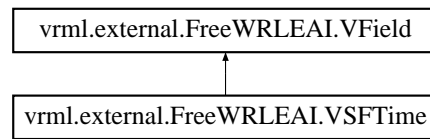
The documentation for this class was generated from the following file:

- src/java/sai/eai/VSFTIME.java



## 4.924 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

#### 4.924.1 Detailed Description

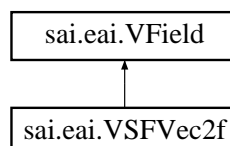
Definition at line 21 of file VSFTIME.java.

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

- src/java/vrml/external/FreeWRLEAI/Vsftime.java

## 4.925 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

### 4.925.1 Detailed Description

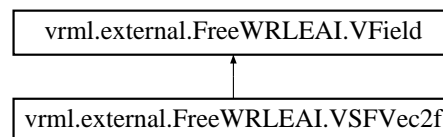
Definition at line 21 of file VSFVec2f.java.

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

- src/java/sai/eai/VSFVec2f.java

## 4.926 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

### 4.926.1 Detailed Description

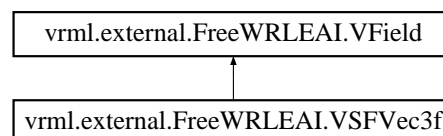
Definition at line 21 of file VSFVec2f.java.

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

- src/java/vrml/external/FreeWRLEAI/VSFVec2f.java

## 4.927 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

### 4.927.1 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

## 4.928 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

### 4.928.1 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`

## 4.929 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`

### 4.929.1 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`

## 4.930 WEB3DNATIVE Struct Reference

### Data Fields

- `int fieldType`
- - `union {`
    - `void * native`
    - `union anyVrml * anyvrml`
  - `};`
- `int * valueChanged`
- `int kind`
- `char gc`

### 4.930.1 Detailed Description

Definition at line 81 of file FWTYPE.h.

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

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

## 4.931 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**

### 4.931.1 Detailed Description

Definition at line 2603 of file Structs.h.

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

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

## 4.932 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**

### 4.932.1 Detailed Description

Definition at line 2632 of file Structs.h.

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

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

## 4.933 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**

### 4.933.1 Detailed Description

Definition at line 2658 of file Structs.h.

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

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

## 4.934 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**
- int **\_\_numPoints**

### 4.934.1 Detailed Description

Definition at line 2682 of file Structs.h.

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

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

## 4.935 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**

### 4.935.1 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



## 4.936 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**

### 4.936.1 Detailed Description

Definition at line 2745 of file Structs.h.

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

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

## 4.937 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**

#### 4.937.1 Detailed Description

Definition at line 2772 of file Structs.h.

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

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

### 4.938 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**

#### 4.938.1 Detailed Description

Definition at line 2818 of file Structs.h.

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

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

## 4.939 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**

### 4.939.1 Detailed Description

Definition at line 2848 of file Structs.h.

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

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

## 4.940 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**

### 4.940.1 Detailed Description

Definition at line 2875 of file Structs.h.

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

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

## 4.941 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**

### 4.941.1 Detailed Description

Definition at line 2907 of file Structs.h.

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

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

## 4.942 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**

#### 4.942.1 Detailed Description

Definition at line 2930 of file Structs.h.

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

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

### 4.943 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**

#### 4.943.1 Detailed Description

Definition at line 2955 of file Structs.h.

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

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

### 4.944 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**

#### 4.944.1 Detailed Description

Definition at line 2976 of file Structs.h.

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

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

### 4.945 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**

#### 4.945.1 Detailed Description

Definition at line 2997 of file Structs.h.

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

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

## 4.946 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**

### 4.946.1 Detailed Description

Definition at line 3020 of file Structs.h.

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

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

## 4.947 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**



### 4.947.1 Detailed Description

Definition at line 3041 of file Structs.h.

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

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

## 4.948 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**

### 4.948.1 Detailed Description

Definition at line 3063 of file Structs.h.

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

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

## 4.949 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**

### 4.949.1 Detailed Description

Definition at line 3090 of file Structs.h.

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

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

## 4.950 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**

### 4.950.1 Detailed Description

Definition at line 3113 of file Structs.h.

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

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

## 4.951 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**

### 4.951.1 Detailed Description

Definition at line 3140 of file Structs.h.

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

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

## 4.952 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**

### 4.952.1 Detailed Description

Definition at line 3178 of file Structs.h.

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

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

## 4.953 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**

#### 4.953.1 Detailed Description

Definition at line 3205 of file Structs.h.

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

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

### 4.954 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**

#### 4.954.1 Detailed Description

Definition at line 3229 of file Structs.h.

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

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

### 4.955 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**

### 4.955.1 Detailed Description

Definition at line 3251 of file Structs.h.

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

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

## 4.956 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**

### 4.956.1 Detailed Description

Definition at line 3272 of file Structs.h.

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

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

## 4.957 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**

### 4.957.1 Detailed Description

Definition at line 3304 of file Structs.h.

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

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

## 4.958 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**

#### 4.958.1 Detailed Description

Definition at line 3336 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.959 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**

#### 4.959.1 Detailed Description

Definition at line 3366 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.960 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**

#### 4.960.1 Detailed Description

Definition at line 3398 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.961 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**

### 4.961.1 Detailed Description

Definition at line 3422 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.962 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**

### 4.962.1 Detailed Description

Definition at line 3447 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.963 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**

### 4.963.1 Detailed Description

Definition at line 3467 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.964 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**

### 4.964.1 Detailed Description

Definition at line 3500 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.965 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**

### 4.965.1 Detailed Description

Definition at line 3535 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.966 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**

### 4.966.1 Detailed Description

Definition at line 3558 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.967 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**

### 4.967.1 Detailed Description

Definition at line 3578 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.968 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**

### 4.968.1 Detailed Description

Definition at line 3604 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.969 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**

#### 4.969.1 Detailed Description

Definition at line 3633 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.970 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**

#### 4.970.1 Detailed Description

Definition at line 3659 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.971 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**

### 4.971.1 Detailed Description

Definition at line 3680 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.972 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**

### 4.972.1 Detailed Description

Definition at line 3701 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.973 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**

### 4.973.1 Detailed Description

Definition at line 3731 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.974 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**

### 4.974.1 Detailed Description

Definition at line 3757 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.975 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**

### 4.975.1 Detailed Description

Definition at line 3793 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.976 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**

#### 4.976.1 Detailed Description

Definition at line 3816 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.977 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**

#### 4.977.1 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

### 4.978 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**

#### 4.978.1 Detailed Description

Definition at line 3857 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.979 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**

#### 4.979.1 Detailed Description

Definition at line 3890 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.980 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**

#### 4.980.1 Detailed Description

Definition at line 3925 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.981 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**

### 4.981.1 Detailed Description

Definition at line 3945 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.982 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**



### 4.982.1 Detailed Description

Definition at line 3972 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.983 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**

### 4.983.1 Detailed Description

Definition at line 3995 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.984 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**
- struct **SFVec3f** **\_oldtrackPoint**
- struct **SFRotation** **\_oldrotation**
- struct **SFVec3f** **\_origPoint**
- float **\_radius**
- int **\_dlchange**
- int **\_\_oldEnabled**

### 4.984.1 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

## 4.985 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**

### 4.985.1 Detailed Description

Definition at line 4115 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.986 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**
- struct **Uni\_String** \* **address**
- int **applicationID**
- struct **Multi\_Node** mapping
- struct **X3D\_Node** \* **metadata**
- int **port**
- int **siteID**
- struct **Multi\_Node** **addedEntities**
- struct **Multi\_Node** **removedEntities**

#### 4.986.1 Detailed Description

Definition at line 4062 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.987 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 **category**
- int **country**
- int **domain**
- int **extra**
- int **kind**
- int **specific**
- int **subcategory**

### 4.987.1 Detailed Description

Definition at line 4088 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.988 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**

### 4.988.1 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

## 4.989 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`

### 4.989.1 Detailed Description

Definition at line 4170 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.990 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**

### 4.990.1 Detailed Description

Definition at line 4224 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.991 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**

### 4.991.1 Detailed Description

Definition at line 4247 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.992 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**

#### 4.992.1 Detailed Description

Definition at line 4270 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.993 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**

#### 4.993.1 Detailed Description

Definition at line 4299 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.994 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**

### 4.994.1 Detailed Description

Definition at line 4324 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.995 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**
- struct **Multi\_Node** **addChildren**
- struct **Multi\_Node** **removeChildren**
- struct **Multi\_Node** **\_\_sibAffectors**
- float **set\_articulationParameterValue0**
- float **set\_articulationParameterValue1**
- float **set\_articulationParameterValue2**
- float **set\_articulationParameterValue3**
- float **set\_articulationParameterValue4**
- float **set\_articulationParameterValue5**
- float **set\_articulationParameterValue6**
- float **set\_articulationParameterValue7**
- struct **Uni\_String** \* **address**
- int **applicationID**
- int **articulationParameterCount**
- struct **Multi\_Int32** **articulationParameterDesignatorArray**
- struct **Multi\_Int32** **articulationParameterChangeIndicatorArr**
- struct **Multi\_Int32** **articulationParameterIdPartAttachedToAr**
- struct **Multi\_Int32** **articulationParameterTypeArray**
- struct **Multi\_Float** **articulationParameterArray**
- struct **SFVec3f** **center**
- struct **Multi\_Node** **children**
- int **collisionType**
- int **deadReckoning**
- struct **SFVec3f** **detonationLocation**
- struct **SFVec3f** **detonationRelativeLocation**
- int **detonationResult**
- int **enabled**
- int **entityCategory**
- int **entityCountry**
- int **entityDomain**
- int **entityExtra**
- int **entityID**
- int **entityKind**
- int **entitySpecific**
- int **entitySubCategory**
- int **eventApplicationID**
- int **eventEntityID**

- int **eventNumber**
- int **eventSiteID**
- int **fired1**
- int **fired2**
- int **fireMissionIndex**
- float **firingRange**
- int **firingRate**
- int **forceID**
- int **fuse**
- struct **SFVec3f** **linearVelocity**
- struct **SFVec3f** **linearAcceleration**
- struct **Uni\_String** \* **marking**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- int **munitionApplicationID**
- struct **SFVec3f** **munitionEndPoint**
- int **munitionEntityID**
- int **munitionQuantity**
- int **munitionSiteID**
- struct **SFVec3f** **munitionStartPoint**
- struct **Uni\_String** \* **networkMode**
- int **port**
- double **readInterval**
- struct **SFRotation** **rotation**
- struct **SFVec3f** **scale**
- struct **SFRotation** **scaleOrientation**
- int **siteID**
- struct **SFVec3f** **translation**
- int **warhead**
- double **writeInterval**
- float **articulationParameterValue0\_changed**
- float **articulationParameterValue1\_changed**
- float **articulationParameterValue2\_changed**
- float **articulationParameterValue3\_changed**
- float **articulationParameterValue4\_changed**
- float **articulationParameterValue5\_changed**
- float **articulationParameterValue6\_changed**
- float **articulationParameterValue7\_changed**
- double **collideTime**
- double **detonateTime**
- double **firedTime**
- int **isActive**
- int **isCollided**
- int **isDetonated**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isRtpHeaderHeard**
- int **isStandAlone**
- double **timestamp**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**
- int **rtpHeaderExpected**

### 4.995.1 Detailed Description

Definition at line 4360 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.996 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**

### 4.996.1 Detailed Description

Definition at line 4468 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.997 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**

### 4.997.1 Detailed Description

Definition at line 4492 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.998 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**

### 4.998.1 Detailed Description

Definition at line 4525 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.999 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**

#### 4.999.1 Detailed Description

Definition at line 4550 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

### 4.1000 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`

#### 4.1000.1 Detailed Description

Definition at line 4572 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`



## 4.1001 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**

### 4.1001.1 Detailed Description

Definition at line 4600 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1002 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**

#### 4.1002.1 Detailed Description

Definition at line 4620 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

### 4.1003 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`

#### 4.1003.1 Detailed Description

Definition at line 4648 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1004 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**

### 4.1004.1 Detailed Description

Definition at line 4669 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1005 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 **Multi\_Int32** **\_\_geoSystem**
- struct **Multi\_Vec3f** **\_\_movedCoords**

#### 4.1005.1 Detailed Description

Definition at line 4695 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1006 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 **Multi\_Int32** **\_\_geoSystem**

#### 4.1006.1 Detailed Description

Definition at line 4719 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1007 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**
- struct **Multi\_Int32** **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedCoords**
- struct **SFVec4d** **\_\_localOrient**
- struct **SFVec3d** **\_\_oldgeoCoords**
- struct **Multi\_Node** **\_\_oldChildren**
- struct **Multi\_Node** **\_sortedChildren**

#### 4.1007.1 Detailed Description

Definition at line 4802 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1008 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 **Multi\_Int32** **\_\_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**

### 4.1008.1 Detailed Description

Definition at line 4758 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1009 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**

### 4.1009.1 Detailed Description

Definition at line 4836 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1010 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 **Multi\_Int32** \_\_geoSystem
- struct **SFVec3d** \_\_movedCoords
- struct **SFVec3d** \_\_oldgeoCoords
- struct **Multi\_String** \_\_oldMFString
- struct **SFVec4d** \_\_rotyup

#### 4.1010.1 Detailed Description

Definition at line 4858 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1011 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 **Multi\_Int32** **\_\_geoSystem**
- struct **Multi\_Vec3d** **\_\_movedValue**
- struct **Multi\_Float** **\_\_oldKeyPtr**
- struct **Multi\_Vec3d** **\_\_oldKeyValuePtr**

#### 4.1011.1 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



## 4.1012 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 **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 **Multi\_Int32** **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedCoords**
- struct **SFVec4d** **\_\_localOrient**
- int **\_\_oldEnabled**
- struct **SFVec3d** **\_\_oldGeoCenter**
- struct **SFVec3f** **\_\_oldSize**

### 4.1012.1 Detailed Description

Definition at line 4915 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1013 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 **Multi\_Int32** **\_\_geoSystem**
- struct **SFVec3f** **\_oldhitNormal**
- struct **SFVec3f** **\_oldhitPoint**
- struct **SFVec2f** **\_oldhitTexCoord**
- int **\_\_oldEnabled**

### 4.1013.1 Detailed Description

Definition at line 4955 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1014 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 **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**
- struct **Multi\_Int32** **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedCoords**
- struct **SFVec4d** **\_\_localOrient**
- struct **SFVec3d** **\_\_oldGeoCenter**
- struct **Multi\_Node** **\_\_oldChildren**
- struct **Multi\_Node** **\_sortedChildren**

### 4.1014.1 Detailed Description

Definition at line 4990 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1015 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 **set\_bind**
- double **bindTime**
- int **isBound**
- struct **Uni\_String** \* **description**
- int **jump**
- float **fieldOfView**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **orientation**
- struct **SFVec3d** **position**
- int **\_layerId**
- int **\_donethispass**
- struct **SFRotation** **set\_orientation**
- struct **SFVec3d** **set\_position**
- int **headlight**
- struct **Multi\_String** **navType**
- struct **X3D\_Node** \* **geoOrigin**
- struct **Multi\_String** **geoSystem**
- float **speedFactor**
- struct **Multi\_Int32** **\_\_geoSystem**
- struct **SFVec3d** **\_\_movedPosition**
- struct **SFRotation** **\_\_movedOrientation**
- struct **Uni\_String** \* **\_\_oldSFString**
- float **\_\_oldFieldOfView**
- int **\_\_oldHeadlight**
- int **\_\_oldJump**
- struct **Multi\_String** **\_\_oldMFString**

### 4.1015.1 Detailed Description

Definition at line 5033 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1016 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**

### 4.1016.1 Detailed Description

Definition at line 5077 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1017 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**

#### 4.1017.1 Detailed Description

Definition at line 5103 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1018 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**

### 4.1018.1 Detailed Description

Definition at line 5126 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1019 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**

#### 4.1019.1 Detailed Description

Definition at line 5170 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1020 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**

#### 4.1020.1 Detailed Description

Definition at line 5214 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1021 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**

### 4.1021.1 Detailed Description

Definition at line 5246 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1022 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**

### 4.1022.1 Detailed Description

Definition at line 5283 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1023 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**

#### 4.1023.1 Detailed Description

Definition at line 5310 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1024 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**

#### 4.1024.1 Detailed Description

Definition at line 5335 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1025 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`

### 4.1025.1 Detailed Description

Definition at line 5360 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1026 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**

#### 4.1026.1 Detailed Description

Definition at line 5387 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1027 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

#### 4.1027.1 Detailed Description

Definition at line 5426 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1028 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**

#### 4.1028.1 Detailed Description

Definition at line 5460 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1029 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**

#### 4.1029.1 Detailed Description

Definition at line 5492 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1030 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**

### 4.1030.1 Detailed Description

Definition at line 5524 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1031 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**

#### 4.1031.1 Detailed Description

Definition at line 5556 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1032 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**

#### 4.1032.1 Detailed Description

Definition at line 5588 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1033 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**

#### 4.1033.1 Detailed Description

Definition at line 5638 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1034 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**

#### 4.1034.1 Detailed Description

Definition at line 5663 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1035 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**

### 4.1035.1 Detailed Description

Definition at line 5685 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1036 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**

#### 4.1036.1 Detailed Description

Definition at line 5714 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1037 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**

#### 4.1037.1 Detailed Description

Definition at line 5775 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1038 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**

#### 4.1038.1 Detailed Description

Definition at line 5800 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1039 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

### 4.1039.1 Detailed Description

Definition at line 5822 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1040 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**

#### 4.1040.1 Detailed Description

Definition at line 5852 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1041 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**



#### 4.1041.1 Detailed Description

Definition at line 5879 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1042 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**

#### 4.1042.1 Detailed Description

Definition at line 5905 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1043 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**

### 4.1043.1 Detailed Description

Definition at line 5937 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1044 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**

#### 4.1044.1 Detailed Description

Definition at line 5959 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1045 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**

#### 4.1045.1 Detailed Description

Definition at line 5993 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1046 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 **isLoaded**
- double **loadTime**
- float **progress**
- int **\_\_loading**
- int **\_\_finishedloading**
- double **\_\_StartLoadTime**
- int **\_\_oldEnabled**

#### 4.1046.1 Detailed Description

Definition at line 6020 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1047 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**

### 4.1047.1 Detailed Description

Definition at line 6050 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1048 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 levelChanged
- int forceTransitions
- int \_\_isX3D
- void \* \_\_selected

#### 4.1048.1 Detailed Description

Definition at line 5743 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1049 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**

#### 4.1049.1 Detailed Description

Definition at line 6075 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1050 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**

#### 4.1050.1 Detailed Description

Definition at line 6101 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1051 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**

#### 4.1051.1 Detailed Description

Definition at line 6122 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1052 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

#### 4.1052.1 Detailed Description

Definition at line 6143 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1053 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

### 4.1053.1 Detailed Description

Definition at line 6165 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1054 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

#### 4.1054.1 Detailed Description

Definition at line 6187 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1055 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

#### 4.1055.1 Detailed Description

Definition at line 6209 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1056 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**

### 4.1056.1 Detailed Description

Definition at line 6231 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1057 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**

#### 4.1057.1 Detailed Description

Definition at line 6253 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1058 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**

#### 4.1058.1 Detailed Description

Definition at line 6275 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1059 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**

### 4.1059.1 Detailed Description

Definition at line 6297 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1060 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**

#### 4.1060.1 Detailed Description

Definition at line 6319 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1061 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**

#### 4.1061.1 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

## 4.1062 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**

### 4.1062.1 Detailed Description

Definition at line 6363 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1063 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**

#### 4.1063.1 Detailed Description

Definition at line 6385 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1064 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**

#### 4.1064.1 Detailed Description

Definition at line 6407 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1065 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**

### 4.1065.1 Detailed Description

Definition at line 6429 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1066 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**

#### 4.1066.1 Detailed Description

Definition at line 6451 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1067 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**

#### 4.1067.1 Detailed Description

Definition at line 6473 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1068 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**

### 4.1068.1 Detailed Description

Definition at line 6495 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1069 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**

#### 4.1069.1 Detailed Description

Definition at line 6517 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1070 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**

#### 4.1070.1 Detailed Description

Definition at line 6539 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1071 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**

### 4.1071.1 Detailed Description

Definition at line 6561 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1072 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**

#### 4.1072.1 Detailed Description

Definition at line 6583 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1073 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**

#### 4.1073.1 Detailed Description

Definition at line 6605 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1074 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**

### 4.1074.1 Detailed Description

Definition at line 6627 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1075 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**

#### 4.1075.1 Detailed Description

Definition at line 6649 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1076 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**

#### 4.1076.1 Detailed Description

Definition at line 7133 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1077 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**

### 4.1077.1 Detailed Description

Definition at line 6671 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1078 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**

#### 4.1078.1 Detailed Description

Definition at line 6693 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1079 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**

#### 4.1079.1 Detailed Description

Definition at line 6715 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1080 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**

### 4.1080.1 Detailed Description

Definition at line 6737 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1081 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**

#### 4.1081.1 Detailed Description

Definition at line 6759 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

### 4.1082 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`

#### 4.1082.1 Detailed Description

Definition at line 6781 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1083 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**

### 4.1083.1 Detailed Description

Definition at line 6803 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1084 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**

#### 4.1084.1 Detailed Description

Definition at line 6825 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1085 X3D\_MetadataSFMMatrix3f Struct Reference

##### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- 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 **SFMMatrix3f** **value**
- struct **SFMMatrix3f** **valueChanged**
- struct **SFMMatrix3f** **setValue**
- double **tickTime**

#### 4.1085.1 Detailed Description

Definition at line 6847 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1086 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**

### 4.1086.1 Detailed Description

Definition at line 6869 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1087 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**

#### 4.1087.1 Detailed Description

Definition at line 6891 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1088 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**

#### 4.1088.1 Detailed Description

Definition at line 6913 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1089 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**

### 4.1089.1 Detailed Description

Definition at line 6935 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1090 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**

#### 4.1090.1 Detailed Description

Definition at line 6957 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1091 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**

#### 4.1091.1 Detailed Description

Definition at line 6979 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1092 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**

### 4.1092.1 Detailed Description

Definition at line 7001 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1093 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**

#### 4.1093.1 Detailed Description

Definition at line 7023 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

### 4.1094 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`

#### 4.1094.1 Detailed Description

Definition at line 7045 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`

## 4.1095 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**

### 4.1095.1 Detailed Description

Definition at line 7067 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1096 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**

#### 4.1096.1 Detailed Description

Definition at line 7089 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1097 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**

#### 4.1097.1 Detailed Description

Definition at line 7111 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1098 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

### 4.1098.1 Detailed Description

Definition at line 7155 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1099 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**

#### 4.1099.1 Detailed Description

Definition at line 7177 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1100 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**

### 4.1100.1 Detailed Description

Definition at line 7232 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1101 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**

### 4.1101.1 Detailed Description

Definition at line 7279 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1102 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**

#### 4.1102.1 Detailed Description

Definition at line 7305 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1103 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**

#### 4.1103.1 Detailed Description

Definition at line 7325 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1104 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**

#### 4.1104.1 Detailed Description

Definition at line 7345 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1105 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**

#### 4.1105.1 Detailed Description

Definition at line 2502 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1106 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**

### 4.1106.1 Detailed Description

Definition at line 7376 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1107 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**

#### 4.1107.1 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

### 4.1108 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**

#### 4.1108.1 Detailed Description

Definition at line 7419 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1109 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**

### 4.1109.1 Detailed Description

Definition at line 7447 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1110 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**

#### 4.1110.1 Detailed Description

Definition at line 7473 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1111 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**



#### 4.1111.1 Detailed Description

Definition at line 7502 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1112 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**

#### 4.1112.1 Detailed Description

Definition at line 7536 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1113 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**

### 4.1113.1 Detailed Description

Definition at line 7565 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1114 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**

#### 4.1114.1 Detailed Description

Definition at line 7590 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1115 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**

#### 4.1115.1 Detailed Description

Definition at line 7624 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1116 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**

#### 4.1116.1 Detailed Description

Definition at line 7650 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1117 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**

### 4.1117.1 Detailed Description

Definition at line 7674 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1118 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**

#### 4.1118.1 Detailed Description

Definition at line 7704 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1119 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**

#### 4.1119.1 Detailed Description

Definition at line 7782 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1120 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**

#### 4.1120.1 Detailed Description

Definition at line 7803 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1121 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**

### 4.1121.1 Detailed Description

Definition at line 7836 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1122 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**

### 4.1122.1 Detailed Description

Definition at line 7871 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1123 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 **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**
- int **\_layerId**
- int **\_donethispass**
- struct **SFVec3f** **centerOfRotation**
- int **retainUserOffsets**

#### 4.1123.1 Detailed Description

Definition at line 7894 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1124 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**

#### 4.1124.1 Detailed Description

Definition at line 7741 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1125 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**

#### 4.1125.1 Detailed Description

Definition at line 7925 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

#### 4.1126 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**

#### 4.1126.1 Detailed Description

Definition at line 7954 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1127 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**

#### 4.1127.1 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

## 4.1128 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**

### 4.1128.1 Detailed Description

Definition at line 8028 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1129 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**

#### 4.1129.1 Detailed Description

Definition at line 8053 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1130 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**
- struct **SFVec3f** **\_oldtrackPoint**
- struct **SFVec3f** **\_oldtranslation**
- struct **SFVec3f** **\_origPoint**
- int **\_\_oldEnabled**

#### 4.1130.1 Detailed Description

Definition at line 8080 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1131 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**

#### 4.1131.1 Detailed Description

Definition at line 8114 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1132 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**

### 4.1132.1 Detailed Description

Definition at line 8139 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1133 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**

#### 4.1133.1 Detailed Description

Definition at line 8169 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1134 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**

#### 4.1134.1 Detailed Description

Definition at line 8207 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1135 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**

#### 4.1135.1 Detailed Description

Definition at line 8234 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1136 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**
- 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**

### 4.1136.1 Detailed Description

Definition at line 8254 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1137 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**

### 4.1137.1 Detailed Description

Definition at line 8285 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1138 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]

### 4.1138.1 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

## 4.1139 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**

### 4.1139.1 Detailed Description

Definition at line 8305 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1140 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**

### 4.1140.1 Detailed Description

Definition at line 8338 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1141 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**

### 4.1141.1 Detailed Description

Definition at line 8371 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1142 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**

### 4.1142.1 Detailed Description

Definition at line 8406 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1143 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**

### 4.1143.1 Detailed Description

Definition at line 8441 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1144 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**

#### 4.1144.1 Detailed Description

Definition at line 8464 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1145 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**

#### 4.1145.1 Detailed Description

Definition at line 8487 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1146 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**

### 4.1146.1 Detailed Description

Definition at line 8516 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1147 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**

### 4.1147.1 Detailed Description

Definition at line 8544 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1148 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**

#### 4.1148.1 Detailed Description

Definition at line 8567 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1149 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**

#### 4.1149.1 Detailed Description

Definition at line 8617 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1150 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**

### 4.1150.1 Detailed Description

Definition at line 8649 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1151 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**
- struct **Uni\_String** \* **address**
- int **applicationID**
- int **enabled**
- int **entityID**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **port**
- int **radioID**
- float **readInterval**
- float **receivedPower**
- int **receiverState**
- int **rtpHeaderExpected**
- int **siteID**
- int **transmitterApplicationID**
- int **transmitterEntityID**
- int **transmitterRadioID**
- int **transmitterSiteID**
- int **whichGeometry**
- float **writeInterval**
- int **isActive**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isRtpHeaderHeard**
- int **isStandAlone**
- double **timestamp**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

#### 4.1151.1 Detailed Description

Definition at line 8679 of file Structs.h.

The documentation for this struct was generated from the following file:

- `src/lib/vrml_parser/Structs.h`



## 4.1152 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**

### 4.1152.1 Detailed Description

Definition at line 8726 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1153 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**

#### 4.1153.1 Detailed Description

Definition at line 8749 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1154 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**

#### 4.1154.1 Detailed Description

Definition at line 8799 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1155 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**

#### 4.1155.1 Detailed Description

Definition at line 8836 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1156 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**

#### 4.1156.1 Detailed Description

Definition at line 8869 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1157 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**

#### 4.1157.1 Detailed Description

Definition at line 8904 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1158 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**

### 4.1158.1 Detailed Description

Definition at line 8927 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1159 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**

#### 4.1159.1 Detailed Description

Definition at line 8955 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1160 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**

#### 4.1160.1 Detailed Description

Definition at line 8980 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1161 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**

### 4.1161.1 Detailed Description

Definition at line 9004 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1162 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**

#### 4.1162.1 Detailed Description

Definition at line 9031 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1163 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**

#### 4.1163.1 Detailed Description

Definition at line 9057 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1164 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**

### 4.1164.1 Detailed Description

Definition at line 9082 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1165 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**

#### 4.1165.1 Detailed Description

Definition at line 9107 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1166 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**
- struct **Uni\_String** \* **address**
- int **applicationID**
- struct **Multi\_Int32** **data**
- int **dataLength**
- int **enabled**
- int **encodingScheme**
- int **entityID**
- struct **X3D\_Node** \* **metadata**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **port**
- int **radioID**
- float **readInterval**

- int **rtpHeaderExpected**
- int **sampleRate**
- int **samples**
- int **siteID**
- int **tdlType**
- int **whichGeometry**
- float **writeInterval**
- int **isActive**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isRtpHeaderHeard**
- int **isStandAlone**
- double **timestamp**
- struct **SFVec3f bboxCenter**
- struct **SFVec3f bboxSize**

#### 4.1166.1 Detailed Description

Definition at line 9136 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1167 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**

### 4.1167.1 Detailed Description

Definition at line 9183 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1168 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**

### 4.1168.1 Detailed Description

Definition at line 9207 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1169 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**

### 4.1169.1 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

## 4.1170 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**

### 4.1170.1 Detailed Description

Definition at line 9280 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1171 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**

#### 4.1171.1 Detailed Description

Definition at line 9312 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1172 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**



#### 4.1172.1 Detailed Description

Definition at line 9338 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1173 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**

#### 4.1173.1 Detailed Description

Definition at line 9371 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1174 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**

### 4.1174.1 Detailed Description

Definition at line 9399 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1175 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**

#### 4.1175.1 Detailed Description

Definition at line 9427 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1176 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**

#### 4.1176.1 Detailed Description

Definition at line 9455 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1177 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**

#### 4.1177.1 Detailed Description

Definition at line 9489 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1178 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**

### 4.1178.1 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

## 4.1179 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 **\_initialized**
- int **\_\_oldEnabled**

#### 4.1179.1 Detailed Description

Definition at line 9542 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1180 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**
- 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**

### 4.1180.1 Detailed Description

Definition at line 9568 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1181 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**

### 4.1181.1 Detailed Description

Definition at line 9596 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1182 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**

### 4.1182.1 Detailed Description

Definition at line 9624 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1183 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**

#### 4.1183.1 Detailed Description

Definition at line 9645 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1184 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**

#### 4.1184.1 Detailed Description

Definition at line 9678 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1185 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**

#### 4.1185.1 Detailed Description

Definition at line 9713 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1186 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**

### 4.1186.1 Detailed Description

Definition at line 9742 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1187 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

### 4.1187.1 Detailed Description

Definition at line 9781 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1188 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

#### 4.1188.1 Detailed Description

Definition at line 9801 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1189 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**

#### 4.1189.1 Detailed Description

Definition at line 9821 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1190 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**

### 4.1190.1 Detailed Description

Definition at line 9841 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1191 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**

### 4.1191.1 Detailed Description

Definition at line 9862 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1192 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**

### 4.1192.1 Detailed Description

Definition at line 9892 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1193 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**

#### 4.1193.1 Detailed Description

Definition at line 9915 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1194 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**

#### 4.1194.1 Detailed Description

Definition at line 9938 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1195 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**

#### 4.1195.1 Detailed Description

Definition at line 9958 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1196 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**

#### 4.1196.1 Detailed Description

Definition at line 9994 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1197 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**

#### 4.1197.1 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

## 4.1198 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**

### 4.1198.1 Detailed Description

Definition at line 10038 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1199 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**

#### 4.1199.1 Detailed Description

Definition at line 10069 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1200 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**

#### 4.1200.1 Detailed Description

Definition at line 10095 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1201 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**

#### 4.1201.1 Detailed Description

Definition at line 10132 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1202 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**
- struct **Uni\_String** \* **address**
- struct **SFVec3f** **antennaLocation**
- int **antennaPatternLength**
- int **antennaPatternType**
- int **applicationID**
- int **cryptoKeyID**
- int **cryptoSystem**
- int **enabled**
- int **entityID**
- int **frequency**
- int **inputSource**
- int **lengthOfModulationParameters**
- struct **X3D\_Node** \* **metadata**
- int **modulationTypeDetail**
- int **modulationTypeMajor**
- int **modulationTypeSpreadSpectrum**
- int **modulationTypeSystem**
- struct **Uni\_String** \* **multicastRelayHost**
- int **multicastRelayPort**
- struct **Uni\_String** \* **networkMode**
- int **port**
- float **power**
- int **radioEntityTypeCategory**
- int **radioEntityTypeCountry**
- int **radioEntityTypeDomain**
- int **radioEntityTypeKind**
- int **radioEntityTypeNomenclature**

- int **radioEntityTypeNomenclatureVersion**
- int **radioID**
- float **readInterval**
- struct **SFVec3f** **relativeAntennaLocation**
- int **rtpHeaderExpected**
- int **siteID**
- float **transmitFrequencyBandwidth**
- int **transmitState**
- int **whichGeometry**
- float **writeInterval**
- int **isActive**
- int **isNetworkReader**
- int **isNetworkWriter**
- int **isRtpHeaderHeard**
- int **isStandAlone**
- double **timestamp**
- struct **SFVec3f** **bboxCenter**
- struct **SFVec3f** **bboxSize**

#### 4.1202.1 Detailed Description

Definition at line 10164 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1203 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**

#### 4.1203.1 Detailed Description

Definition at line 10227 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1204 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**

#### 4.1204.1 Detailed Description

Definition at line 10258 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h



## 4.1205 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**

### 4.1205.1 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

## 4.1206 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**

#### 4.1206.1 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

### 4.1207 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**

### 4.1207.1 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

## 4.1208 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**

#### 4.1208.1 Detailed Description

Definition at line 10376 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1209 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 **set\_bind**
- double **bindTime**
- int **isBound**
- struct **Uni\_String** \* **description**
- int **jump**
- float **fieldOfView**
- struct **X3D\_Node** \* **metadata**
- struct **SFRotation** **orientation**
- struct **SFVec3f** **position**
- int **\_layerId**
- int **\_donethispass**
- struct **SFVec3f** **centerOfRotation**
- int **retainUserOffsets**
- struct **Uni\_String** \* **fovMode**
- float **aspectRatio**

#### 4.1209.1 Detailed Description

Definition at line 10416 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1210 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**

### 4.1210.1 Detailed Description

Definition at line 10449 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1211 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**

#### 4.1211.1 Detailed Description

Definition at line 10475 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1212 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 \*)

#### 4.1212.1 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

## 4.1213 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**

### 4.1213.1 Detailed Description

Definition at line 10501 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1214 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**

#### 4.1214.1 Detailed Description

Definition at line 10531 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

### 4.1215 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**
- 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**



### 4.1215.1 Detailed Description

Definition at line 10556 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1216 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**

### 4.1216.1 Detailed Description

Definition at line 10585 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1217 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**

### 4.1217.1 Detailed Description

Definition at line 10614 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1218 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**

### 4.1218.1 Detailed Description

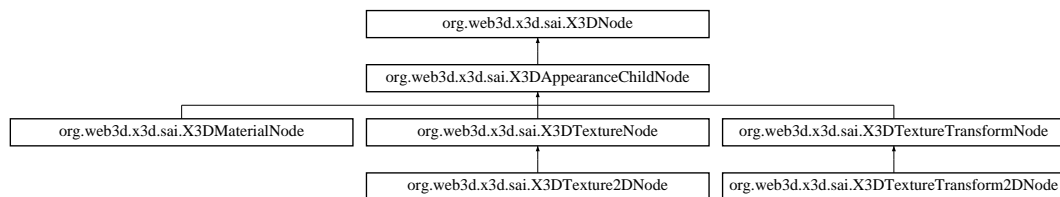
Definition at line 10639 of file Structs.h.

The documentation for this struct was generated from the following file:

- src/lib/vrml\_parser/Structs.h

## 4.1219 org.web3d.x3d.sai.X3DAppearanceChildNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DAppearanceChildNode:



### Additional Inherited Members

### 4.1219.1 Detailed Description

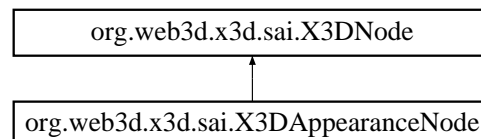
Definition at line 3 of file X3DAppearanceChildNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DAppearanceChildNode.java

## 4.1220 org.web3d.x3d.sai.X3DAppearanceNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DAppearanceNode:



### Additional Inherited Members

### 4.1220.1 Detailed Description

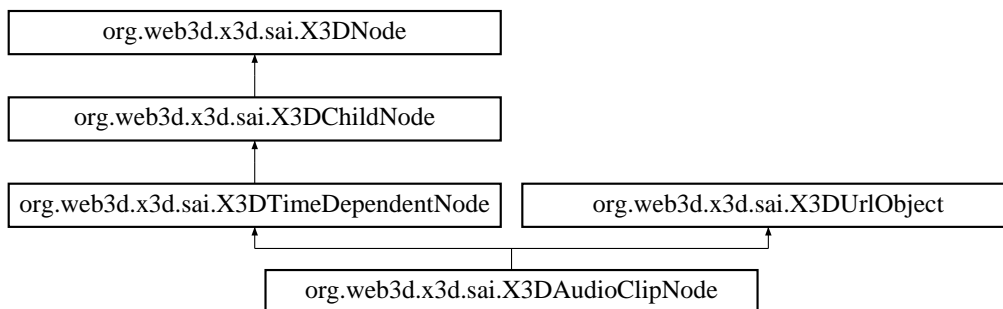
Definition at line 3 of file X3DAppearanceNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DAppearanceNode.java

## 4.1221 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)

### 4.1221.1 Detailed Description

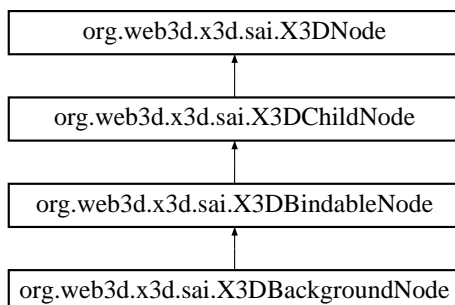
Definition at line 3 of file X3DAudioClipNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DAudioClipNode.java

## 4.1222 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)

### 4.1222.1 Detailed Description

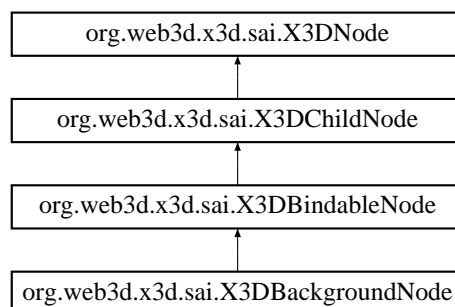
Definition at line 3 of file X3DBackgroundNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DBackgroundNode.java

## 4.1223 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** ()

### 4.1223.1 Detailed Description

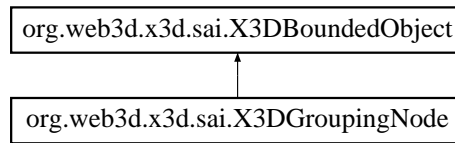
Definition at line 3 of file X3DBindableNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DBindableNode.java

## 4.1224 org.web3d.x3d.sai.X3DBoundedObject Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DBoundedObject:



### 4.1224.1 Detailed Description

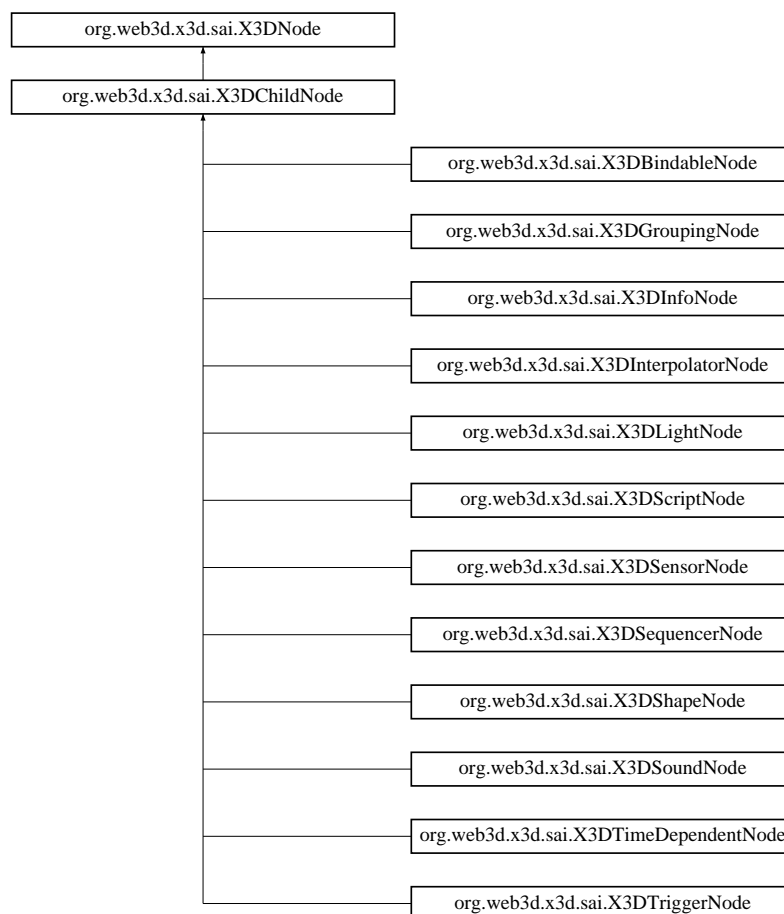
Definition at line 3 of file `X3DBoundedObject.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DBoundedObject.java`

## 4.1225 org.web3d.x3d.sai.X3DChildNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DChildNode:



## Additional Inherited Members

### 4.1225.1 Detailed Description

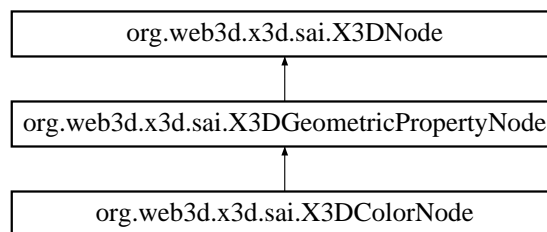
Definition at line 3 of file X3DChildNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DChildNode.java

## 4.1226 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)

### 4.1226.1 Detailed Description

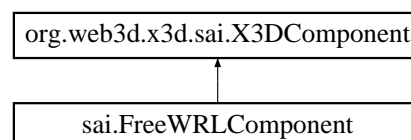
Definition at line 3 of file X3DColorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DColorNode.java

## 4.1227 org.web3d.x3d.sai.X3DComponent Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DComponent:



## Public Member Functions

- **ExternalBrowser** **getBrowser** ()
- Object **getImplementation** ()
- void **shutdown** ()

### 4.1227.1 Detailed Description

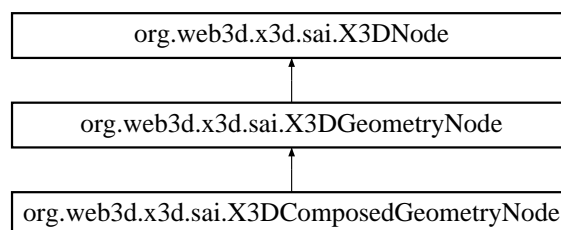
Definition at line 3 of file X3DComponent.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DComponent.java

## 4.1228 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)



### 4.1228.1 Detailed Description

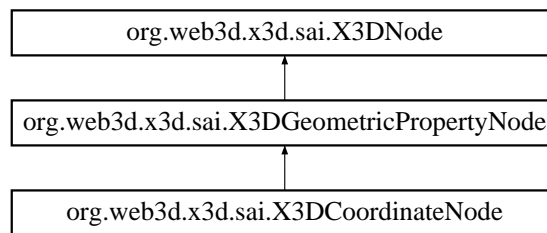
Definition at line 3 of file X3DComposedGeometryNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DComposedGeometryNode.java

## 4.1229 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)

### 4.1229.1 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

## 4.1230 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)

### 4.1230.1 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

## 4.1231 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)

### 4.1231.1 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

## 4.1232 org.web3d.x3d.sai.X3DException Class Reference

Inheritance diagram for org.web3d.x3d.sai.X3DException:



### Public Member Functions

- **X3DException** (String msg)

#### 4.1232.1 Detailed Description

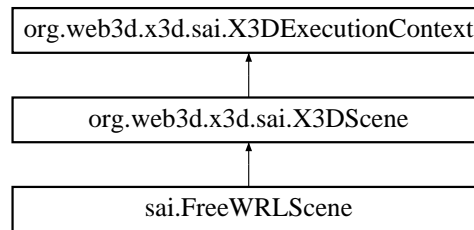
Definition at line 3 of file X3DException.java.

The documentation for this class was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DException.java

## 4.1233 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

#### 4.1233.1 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

### 4.1234 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`

#### 4.1234.1 Detailed Description

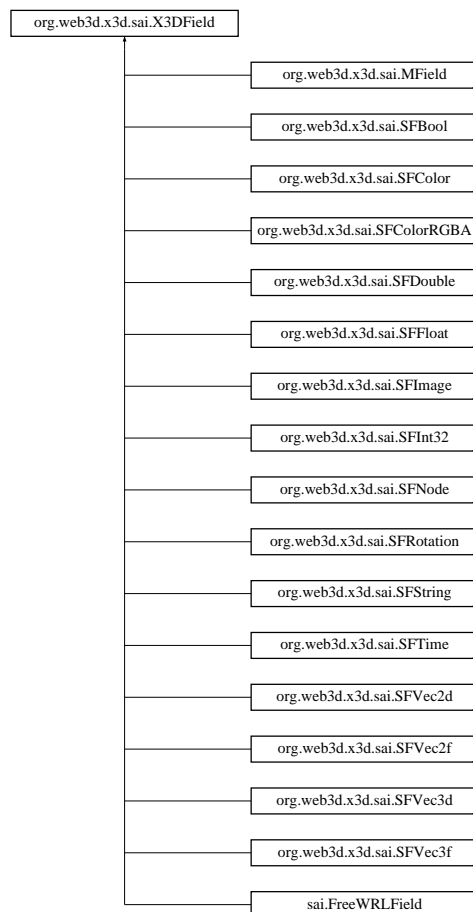
Definition at line 3 of file X3DExternProtoDeclaration.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DExternProtoDeclaration.java

### 4.1235 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** ()

### 4.1235.1 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

## 4.1236 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** ()

#### 4.1236.1 Detailed Description

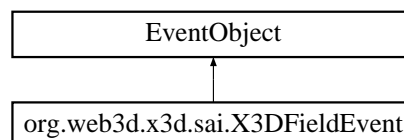
Definition at line 3 of file X3DFieldDefinition.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DFieldDefinition.java

## 4.1237 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** ()

#### 4.1237.1 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

## 4.1238 org.web3d.x3d.sai.X3DFieldEventListener Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DFieldEventListener:



### Public Member Functions

- void **readableFieldChanged** ( **X3DFieldEvent** evt)

### 4.1238.1 Detailed Description

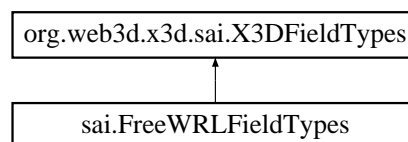
Definition at line 3 of file `X3DFieldEventListener.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DFieldEventListener.java`

## 4.1239 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

#### 4.1239.1 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

## 4.1240 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

### 4.1240.1 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

## 4.1241 org.web3d.x3d.sai.X3DGeometricPropertyNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DGeometricPropertyNode:



## Additional Inherited Members

### 4.1241.1 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

## 4.1242 org.web3d.x3d.sai.X3DGeometryNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DGeometryNode:



## Additional Inherited Members

### 4.1242.1 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

## 4.1243 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** ()

### 4.1243.1 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

## 4.1244 org.web3d.x3d.sai.X3DInfoNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DInfoNode:



## Additional Inherited Members

### 4.1244.1 Detailed Description

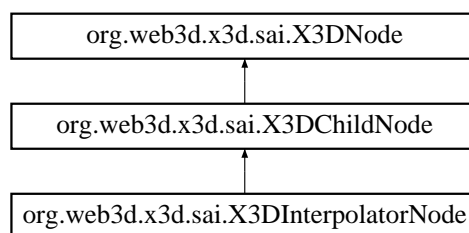
Definition at line 3 of file X3DInfoNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DInfoNode.java

## 4.1245 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)

### 4.1245.1 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

## 4.1246 org.web3d.x3d.sai.X3DKeyDeviceSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DKeyDeviceSensorNode:



## Additional Inherited Members

### 4.1246.1 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

## 4.1247 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

### 4.1247.1 Detailed Description

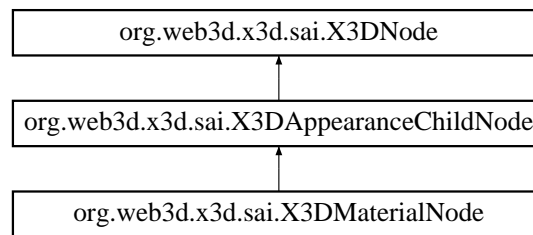
Definition at line 3 of file X3DLightNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DLightNode.java

## 4.1248 org.web3d.x3d.sai.X3DMaterialNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DMaterialNode:



### Additional Inherited Members

#### 4.1248.1 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

## 4.1249 org.web3d.x3d.sai.X3DMetadataObject Interface Reference

### Public Member Functions

- void **setStandard** (String std)
- String **getStandard** ()
- void **setName** (String name)
- String **getName** ()

#### 4.1249.1 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

## 4.1250 org.web3d.x3d.sai.X3DNetworkSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DNetworkSensorNode:



### Additional Inherited Members

#### 4.1250.1 Detailed Description

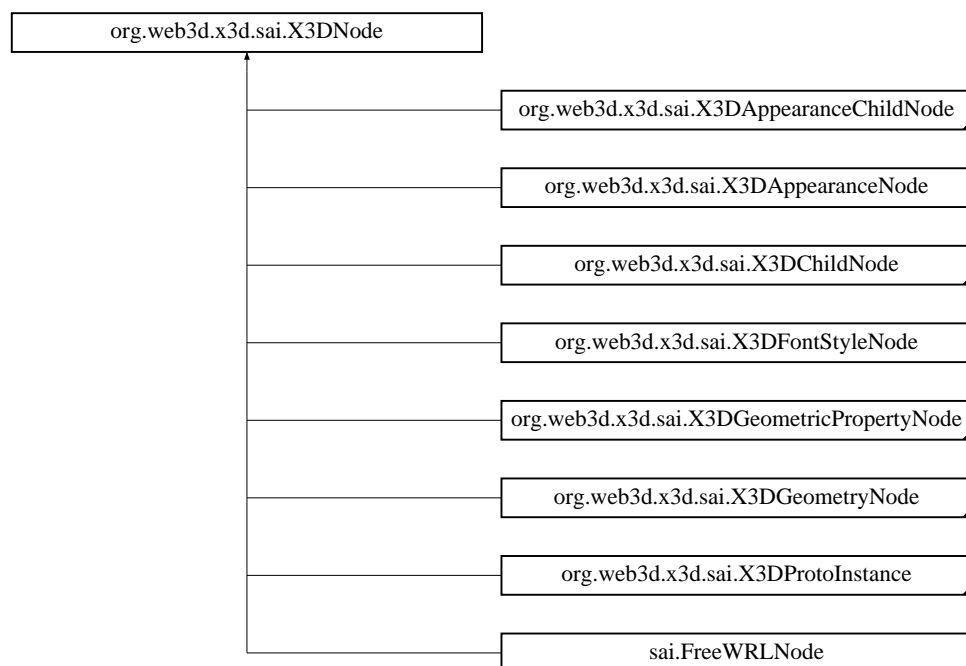
Definition at line 3 of file X3DNetworkSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DNetworkSensorNode.java

## 4.1251 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 [] **getNodeTypes** () throws `InvalidNodeException`, `ConnectionException`
- **X3DField** **getField** (String name) throws `InvalidNameException`, `InvalidNodeException`, `ConnectionException`
- void **dispose** ()

### 4.1251.1 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`

## 4.1252 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

#### 4.1252.1 Detailed Description

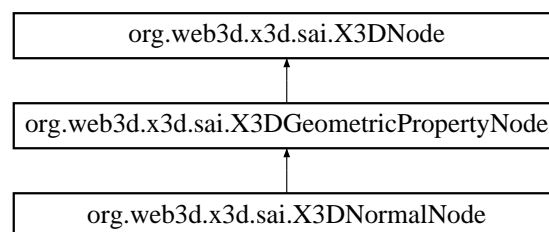
Definition at line 3 of file X3DNodeTypes.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DNodeTypes.java

### 4.1253 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)

#### 4.1253.1 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`

### 4.1254 `org.web3d.x3d.sai.X3DParametricGeometryNode` Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DParametricGeometryNode`:



#### Additional Inherited Members

#### 4.1254.1 Detailed Description

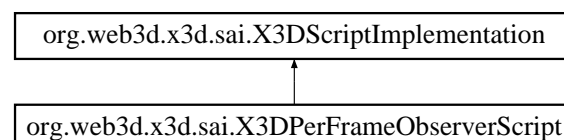
Definition at line 3 of file X3DParametricGeometryNode.java.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DParametricGeometryNode.java`

### 4.1255 `org.web3d.x3d.sai.X3DPerFrameObserverScript` Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DPerFrameObserverScript`:



#### Public Member Functions

- `void prepareEvents ()`

### 4.1255.1 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

## 4.1256 org.web3d.x3d.sai.X3DPointingDeviceSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DPointingDeviceSensorNode:



### Additional Inherited Members

### 4.1256.1 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

## 4.1257 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 ()**

### 4.1257.1 Detailed Description

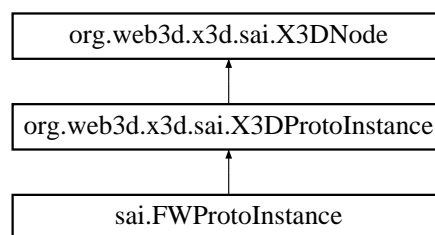
Definition at line 3 of file `X3DProtoDeclaration.java`.

The documentation for this interface was generated from the following file:

- `src/java/org/web3d/x3d/sai/X3DProtoDeclaration.java`

## 4.1258 org.web3d.x3d.sai.X3DProtoInstance Interface Reference

Inheritance diagram for `org.web3d.x3d.sai.X3DProtoInstance`:



## Public Member Functions

- int [] **getImplementationTypes ()**

### 4.1258.1 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`

## 4.1259 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

### 4.1259.1 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

## 4.1260 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** ()

### 4.1260.1 Detailed Description

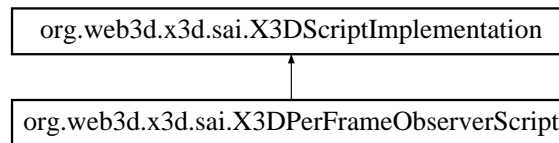
Definition at line 3 of file X3DScene.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DScene.java

## 4.1261 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** ()

### 4.1261.1 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`

## 4.1262 org.web3d.x3d.sai.X3DScriptNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DScriptNode:



### Additional Inherited Members

### 4.1262.1 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`

## 4.1263 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** ()

#### 4.1263.1 Detailed Description

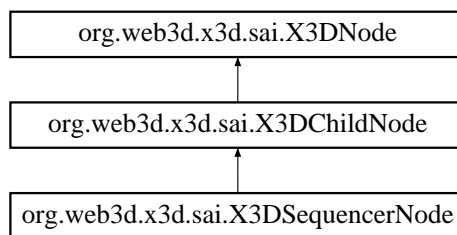
Definition at line 3 of file X3DSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSensorNode.java

## 4.1264 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** ()

#### 4.1264.1 Detailed Description

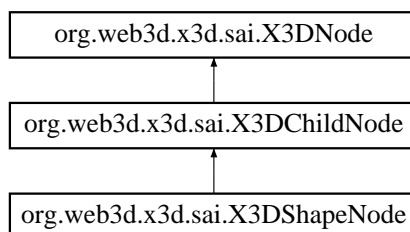
Definition at line 3 of file X3DSequencerNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSequencerNode.java

#### 4.1265 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)

#### 4.1265.1 Detailed Description

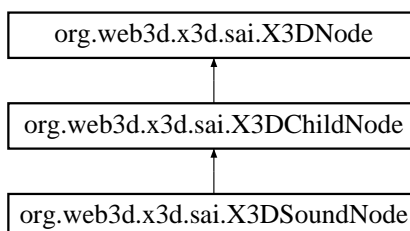
Definition at line 3 of file X3DShapeNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DShapeNode.java

#### 4.1266 org.web3d.x3d.sai.X3DSoundNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DSoundNode:





## Additional Inherited Members

### 4.1266.1 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

## 4.1267 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)

### 4.1267.1 Detailed Description

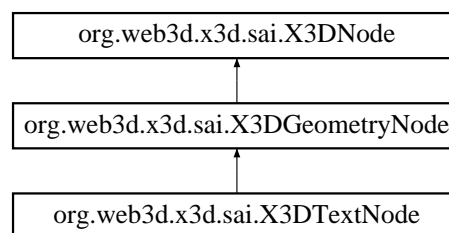
Definition at line 3 of file X3DSoundSourceNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DSoundSourceNode.java

## 4.1268 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)

#### 4.1268.1 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

#### 4.1269 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** ()

#### 4.1269.1 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

#### 4.1270 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)

### 4.1270.1 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

## 4.1271 org.web3d.x3d.sai.X3DTextureNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextureNode:



## Additional Inherited Members

### 4.1271.1 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

## 4.1272 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)

### 4.1272.1 Detailed Description

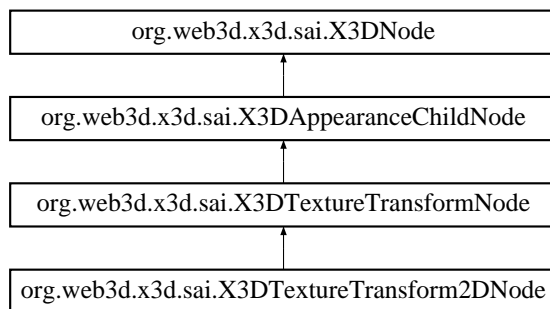
Definition at line 3 of file X3DTextureTransform2DNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextureTransform2DNode.java

## 4.1273 org.web3d.x3d.sai.X3DTextureTransformNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTextureTransformNode:



## Additional Inherited Members

### 4.1273.1 Detailed Description

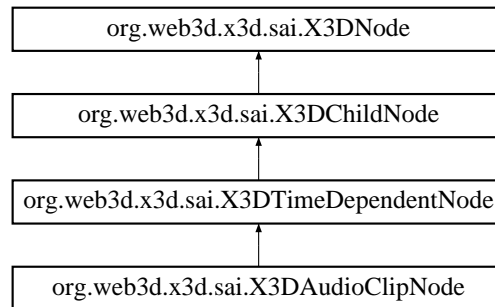
Definition at line 3 of file X3DTextureTransformNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTextureTransformNode.java

## 4.1274 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** ()

### 4.1274.1 Detailed Description

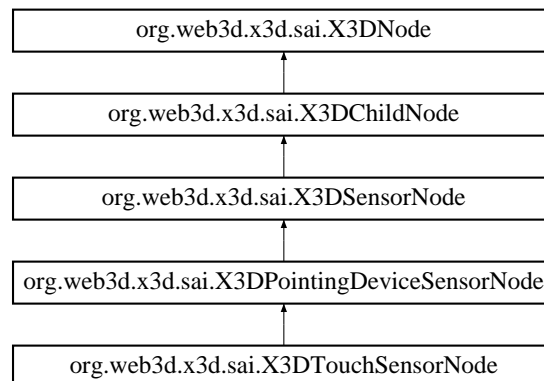
Definition at line 3 of file X3DTimeDependentNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTimeDependentNode.java

## 4.1275 org.web3d.x3d.sai.X3DTouchSensorNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTouchSensorNode:



### Public Member Functions

- boolean **getIsOver** ()
- double **getEnterTime** ()
- double **getTouchTime** ()

### 4.1275.1 Detailed Description

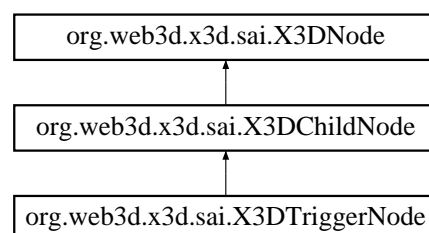
Definition at line 3 of file X3DTouchSensorNode.java.

The documentation for this interface was generated from the following file:

- src/java/org/web3d/x3d/sai/X3DTouchSensorNode.java

## 4.1276 org.web3d.x3d.sai.X3DTriggerNode Interface Reference

Inheritance diagram for org.web3d.x3d.sai.X3DTriggerNode:



## Additional Inherited Members

### 4.1276.1 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

## 4.1277 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)

### 4.1277.1 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

## 4.1278 xml\_user\_data Struct Reference

## Data Fields

- **Stack \* context**
- **Stack \* nodes**
- **Stack \* atts**
- **Stack \* modes**
- **Stack \* fields**

#### 4.1278.1 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`

### 4.1279 XY Struct Reference

#### Data Fields

- `int x`
- `int y`

#### 4.1279.1 Detailed Description

Definition at line 211 of file CursorDraw.c.

The documentation for this struct was generated from the following file:

- `src/lib/ui/CursorDraw.c`

### 4.1280 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_writting_offset`
- `ZPOS64_T number_entry`
- `char * globalcomment`

#### 4.1280.1 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`



## 4.1281 zip\_fileinfo Struct Reference

### Data Fields

- **tm\_zip** **tmz\_date**
- uLong **dosDate**
- uLong **internal\_fa**
- uLong **external\_fa**

### 4.1281.1 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

## 4.1282 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**

### 4.1282.1 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

## 4.1283 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**

#### 4.1283.1 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

### 4.1284 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**

#### 4.1284.1 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

### 4.1285 zone Struct Reference

#### Data Fields

- char \* **name**
- **Point** **center**
- **Point** \* **poly**
- int **n**
- char \* **ssrname**
- void \* **ssr**
- void \* **next**

#### 4.1285.1 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

- \_BrowserNative, 51
- \_CRnodeStruct, 52
- \_FW\_PluginInstance, 52
- \_GLwDrawingAreaClassPart, 53
- \_GLwDrawingAreaClassRec, 53
- \_GLwDrawingAreaRec, 53
- \_NPP, 66
- \_NPByteRange, 63
- \_NPEmbedPrint, 64
- \_NPFullPrint, 64
- \_NPImageExpose, 65
- \_NPNetscapeFuncs, 65
- \_NPPluginFuncs, 67
- \_NPPrint, 67
- \_NPRect, 68
- \_NPSavedData, 68
- \_NPSize, 68
- \_NPStream, 69
- \_NPString, 69
- \_NPVariant, 69
- \_NPWindow, 70
- \_SFColorNative, 71
- \_SFColorRGBANative, 71
- \_SFImageNative, 72
- \_SFNodeNative, 72
- \_SFRotationNative, 72
- \_SFVec2fNative, 73
- \_SFVec3dNative, 73
- \_SFVec3fNative, 73
- \_SFVec4dNative, 74
- \_SFVec4fNative, 74
- \_X3DNode, 75
- \_cd\_list\_t, 51
- \_intX3DEventIn, 63
- \_intX3D\_MFBool, 54
- \_intX3D\_MFColor, 54
- \_intX3D\_MFColorRGBA, 54
- \_intX3D\_MFFloat, 55
- \_intX3D\_MFImage, 55
- \_intX3D\_MFInt32, 55
- \_intX3D\_MFNode, 56
- \_intX3D\_MFRotation, 56
- \_intX3D\_MFString, 56
- \_intX3D\_MFTime, 57
- \_intX3D\_MFVec2d, 57
- \_intX3D\_MFVec2f, 57
- \_intX3D\_MFVec3d, 58
- \_intX3D\_MFVec3f, 58
- \_intX3D\_SFBool, 58
- \_intX3D\_SFColor, 59
- \_intX3D\_SFColorRGBA, 59
- \_intX3D\_SFFloat, 59
- \_intX3D\_SFImage, 60
- \_intX3D\_SFInt32, 60
- \_intX3D\_SFNode, 60
- \_intX3D\_SFRotation, 61
- \_intX3D\_SFString, 61
- \_intX3D\_SFTime, 61
- \_intX3D\_SFVec2d, 62
- \_intX3D\_SFVec2f, 62
- \_intX3D\_SFVec3d, 62
- \_intX3D\_SFVec3f, 63
- \_s\_list\_t, 70
- \_urlRequest, 74
- ActiveRegion, 75
- allocateMenuID
  - nsIPluginManager2, 405
- allowComments
  - cson\_parse\_opt, 144
- anyVrml, 76
- api
  - cson\_value, 147
- Arc, 76
- ArcSdirSorter, 77
- ArcSorter, 78
- ArcTdirSorter, 79
- ArcTessellator, 79
- ArgListType, 80
- Atlas, 80
- AtlasEntry, 80
- AtlasEntrySet, 81
- AtlasFont, 81
- BUTitem, 99
- Backend, 82
- BasePlugin, 83
- BasicCurveEvaluator, 84
- BasicSurfaceEvaluator, 85
- beginWaitCursor
  - nsIPluginManager2, 405
- BezierArc, 86
- bezierPatch, 86
- bezierPatchMesh, 87
- Bin, 87
- bindablestack, 88
- block, 88
- Breakpt, 89
- brotoDefpair, 89

- brotoIS, 90
- brotoRoute, 90
- brouteEnd, 90
- Buffer, 99
- CPlugin, 132
  - CPlugin, 132
- CR\_RegStruct, 133
- CRStruct, 134
- CRjsnameStruct, 133
- CRscriptStruct, 134
- CachedVertex, 100
- CachingEvaluator, 100
- callback
  - JSON\_config, 306
- callback\_ctx
  - JSON\_config, 306
- capacity
  - cson\_buffer, 136
- cbDataExactName, 101
- cbDataRootNameAndRouteDir, 101
- CdIIFreeWRL, 102
- chardata, 103
- chaser\_ptrs, 103
- cleanup
  - cson\_value\_api, 149
- cline, 104
- coded\_block\_pattern\_entry, 104
- colorScheme, 104
- command, 105
- connection\_info\_struct, 106
- consoleLine, 107
- contenttype, 124
- contenttype\_captiontext, 125
- contenttype\_e3dmouse, 125
- contenttype\_layer, 126
- contenttype\_multitouch, 126
- contenttype\_orientation, 126
- contenttype\_quadrant, 127
- contenttype\_scene, 127
- contenttype\_splitter, 127
- contenttype\_statusbar, 128
- contenttype\_stereo\_anaglyph, 128
- contenttype\_stereo\_shutter, 128
- contenttype\_stereo\_sidebyside, 129
- contenttype\_stereo\_updown, 129
- contenttype\_switch, 129
- contenttype\_textpanel, 130
- contenttype\_texturegrid, 131
- CoveAndTiler, 131
- createPluginInstance
  - nsIPlugin, 368
  - nsIPluginOld, 409
- createWidget
  - nsIPluginInstanceOwner, 391
- cson\_array, 135
- cson\_buffer, 136
  - capacity, 136
  - mem, 137
  - timesExpanded, 137
  - used, 137
- cson\_data\_source\_StringSource\_, 138
  - end, 138
  - pos, 138
  - str, 138
- cson\_kv, 139
- cson\_kv\_list, 139
- cson\_object, 140
- cson\_object\_iterator, 141
- cson\_output\_opt, 141
  - escapeForwardSlashes, 142
  - indentation, 142
  - maxDepth, 142
- cson\_parse\_info, 143
- cson\_parse\_opt, 144
  - allowComments, 144
- cson\_parser, 144
- cson\_string, 145
- cson\_value, 146
  - api, 147
  - refcount, 147
  - value, 148
- cson\_value\_api, 148
  - cleanup, 149
- cson\_value\_list, 149
- curfile64\_info, 150
- currayhit, 150
- Curve, 151
- curveEvalMachine, 151
- Curvelist, 152
- DDS\_header, 153
- DOMElement
  - nsIPluginTagInfo, 418
  - nsIPluginTagInfo2, 422
- dampener\_ptrs, 152
- datChnk, 153
- dct\_dc\_size\_entry, 153
- DdsLoadInfo, 154
- deallocateMenuID
  - nsIPluginManager2, 405
- depth
  - JSON\_config, 306
- destroy
  - nsIPluginInstanceOld, 386
- Dict, 155
- DictNode, 155
- directedLine, 156
- DisplayList, 157
- Dlnode, 158
- draw\_call\_params, 159
- duk\_\_bigint, 159
- duk\_\_compile\_raw\_args, 159
- duk\_\_compiler\_stkstate, 160
- duk\_\_decode\_context, 160
- duk\_\_encode\_context, 161
- duk\_\_exp\_limits, 161
- duk\_\_id\_lookup\_result, 161

- duk\_\_numconv\_stringify\_ctx, 162
- duk\_\_objlit\_state, 162
- duk\_\_pcall\_prop\_args, 163
- duk\_\_re\_disjunction\_info, 163
- duk\_\_transform\_context, 163
- duk\_activation, 164
- duk\_bitdecoder\_ctx, 164
- duk\_bitencoder\_ctx, 164
- duk\_breakpoint, 165
- duk\_bufwriter\_ctx, 165
- duk\_catcher, 166
- duk\_compiler\_ctx, 166
- duk\_compiler\_func, 167
- duk\_compiler\_instr, 168
- duk\_double\_union, 168
- duk\_function\_list\_entry, 169
- duk\_harray, 169
- duk\_hbuffer, 169
- duk\_hbuffer\_dynamic, 170
- duk\_hbuffer\_external, 170
- duk\_hbuffer\_fixed, 170
- duk\_hbufobj, 171
- duk\_hcompfunc, 171
- duk\_heap, 172
- duk\_heaphdr, 172
- duk\_heaphdr\_string, 173
- duk\_hnatfunc, 173
- duk\_hobject, 174
- duk\_hstring, 174
- duk\_hstring\_external, 174
- duk\_hthread, 175
- duk\_internal\_thread\_state, 176
- duk\_ispec, 176
- duk\_ivalue, 176
- duk\_jmpbuf, 177
- duk\_json\_dec\_ctx, 177
- duk\_json\_enc\_ctx, 178
- duk\_labelinfo, 178
- duk\_lexer\_codepoint, 179
- duk\_lexer\_ctx, 179
- duk\_lexer\_point, 179
- duk\_ljstate, 180
- duk\_memory\_functions, 180
- duk\_number\_list\_entry, 181
- duk\_propaccessor, 181
- duk\_propdesc, 181
- duk\_propvalue, 182
- duk\_re\_compiler\_ctx, 182
- duk\_re\_matcher\_ctx, 183
- duk\_re\_token, 183
- duk\_strcache, 184
- duk\_strtab\_entry, 184
- duk\_thread\_state, 184
- duk\_time\_components, 185
- duk\_token, 185
- duk\_tval\_unused, 186
- EAI\_Extra\_Data, 186
- EAI\_ListenerStruct, 187
- EAINodeIndexStruct, 191
- EAINodeParams, 192
- ECMAValueStruct, 194
- EdgePair, 195
- end
  - cson\_data\_source\_StringSource\_, 138
- endWaitCursor
  - nsIPluginManager2, 406
- escapeForwardSlashes
  - cson\_output\_opt, 142
- extrusion, 220
- FWBITMAPFILEHEADER, 238
- FWBITMAPINFOHEADER, 239
- FWBITMAPINFO, 238
- FWFunctionSpec, 241
- FWJavaScriptClassLoader
  - vrml::FWJavaScriptClassLoader, 243
- FWPropertySpec, 254
- FWRGBQUAD, 255
- FWSNDMSG, 265
- FWTYPE, 266
- FWVAL, 266
- FX, 267
- FaceCount, 220
- FieldDecl, 222
- file\_in\_zip64\_read\_info\_s, 223
- findProxyForURL
  - nsIPluginHost, 372
  - nsIPluginManager2, 406
- FirstStruct, 223
- Flist, 224
- FlistSorter, 224
- flychord, 225
- fmtChnk, 225
- free
  - JSON\_config, 307
- freeWRLSAI\_cpp::\_SAIParameter, 71
- freeWRLSAI\_cpp::InvalidReadableFieldException, 297
- freeWRLSAI\_cpp::InvalidWritableFieldException, 301
- freeWRLSAI\_cpp::browserNotSharedException, 98
- freeWRLSAI\_cpp::connectionException, 107
- freeWRLSAI\_cpp::disposedException, 157
- freeWRLSAI\_cpp::insufficientCapabilitiesException, 282
- freeWRLSAI\_cpp::invalidAccessTypeException, 284
- freeWRLSAI\_cpp::invalidBrowserException, 284
- freeWRLSAI\_cpp::invalidDocumentException, 285
- freeWRLSAI\_cpp::invalidExecutionContextException, 289
- freeWRLSAI\_cpp::invalidFieldException, 291
- freeWRLSAI\_cpp::invalidImportException, 293
- freeWRLSAI\_cpp::invalidNodeException, 294
- freeWRLSAI\_cpp::invalidOperationTimingException, 296
- freeWRLSAI\_cpp::invalidUrlException, 299
- freeWRLSAI\_cpp::invalidX3DException, 302
- freeWRLSAI\_cpp::noSuchBrowserException, 357
- freeWRLSAI\_cpp::nodeInUseException, 355
- freeWRLSAI\_cpp::nodeUnavailableException, 356

- freeWRLSAI\_cpp::notSupportedException, 358
- freeWRLSAI\_cpp::saiBrowser, 485
- freeWRLSAI\_cpp::saiComponent, 486
- freeWRLSAI\_cpp::saiCustomException, 486
- freeWRLSAI\_cpp::saiException, 487
- freeWRLSAI\_cpp::saiExecutionContext, 488
- freeWRLSAI\_cpp::saiField, 488
- freeWRLSAI\_cpp::saiNode, 489
- freeWRLSAI\_cpp::saiProfileDeclaration, 489
- freeWRLSAI\_cpp::saiProto, 490
- freeWRLSAI\_cpp::saiRoute, 490
- freeWRLSAI\_cpp::saiScene, 491
- freeWRLSAI\_cpp::urlUnavailableException, 561
- freewrl\_params, 226
- ftype, 237
- fw\_MaterialParameters, 238
  
- GLUface, 267
- GLUhalfEdge, 268
- GLUmesh, 268
- GLUnurbs, 268
- GLUtesselator, 269
- GLUvertex, 270
- GLwDrawingAreaCallbackStruct, 271
- GLwDrawingAreaPart, 271
- GUIElement, 275
- GUINamedType, 275
- GUIScreen, 275
- getAttribute
  - nsIPluginTagInfo, 417
  - nsIPluginTagInfoOld, 423
- getAttributes
  - nsIPluginTagInfo, 417
  - nsIPluginTagInfoOld, 424
- GetAuthenticationInfo
  - nsIJVMAuthTools, 366
- getCookie
  - nsICookieStorage, 362
- getMIMEDescription
  - nsIPlugin, 368
  - nsIPluginOld, 410
- getMIMEType
  - nsIPluginInstance, 380
- getParameter
  - nsIPluginTagInfo, 418
  - nsIPluginTagInfo2, 420
- getParameters
  - nsIPluginTagInfo, 418
  - nsIPluginTagInfo2, 422
- GetPluginInstance
  - nsPluginNativeWindow, 429
- getPluginName
  - nsIPluginHost, 372
- getPluginTagForInstance
  - nsIPluginHost, 373
- getProgramPath
  - nsIFileUtilities, 363
- getTempDirPath
  - nsIFileUtilities, 363
  
- GetURLWithHeaders
  - nsIPluginManager, 400
- GetURL
  - nsIPluginHost, 373
  - nsIPluginInstanceOwner, 391
  - nsIPluginManager, 399
- GetValue
  - nsIPluginManager, 401
- getValue
  - nsIPlugin, 369
  - nsIPluginInstance, 380
  - nsIPluginInstanceOld, 387
  - nsIPluginInstancePeer, 393
  - nsIPluginOld, 410
- getWindow
  - nsIPluginInstanceOwner, 392
- GoP, 272
- gridBoundaryChain, 272
- GridTrimVertex, 273
- GridVertex, 274
- gridWrap, 274
- Gridline, 273
  
- handleEvent
  - nsIPluginInstance, 380
  - nsIPluginInstanceOld, 387
- hasAllocatedMenuID
  - nsIPluginManager2, 406
- Hull, 276
  
- IMEXPORT, 280
- iiglobal, 278
- iiglobal::tBindable, 527
- iiglobal::tCParse, 535
- iiglobal::tCParseParser, 536
- iiglobal::tCRoutes, 536
- iiglobal::tCScripts, 536
- iiglobal::tComponent\_CubeMapTexturing, 528
- iiglobal::tComponent\_EnviroSensor, 528
- iiglobal::tComponent\_Followers, 528
- iiglobal::tComponent\_Geometry3D, 529
- iiglobal::tComponent\_Geospatial, 529
- iiglobal::tComponent\_HAnim, 529
- iiglobal::tComponent\_KeyDevice, 530
- iiglobal::tComponent\_Layering, 530
- iiglobal::tComponent\_Layout, 530
- iiglobal::tComponent\_NURBS, 531
- iiglobal::tComponent\_ParticleSystems, 531
- iiglobal::tComponent\_Picking, 531
- iiglobal::tComponent\_ProgrammableShaders, 532
- iiglobal::tComponent\_Rendering, 532
- iiglobal::tComponent\_RigidBodyPhysics, 532
- iiglobal::tComponent\_Shape, 533
- iiglobal::tComponent\_Sound, 533
- iiglobal::tComponent\_Text, 533
- iiglobal::tComponent\_VRML1, 534
- iiglobal::tComponent\_VolumeRendering, 534
- iiglobal::tConsoleMessage, 534
- iiglobal::tCursorDraw, 537

- iiglobal::tEAI\_C\_CommonFunctions, 537
- iiglobal::tEAICore, 538
- iiglobal::tEAIEventsIn, 538
- iiglobal::tEAHelpers, 538
- iiglobal::tFrustum, 540
- iiglobal::tJScript, 541
- iiglobal::tLoadTextures, 542
- iiglobal::tMainloop, 544
- iiglobal::tOpenGL\_Utills, 544
- iiglobal::tPluginSocket, 546
- iiglobal::tProdCon, 546
- iiglobal::tRenderFuncs, 547
- iiglobal::tRenderTextures, 548
- iiglobal::tSensInterps, 551
- iiglobal::tSnapshot, 551
- iiglobal::tStreamPoly, 552
- iiglobal::tTess, 552
- iiglobal::tTextures, 553
- iiglobal::tViewer, 554
- iiglobal::tX3DParser, 554
- iiglobal::tcollision, 527
- iiglobal::tcommon, 527
- iiglobal::tdisplay, 537
- iiglobal::tinternalc, 541
- iiglobal::tjsUtills, 541
- iiglobal::tjsVRMLBrowser, 542
- iiglobal::tjsVRMLClasses, 542
- iiglobal::tpluginUtills, 546
- iiglobal::tresources, 549
- iiglobal::tstatusbar, 552
- iiglobal::tthreads, 553
- indentation
  - cson\_output\_opt, 142
- initialRouteStruct, 281
- initialize
  - nsIPlugin, 369
  - nsIPluginInstance, 381
  - nsIPluginInstanceOld, 388
  - nsIPluginOld, 411
- instantiateDummyJavaPlugin
  - nsIPluginHost, 374
- instantiatePluginForChannel
  - nsIPluginHost, 374
  - nsIPluginHostOld, 377
- intTableIndex, 283
- intersection\_info, 283
- InvalidEventInException
  - vrml::external::exception::InvalidEventInException, 287
- InvalidNodeException
  - vrml::external::exception::InvalidNodeException, 295
- InvalidVrmlException
  - vrml::external::exception::InvalidVrmlException, 300
- ivec2, 304
- ivec4, 304
- JMATRIX, 305
- JSContext
  - nsIPluginInstance, 384
  - nsIPluginInstancePeer2, 397
- JSLoadPropElement, 305
- JSON\_config, 305
  - callback, 306
  - callback\_ctx, 306
  - depth, 306
  - free, 307
  - malloc, 307
- JSON\_parser\_struct, 308
- JSON\_value\_struct, 308
- JSThread
  - nsIPluginInstancePeer2, 397
- JSWindow
  - nsIPluginInstancePeer2, 397
- Jarcloc, 304
- key, 309
- keyHit, 309
- keyval, 309
- Knotspec, 310
- Knotvector, 311
- layout\_scale\_item, 311
- layoutmode, 312
- linkedList\_data\_s, 312
- linkedList\_datablock\_internal\_s, 312
- MIMEType
  - nsIPluginInstancePeer, 395
- macroblock, 313
- malloc
  - JSON\_config, 307
- Mapdesc, 313
- Maplist, 315
- matpropstruct, 315
- maxDepth
  - cson\_output\_opt, 142
- mb\_addr\_inc\_entry, 318
- mb\_type\_entry, 318
- mem
  - cson\_buffer, 137
- Mesher, 319
- mode
  - nsIPluginInstancePeer, 395
- mode\_name, 341
- monoChain, 342
- Monotonizer, 342
- motion\_vectors\_entry, 343
- Multi\_Any, 343
- Multi\_Bool, 343
- Multi\_Color, 344
- Multi\_ColorRGBA, 344
- Multi\_Double, 345
- Multi\_Float, 345
- Multi\_Int32, 345
- Multi\_Matrix3d, 346
- Multi\_Matrix3f, 346

- Multi\_Matrix4d, 347
- Multi\_Matrix4f, 347
- Multi\_Node, 347
- Multi\_Rotation, 348
- Multi\_String, 348
- Multi\_Time, 349
- Multi\_Vec2d, 349
- Multi\_Vec2f, 349
- Multi\_Vec3d, 350
- Multi\_Vec3f, 350
- Multi\_Vec4d, 351
- Multi\_Vec4f, 351
- multiTexParams, 351
- myArgs, 352
- MyVertex, 352
  
- NPCClass, 359
- NPObject, 360
- name\_num, 353
- navmode, 353
- newResponseHeader
  - nsIHTTPHeaderListener, 365
- newStream
  - nsIPluginInstanceOld, 388
  - nsIPluginInstancePeer, 394
- newStreamFromPlugin
  - nsIPluginInstance, 381
- newStreamToPlugin
  - nsIPluginInstance, 382
- newTempFileName
  - nsIFileUtilities, 364
- nodedistance, 355
- notifyStatusChange
  - nsIPluginManager2, 407
- nsByteRange, 360
- nsIAuthenticationInfo, 361
- nsICookieStorage, 361
  - getCookie, 362
  - setCookie, 362
- nsIFileUtilities, 362
  - getProgramPath, 363
  - getTempDirPath, 363
  - newTempFileName, 364
- nsIHTTPHeaderListener, 364
  - newResponseHeader, 365
  - statusLine, 365
- nsIJVMAuthTools, 366
  - GetAuthenticationInfo, 366
  - SetAuthenticationInfo, 367
- nsIPlugin, 367
  - createPluginInstance, 368
  - getMIMEDescription, 368
  - getValue, 369
  - initialize, 369
  - shutdown, 369
- nsIPluginDocument, 370
  - willHandleInstantiation, 370
- nsIPluginHost, 371
  - findProxyForURL, 372
  - getPluginName, 372
  - getPluginTagForInstance, 373
  - GetURL, 373
  - instantiateDummyJavaPlugin, 374
  - instantiatePluginForChannel, 374
  - parsePostBufferToFixHeaders, 374
  - PostURL, 375
  - reloadPlugins, 376
- nsIPluginHostOld, 376
  - instantiatePluginForChannel, 377
- nsIPluginInputStream, 378
- nsIPluginInstance, 378
  - getMimeType, 380
  - getValue, 380
  - handleEvent, 380
  - initialize, 381
  - JSContext, 384
  - newStreamFromPlugin, 381
  - newStreamToPlugin, 382
  - print, 382
  - setWindow, 383
  - showStatus, 383
  - start, 383
  - stop, 384
- nsIPluginInstanceInternal, 384
- nsIPluginInstanceOld, 385
  - destroy, 386
  - getValue, 387
  - handleEvent, 387
  - initialize, 388
  - newStream, 388
  - peer, 390
  - print, 388
  - setWindow, 389
  - start, 389
  - stop, 389
- nsIPluginInstanceOwner, 390
  - createWidget, 391
  - GetURL, 391
  - getWindow, 392
- nsIPluginInstancePeer, 392
  - getValue, 393
  - MIMEType, 395
  - mode, 395
  - newStream, 394
  - setWindowSize, 394
  - showStatus, 394
- nsIPluginInstancePeer2, 396
  - JSContext, 397
  - JSThread, 397
  - JSWindow, 397
- nsIPluginInstancePeer2\_1\_9\_1\_BRANCH, 398
- nsIPluginManager, 399
  - GetURLWithHeaders, 400
  - GetURL, 399
  - GetValue, 401
  - PostURL, 401
  - RegisterPlugin, 402



- reloadPlugins, 403
- UnregisterPlugin, 403
- UserAgent, 403
- nsIPluginManager2, 404
  - allocateMenuID, 405
  - beginWaitCursor, 405
  - deallocateMenuID, 405
  - endWaitCursor, 406
  - findProxyForURL, 406
  - hasAllocatedMenuID, 406
  - notifyStatusChange, 407
  - registerWindow, 407
  - supportsURLProtocol, 408
  - unregisterWindow, 408
- nsIPluginOld, 409
  - createPluginInstance, 409
  - getMIMEDescription, 410
  - getValue, 410
  - initialize, 411
  - shutdown, 411
- nsIPluginStreamInfo, 411
- nsIPluginStreamListener, 412
  - onDataAvailable, 413
  - onFileAvailable, 413
  - onStartBinding, 414
  - onStopBinding, 414
  - streamType, 415
- nsIPluginTag, 415
- nsIPluginTagInfo, 416
  - DOMElement, 418
  - getAttribute, 417
  - getAttributes, 417
  - getParameter, 418
  - getParameters, 418
  - tagType, 419
- nsIPluginTagInfo2, 419
  - DOMElement, 422
  - getParameter, 420
  - getParameters, 422
  - tagType, 422
- nsIPluginTagInfoOld, 423
  - getAttribute, 423
  - getAttributes, 424
- nsIScriptablePlugin, 424
  - scriptableInterface, 425
  - scriptablePeer, 425
- nsIWindowlessPluginInstancePeer, 425
- nsIPluginInstancePeer, 426
- nsPluginEmbedPrint, 426
- nsPluginEvent, 427
- nsPluginFullPrint, 427
- nsPluginLogging, 428
- nsPluginNativeWindow, 428
  - GetPluginInstance, 429
- nsPluginPrint, 430
- nsPluginRect, 430
- nsPluginWindow, 431
- NurbsTessellator, 431
- O\_curve, 433
- O\_nurbscurve, 433
- O\_nurbssurface, 434
- O\_pwlcure, 435
- O\_surface, 435
- O\_trim, 436
- onDataAvailable
  - nsIPluginStreamListener, 413
- onFileAvailable
  - nsIPluginStreamListener, 413
- onStartBinding
  - nsIPluginStreamListener, 414
- onStopBinding
  - nsIPluginStreamListener, 414
- OpenGLCurveEvaluator, 436
- OpenGLSurfaceEvaluator, 438
- opened\_file, 439
- org.web3d.x3d.sai.Browser, 91
- org.web3d.x3d.sai.BrowserEvent, 94
- org.web3d.x3d.sai.BrowserFactoryImpl, 95
- org.web3d.x3d.sai.BrowserInterface, 97
- org.web3d.x3d.sai.BrowserListener, 98
- org.web3d.x3d.sai.BrowserNotSharedException, 99
- org.web3d.x3d.sai.ComponentInfo, 105
- org.web3d.x3d.sai.ConnectionException, 106
- org.web3d.x3d.sai.ExternalBrowser, 219
- org.web3d.x3d.sai.ImportedNodeException, 281
- org.web3d.x3d.sai.InsufficientCapabilitiesException, 282
- org.web3d.x3d.sai.InvalidBrowserException, 285
- org.web3d.x3d.sai.InvalidDocumentException, 286
- org.web3d.x3d.sai.InvalidExecutionContextException, 289
- org.web3d.x3d.sai.InvalidFieldException, 291
- org.web3d.x3d.sai.InvalidFieldValueException, 292
- org.web3d.x3d.sai.InvalidNameException, 293
- org.web3d.x3d.sai.InvalidNodeException, 294
- org.web3d.x3d.sai.InvalidOperationTimingException, 296
- org.web3d.x3d.sai.InvalidProtoException, 297
- org.web3d.x3d.sai.InvalidRouteException, 298
- org.web3d.x3d.sai.InvalidURLErrorException, 299
- org.web3d.x3d.sai.InvalidX3DException, 303
- org.web3d.x3d.sai.MFBool, 319
- org.web3d.x3d.sai.MFColor, 321
- org.web3d.x3d.sai.MFColorRGBA, 322
- org.web3d.x3d.sai.MFDouble, 322
- org.web3d.x3d.sai.MFFloat, 323
- org.web3d.x3d.sai.MFImage, 327
- org.web3d.x3d.sai.MFInt32, 328
- org.web3d.x3d.sai.MFNode, 329
- org.web3d.x3d.sai.MFRotation, 331
- org.web3d.x3d.sai.MFString, 333
- org.web3d.x3d.sai.MFTime, 335
- org.web3d.x3d.sai.MFVec2d, 336
- org.web3d.x3d.sai.MFVec2f, 338
- org.web3d.x3d.sai.MFVec3d, 339
- org.web3d.x3d.sai.MFVec3f, 340

- org.web3d.x3d.sai.MField, 325
- org.web3d.x3d.sai.Matrix, 316
- org.web3d.x3d.sai.Matrix3, 316
- org.web3d.x3d.sai.Matrix4, 317
- org.web3d.x3d.sai.NoSuchBrowserException, 358
- org.web3d.x3d.sai.NodeInUseException, 356
- org.web3d.x3d.sai.NodeUnavailableException, 357
- org.web3d.x3d.sai.NotSupportedException, 359
- org.web3d.x3d.sai.ProfileInfo, 470
- org.web3d.x3d.sai.SFBool, 497
- org.web3d.x3d.sai.SFColor, 499
- org.web3d.x3d.sai.SFColorRGBA, 501
- org.web3d.x3d.sai.SFDouble, 501
- org.web3d.x3d.sai.SFFloat, 503
- org.web3d.x3d.sai.SFImage, 504
- org.web3d.x3d.sai.SFInt32, 505
- org.web3d.x3d.sai.SFNode, 508
- org.web3d.x3d.sai.SFRotation, 510
- org.web3d.x3d.sai.SFString, 511
- org.web3d.x3d.sai.SFTime, 512
- org.web3d.x3d.sai.SFVec2d, 513
- org.web3d.x3d.sai.SFVec2f, 515
- org.web3d.x3d.sai.SFVec3d, 515
- org.web3d.x3d.sai.SFVec3f, 516
- org.web3d.x3d.sai.URLUnavailableException, 560
- org.web3d.x3d.sai.X3DAppearanceChildNode, 813
- org.web3d.x3d.sai.X3DAppearanceNode, 813
- org.web3d.x3d.sai.X3DAudioClipNode, 814
- org.web3d.x3d.sai.X3DBackgroundNode, 814
- org.web3d.x3d.sai.X3DBindableNode, 815
- org.web3d.x3d.sai.X3DBoundedObject, 816
- org.web3d.x3d.sai.X3DChildNode, 816
- org.web3d.x3d.sai.X3DColorNode, 817
- org.web3d.x3d.sai.X3DComponent, 817
- org.web3d.x3d.sai.X3DComposedGeometryNode, 818
- org.web3d.x3d.sai.X3DCoordinateNode, 819
- org.web3d.x3d.sai.X3DDragSensorNode, 819
- org.web3d.x3d.sai.X3DEnvironmentalSensorNode, 820
- org.web3d.x3d.sai.X3DException, 821
- org.web3d.x3d.sai.X3DExecutionContext, 822
- org.web3d.x3d.sai.X3DExternProtoDeclaration, 823
- org.web3d.x3d.sai.X3DField, 823
- org.web3d.x3d.sai.X3DFieldDefinition, 825
- org.web3d.x3d.sai.X3DFieldEvent, 825
- org.web3d.x3d.sai.X3DFieldEventListener, 826
- org.web3d.x3d.sai.X3DFieldTypes, 826
- org.web3d.x3d.sai.X3DFontStyleNode, 827
- org.web3d.x3d.sai.X3DGeometricPropertyNode, 828
- org.web3d.x3d.sai.X3DGeometryNode, 828
- org.web3d.x3d.sai.X3DGroupingNode, 829
- org.web3d.x3d.sai.X3DInfoNode, 829
- org.web3d.x3d.sai.X3DInterpolatorNode, 830
- org.web3d.x3d.sai.X3DKeyDeviceSensorNode, 830
- org.web3d.x3d.sai.X3DLightNode, 831
- org.web3d.x3d.sai.X3DMaterialNode, 832
- org.web3d.x3d.sai.X3DMetadataObject, 832
- org.web3d.x3d.sai.X3DNetworkSensorNode, 833
- org.web3d.x3d.sai.X3DNode, 833
- org.web3d.x3d.sai.X3DNodeTypes, 834
- org.web3d.x3d.sai.X3DNormalNode, 835
- org.web3d.x3d.sai.X3DParametricGeometryNode, 836
- org.web3d.x3d.sai.X3DPerFrameObserverScript, 836
- org.web3d.x3d.sai.X3DPointingDeviceSensorNode, 837
- org.web3d.x3d.sai.X3DProtoDeclaration, 837
- org.web3d.x3d.sai.X3DProtoInstance, 838
- org.web3d.x3d.sai.X3DRoute, 838
- org.web3d.x3d.sai.X3DScene, 839
- org.web3d.x3d.sai.X3DScriptImplementation, 840
- org.web3d.x3d.sai.X3DScriptNode, 840
- org.web3d.x3d.sai.X3DSensorNode, 841
- org.web3d.x3d.sai.X3DSequencerNode, 841
- org.web3d.x3d.sai.X3DShapeNode, 842
- org.web3d.x3d.sai.X3DSoundNode, 842
- org.web3d.x3d.sai.X3DSoundSourceNode, 843
- org.web3d.x3d.sai.X3DTextNode, 843
- org.web3d.x3d.sai.X3DTexture2DNode, 844
- org.web3d.x3d.sai.X3DTextureCoordinateNode, 844
- org.web3d.x3d.sai.X3DTextureNode, 845
- org.web3d.x3d.sai.X3DTextureTransform2DNode, 845
- org.web3d.x3d.sai.X3DTextureTransformNode, 846
- org.web3d.x3d.sai.X3DTimeDependentNode, 847
- org.web3d.x3d.sai.X3DTouchSensorNode, 848
- org.web3d.x3d.sai.X3DTriggerNode, 848
- org.web3d.x3d.sai.X3DUrlObject, 849
- orient\_XYZA, 440
- pBindable, 442
- pCParse, 452
- pCParseParser, 452
- pCRoutes, 453
- pCScripts, 453
- pComponent\_CubeMapTexturing, 444
- pComponent\_EnvironSensor, 444
- pComponent\_Followers, 445
- pComponent\_Geometry3D, 445
- pComponent\_Geospatial, 445
- pComponent\_HAnim, 446
- pComponent\_KeyDevice, 446
- pComponent\_Layering, 446
- pComponent\_Layout, 447
- pComponent\_NURBS, 447
- pComponent\_ParticleSystems, 447
- pComponent\_Picking, 448
- pComponent\_ProgrammableShaders, 448
- pComponent\_Rendering, 448
- pComponent\_RigidBodyPhysics, 449
- pComponent\_Shape, 449
- pComponent\_Sound, 449
- pComponent\_Text, 450
- pComponent\_VolumeRendering, 451
- pConsoleMessage, 451
- pCursorDraw, 454
- pEAI\_C\_CommonFunctions, 454
- pEAICore, 455
- pEAIEventsIn, 455
- pEAISensors, 455
- pFrustum, 456

- pJScript, 457
- pLoadTextures, 459
- pMainloop, 459
- pOpenGL\_Utils, 464
- pPluginSocket, 465
- pProdCon, 465
- PQhandleElem, 466
- PQnode, 466
- pRasterFont, 466
- pRenderFuncs, 467
- pRenderTextures, 468
- PSStruct, 474
- pSensInterps, 473
- pSnapshot, 473
- pStreamPoly, 475
- pTess, 475
- pTextures, 475
- pViewer, 476
- pX3DParser, 477
- parsePostBufferToFixHeaders
  - nsIPluginHost, 374
- particle, 440
- Patch, 440
- Patchlist, 441
- Patchspec, 442
- pcollision, 443
- pcommon, 443
- pdisplay, 454
- pedal\_state, 456
- peer
  - nsIPluginInstanceOld, 390
- pict, 456
- pict\_image, 457
- pjsUtils, 458
- pjsVRMLBrowser, 458
- pjsVRMLClasses, 458
- Point, 460
- point\_XYZ3, 461
- point\_XYZ, 461
- pointer2pointer, 461
- polygon, 462
- polyrep\_combiner\_data, 462
- Pool, 462
- PooledObj, 463
- pos
  - cson\_data\_source\_StringSource\_, 138
- PostURL
  - nsIPluginHost, 375
  - nsIPluginManager, 401
- ppluginUtils, 465
- presources, 468
- primStream, 469
- print
  - nsIPluginInstance, 382
  - nsIPluginInstanceOld, 388
- PriorityQ, 469
- profile\_entry, 470
- proftablestruct, 471
- Property, 471
- ProtoDefinition, 472
- ProtoFieldDecl, 472
- Pspec, 473
- pstatusbar, 474
- PwlArc, 476
- quaternion, 478
- Quilt, 478
- Quiltspec, 479
- rb1, 479
- rectBlock, 480
- rectBlockArray, 480
- refcount
  - cson\_value, 147
- reflexChain, 481
- RegisterPlugin
  - nsIPluginManager, 402
- registerWindow
  - nsIPluginManager2, 407
- reloadPlugins
  - nsIPluginHost, 376
  - nsIPluginManager, 403
- Renderhints, 481
- resource\_item, 482
- row32, 482
- s\_renderer\_capabilities\_t, 483
- s\_shader\_capabilities, 484
- sCollisionGeometry, 492
- sCollisionInfo, 492
- SFColor, 499
- SFColorRGBA, 500
- SFMatrix3d, 506
- SFMatrix3f, 506
- SFMatrix4d, 507
- SFMatrix4f, 507
- SFRotation, 509
- SFVec2d, 513
- SFVec2f, 513
- SFVec3d, 516
- SFVec3f, 517
- SFVec4d, 518
- SFVec4f, 518
- sFallInfo, 497
- SNDFILE, 521
- sNavInfo, 521
- SSR\_request, 523
- sai.BrowserFactory, 95
- sai.BrowserGlobals, 96
- sai.eai.EAIAsyncMessage, 187
- sai.eai.EAIAsyncQueue, 188
- sai.eai.EAIAsyncThread, 189
- sai.eai.EAIMessage, 191
- sai.eai.EAIInThread, 190
- sai.eai.EAIoutQueue, 192
- sai.eai.EAIoutThread, 193
- sai.eai.UnsupportedFieldException, 556

- sai.eai.VField, 564
- sai.eai.VIP, 572
- sai.eai.VMFCColor, 573
- sai.eai.VMFFloat, 575
- sai.eai.VMFInt32, 576
- sai.eai.VMFRotation, 577
- sai.eai.VMFString, 579
- sai.eai.VMFVec2f, 580
- sai.eai.VMFVec3f, 581
- sai.eai.VRMLObject, 583
- sai.eai.VRMLObjectObserver, 585
- sai.eai.VSFBBool, 586
- sai.eai.VSFCColor, 587
- sai.eai.VSFFloat, 589
- sai.eai.VSFImage, 590
- sai.eai.VSFInt32, 590
- sai.eai.VSFRotation, 592
- sai.eai.VSFString, 593
- sai.eai.VSFTTime, 594
- sai.eai.VSFVec2f, 595
- sai.eai.VSFVec3f, 597
- sai.FWComponentInfo, 239
- sai.FWExternProtoDeclaration, 240
- sai.FWMFCColor, 244
- sai.FWMFCColorRGBA, 244
- sai.FWMFDouble, 245
- sai.FWMFFloat, 246
- sai.FWMFInt32, 247
- sai.FWMFNode, 247
- sai.FWMFRotation, 248
- sai.FWMFString, 249
- sai.FWMFVec2d, 250
- sai.FWMFVec2f, 250
- sai.FWMFVec3d, 251
- sai.FWMFVec3f, 252
- sai.FWProfInfo, 253
- sai.FWProfileInfo, 253
- sai.FWProtoDeclaration, 254
- sai.FWProtoInstance, 255
- sai.FWRoute, 256
- sai.FWSFBool, 256
- sai.FWSFCColor, 257
- sai.FWSFCColorRGBA, 258
- sai.FWSFDouble, 258
- sai.FWSFFloat, 259
- sai.FWSFImage, 259
- sai.FWSFInt32, 260
- sai.FWSFNode, 261
- sai.FWSFRotation, 261
- sai.FWSFString, 262
- sai.FWSFTTime, 262
- sai.FWSFVec2d, 263
- sai.FWSFVec2f, 264
- sai.FWSFVec3d, 264
- sai.FWSFVec3f, 265
- sai.FreeWRLBrowser, 226
- sai.FreeWRLBrowserInfo, 228
- sai.FreeWRLComponent, 229
- sai.FreeWRLField, 229
- sai.FreeWRLFieldDefinition, 231
- sai.FreeWRLFieldTypes, 232
- sai.FreeWRLMField, 232
- sai.FreeWRLNode, 234
- sai.FreeWRLNodeTypes, 234
- sai.FreeWRLRendererInfo, 235
- sai.FreeWRLScene, 236
- sampledLine, 491
- screenextdata, 492
- ScriptFieldDecl, 495
- ScriptFieldInstanceInfo, 495
- ScriptParamList, 496
- scriptableInterface
  - nsIScriptablePlugin, 425
- scriptablePeer
  - nsIScriptablePlugin, 425
- ScriptablePluginObjectBase, 494
- SensStruct, 496
- SetAuthenticationInfo
  - nsIJVMAuthTools, 367
- setCookie
  - nsICookieStorage, 362
- setWindow
  - nsIPluginInstance, 383
  - nsIPluginInstanceOld, 389
- setWindowSize
  - nsIPluginInstancePeer, 394
- Shader\_Script, 518
- shaderTableEntry, 519
- shaderflagsstruct, 519
- showStatus
  - nsIPluginInstance, 383
  - nsIPluginInstancePeer, 394
- shutdown
  - nsIPlugin, 369
  - nsIPluginOld, 411
- slice, 519
- Slicer, 520
- Sorter, 521
- Splinespec, 522
- ssr, 523
- stage, 524
- start
  - nsIPluginInstance, 383
  - nsIPluginInstanceOld, 389
- statusLine
  - nsIHTTPHeaderListener, 365
- stop
  - nsIPluginInstance, 384
  - nsIPluginInstanceOld, 389
- StoredVertex, 524
- str
  - cson\_data\_source\_StringSource\_, 138
- streamType
  - nsIPluginStreamListener, 415
- Subdivider, 525
- supportsURLProtocol

- nsIPluginManager2, 408
- surfEvalMachine, 525
- sweepRange, 526
- tagType
  - nsIPluginTagInfo, 419
  - nsIPluginTagInfo2, 422
- targetwindow, 526
- tcontenttype, 535
- text\_combiner\_data, 539
- textureTableIndexStruct, 539
- textureVertexInfo, 540
- timesExpanded
  - cson\_buffer, 137
- tm\_unz\_s, 543
- tm\_zip\_s, 543
- Touch, 545
- treeNode, 547
- trenderstate, 548
- TrimRegion, 550
- TrimVertex, 550
- TrimVertexPool, 551
- Trimline, 549
- Uarray, 554
- un1, 555
- Uni\_String, 555
- UnregisterPlugin
  - nsIPluginManager, 403
- unregisterWindow
  - nsIPluginManager2, 408
- unz64\_file\_pos\_s, 557
- unz64\_s, 557
- unz\_file\_info64\_internal\_s, 558
- unz\_file\_info64\_s, 558
- unz\_file\_info\_s, 559
- unz\_file\_pos\_s, 559
- unz\_global\_info64\_s, 559
- unz\_global\_info\_s, 560
- used
  - cson\_buffer, 137
- usehit, 561
- UserAgent
  - nsIPluginManager, 403
- VRMLLexer, 582
- VRMLParser, 585
- value
  - cson\_value, 148
- Varray, 562
- vec2, 562
- vec4, 562
- Vector, 563
- vertexArray, 563
- vid\_stream, 567
- viewer, 568
- viewer\_examine, 570
- viewer\_fly, 570
- viewer\_inplane, 570
- viewer\_walk, 571
- viewer\_yyz, 571
- void3, 582
- vrml.BaseNode, 83
- vrml.Browser, 92
- vrml.ConstField, 108
- vrml.ConstMField, 110
- vrml.Event, 195
- vrml.external.Browser, 92
- vrml.external.BrowserGlobals, 96
- vrml.external.BrowserInterface, 97
- vrml.external.exception.InvalidEventInException, 287
- vrml.external.exception.InvalidEventOutException, 288
- vrml.external.exception.InvalidNodeException, 295
- vrml.external.exception.InvalidVrmlException, 300
- vrml.external.field.EventIn, 196
- vrml.external.field.EventInMFColor, 197
- vrml.external.field.EventInMFFloat, 197
- vrml.external.field.EventInMFInt32, 198
- vrml.external.field.EventInMFNode, 198
- vrml.external.field.EventInMFRotation, 199
- vrml.external.field.EventInMFString, 199
- vrml.external.field.EventInMFVec2f, 200
- vrml.external.field.EventInMFVec3f, 200
- vrml.external.field.EventInSFBool, 201
- vrml.external.field.EventInSFColor, 201
- vrml.external.field.EventInSFFloat, 202
- vrml.external.field.EventInSFImage, 202
- vrml.external.field.EventInSFInt32, 203
- vrml.external.field.EventInSFNode, 203
- vrml.external.field.EventInSFRotation, 204
- vrml.external.field.EventInSFString, 204
- vrml.external.field.EventInSFTime, 205
- vrml.external.field.EventInSFVec2f, 205
- vrml.external.field.EventInSFVec3f, 206
- vrml.external.field.EventOut, 206
- vrml.external.field.EventOutMFColor, 208
- vrml.external.field.EventOutMFFloat, 208
- vrml.external.field.EventOutMFInt32, 210
- vrml.external.field.EventOutMFNode, 210
- vrml.external.field.EventOutMFRotation, 211
- vrml.external.field.EventOutMFString, 211
- vrml.external.field.EventOutMFVec2f, 212
- vrml.external.field.EventOutMFVec3f, 213
- vrml.external.field.EventOutMField, 209
- vrml.external.field.EventOutObserver, 213
- vrml.external.field.EventOutSFBool, 214
- vrml.external.field.EventOutSFColor, 214
- vrml.external.field.EventOutSFFloat, 215
- vrml.external.field.EventOutSFImage, 215
- vrml.external.field.EventOutSFInt32, 216
- vrml.external.field.EventOutSFNode, 216
- vrml.external.field.EventOutSFRotation, 217
- vrml.external.field.EventOutSFString, 217
- vrml.external.field.EventOutSFTime, 218
- vrml.external.field.EventOutSFVec2f, 218
- vrml.external.field.EventOutSFVec3f, 219
- vrml.external.field.FieldTypes, 222

- vrml.external.FreeWRLEAI.EAIAsyncMessage, 187
- vrml.external.FreeWRLEAI.EAIAsyncQueue, 188
- vrml.external.FreeWRLEAI.EAIAsyncThread, 189
- vrml.external.FreeWRLEAI.EAIMessage, 191
- vrml.external.FreeWRLEAI.EAInThread, 190
- vrml.external.FreeWRLEAI.EAOutQueue, 193
- vrml.external.FreeWRLEAI.EAOutThread, 194
- vrml.external.FreeWRLEAI.UnsupportedFieldType↔  
Exception, 556
- vrml.external.FreeWRLEAI.VField, 565
- vrml.external.FreeWRLEAI.VIP, 572
- vrml.external.FreeWRLEAI.VMFCColor, 574
- vrml.external.FreeWRLEAI.VMFFloat, 575
- vrml.external.FreeWRLEAI.VMFIInt32, 576
- vrml.external.FreeWRLEAI.VMFRotation, 578
- vrml.external.FreeWRLEAI.VMFString, 578
- vrml.external.FreeWRLEAI.VMFVec2f, 579
- vrml.external.FreeWRLEAI.VMFVec3f, 581
- vrml.external.FreeWRLEAI.VRMLObject, 584
- vrml.external.FreeWRLEAI.VRMLObjectObserver, 584
- vrml.external.FreeWRLEAI.VSFBBool, 586
- vrml.external.FreeWRLEAI.VSFCColor, 587
- vrml.external.FreeWRLEAI.VSFFloat, 588
- vrml.external.FreeWRLEAI.VSFImage, 589
- vrml.external.FreeWRLEAI.VSFIInt32, 591
- vrml.external.FreeWRLEAI.VSFRotation, 592
- vrml.external.FreeWRLEAI.VSFString, 593
- vrml.external.FreeWRLEAI.VSFTime, 595
- vrml.external.FreeWRLEAI.VSFVec2f, 596
- vrml.external.FreeWRLEAI.VSFVec3f, 596
- vrml.external.IBrowser, 276
- vrml.external.Node, 354
- vrml.FWCreateField, 240
- vrml.FWHelper, 241
- vrml.FWJavaScript, 242
- vrml.FWJavaScriptBinding, 242
- vrml.FWJavaScriptClassLoader, 243
- vrml.Field, 221
- vrml.field.ConstMFCColor, 108
- vrml.field.ConstMFFloat, 109
- vrml.field.ConstMFIInt32, 111
- vrml.field.ConstMFNode, 112
- vrml.field.ConstMFRotation, 113
- vrml.field.ConstMFString, 114
- vrml.field.ConstMFTIME, 114
- vrml.field.ConstMFVec2f, 115
- vrml.field.ConstMFVec3f, 116
- vrml.field.ConstSFBool, 117
- vrml.field.ConstSFColor, 117
- vrml.field.ConstSFFloat, 118
- vrml.field.ConstSFImage, 119
- vrml.field.ConstSFIInt32, 120
- vrml.field.ConstSFNode, 120
- vrml.field.ConstSFRotation, 121
- vrml.field.ConstSFString, 122
- vrml.field.ConstSFTime, 122
- vrml.field.ConstSFVec2f, 123
- vrml.field.ConstSFVec3f, 124
- vrml.field.MFCColor, 320
- vrml.field.MFFloat, 324
- vrml.field.MFIInt32, 328
- vrml.field.MFNode, 330
- vrml.field.MFRotation, 332
- vrml.field.MFString, 333
- vrml.field.MFTIME, 334
- vrml.field.MFVec2f, 337
- vrml.field.MFVec3f, 339
- vrml.field.SFBool, 498
- vrml.field.SFCColor, 500
- vrml.field.SFFloat, 502
- vrml.field.SFImage, 503
- vrml.field.SFIInt32, 505
- vrml.field.SFNode, 507
- vrml.field.SFRotation, 509
- vrml.field.SFString, 510
- vrml.field.SFTIME, 511
- vrml.field.SFVec2f, 514
- vrml.field.SFVec3f, 517
- vrml.InvalidEventInException, 286
- vrml.InvalidEventOutException, 288
- vrml.InvalidExposedFieldException, 290
- vrml.InvalidFieldChangeException, 290
- vrml.InvalidFieldException, 292
- vrml.InvalidRouteException, 298
- vrml.InvalidVRMLSyntaxException, 301
- vrml.InvalidX3DSyntaxException, 303
- vrml.MField, 326
- vrml.node.Node, 353
- vrml.node.Script, 493
- vrml::FWJavaScriptClassLoader  
FWJavaScriptClassLoader, 243
- vrml::external::exception::InvalidEventInException  
InvalidEventInException, 287
- vrml::external::exception::InvalidNodeException  
InvalidNodeException, 295
- vrml::external::exception::InvalidVrmlException  
InvalidVrmlException, 300
- WEB3DNATIVE, 598
- walk\_cbdata, 598
- willHandleInstantiation  
nsIPluginDocument, 370
- X3D\_Ancor, 599
- X3D\_Appearance, 600
- X3D\_Arc2D, 600
- X3D\_ArcClose2D, 601
- X3D\_AudioClip, 602
- X3D\_BackdropBackground, 603
- X3D\_Background, 603
- X3D\_BallJoint, 604
- X3D\_Billboard, 605
- X3D\_BlendedVolumeStyle, 606
- X3D\_BooleanFilter, 607
- X3D\_BooleanSequencer, 607
- X3D\_BooleanToggle, 608
- X3D\_BooleanTrigger, 608

X3D\_BoundaryEnhancementVolumeStyle, 609  
X3D\_BoundedPhysicsModel, 610  
X3D\_Box, 610  
X3D\_CADAssembly, 611  
X3D\_CADFace, 612  
X3D\_CADLayer, 612  
X3D\_CADPart, 613  
X3D\_CalibratedCameraSensor, 614  
X3D\_CartoonVolumeStyle, 614  
X3D\_Circle2D, 615  
X3D\_ClipPlane, 615  
X3D\_CollidableOffset, 616  
X3D\_CollidableShape, 617  
X3D\_Collision, 617  
X3D\_CollisionCollection, 618  
X3D\_CollisionSensor, 619  
X3D\_CollisionSpace, 620  
X3D\_Color, 620  
X3D\_ColorChaser, 621  
X3D\_ColorDamper, 622  
X3D\_ColorInterpolator, 623  
X3D\_ColorRGBA, 623  
X3D\_ComposedCubeMapTexture, 624  
X3D\_ComposedShader, 625  
X3D\_ComposedTexture3D, 625  
X3D\_ComposedVolumeStyle, 626  
X3D\_CompositeVolumeStyle, 627  
X3D\_Cone, 627  
X3D\_ConeEmitter, 628  
X3D\_Contact, 629  
X3D\_Contour2D, 630  
X3D\_ContourPolyline2D, 630  
X3D\_Coordinate, 631  
X3D\_CoordinateChaser, 631  
X3D\_CoordinateDamper, 632  
X3D\_CoordinateDouble, 633  
X3D\_CoordinateInterpolator, 634  
X3D\_CoordinateInterpolator2D, 634  
X3D\_Cylinder, 635  
X3D\_CylinderSensor, 636  
X3D\_DISEntityManager, 637  
X3D\_DISEntityTypeMapping, 638  
X3D\_DirectionalLight, 637  
X3D\_Disk2D, 639  
X3D\_DoubleAxisHingeJoint, 640  
X3D\_EaseInEaseOut, 641  
X3D\_EdgeEnhancementVolumeStyle, 642  
X3D\_Effect, 642  
X3D\_EffectPart, 643  
X3D\_ElevationGrid, 644  
X3D\_EspduTransform, 645  
X3D\_ExplosionEmitter, 647  
X3D\_Extrusion, 648  
X3D\_FillProperties, 649  
X3D\_FloatVertexAttribute, 649  
X3D\_Fog, 650  
X3D\_FogCoordinate, 651  
X3D\_FontStyle, 651  
X3D\_ForcePhysicsModel, 652  
X3D\_GeneratedCubeMapTexture, 653  
X3D\_GeoCoordinate, 653  
X3D\_GeoElevationGrid, 654  
X3D\_GeoLOD, 656  
X3D\_GeoLocation, 655  
X3D\_GeoMetadata, 657  
X3D\_GeoOrigin, 657  
X3D\_GeoPositionInterpolator, 658  
X3D\_GeoProximitySensor, 659  
X3D\_GeoTouchSensor, 660  
X3D\_GeoTransform, 661  
X3D\_GeoViewpoint, 662  
X3D\_Group, 663  
X3D\_HAnimDisplacer, 663  
X3D\_HAnimHumanoid, 664  
X3D\_HAnimJoint, 665  
X3D\_HAnimSegment, 666  
X3D\_HAnimSite, 667  
X3D\_ImageBackdropBackground, 668  
X3D\_ImageCubeMapTexture, 668  
X3D\_ImageTexture, 669  
X3D\_ImageTexture3D, 670  
X3D\_IndexedFaceSet, 670  
X3D\_IndexedLineSet, 671  
X3D\_IndexedQuadSet, 672  
X3D\_IndexedTriangleFanSet, 673  
X3D\_IndexedTriangleSet, 674  
X3D\_IndexedTriangleStripSet, 674  
X3D\_Inline, 675  
X3D\_IntegerSequencer, 676  
X3D\_IntegerTrigger, 677  
X3D\_IsoSurfaceVolumeData, 678  
X3D\_KeySensor, 678  
X3D\_LOD, 687  
X3D\_Layer, 679  
X3D\_LayerSet, 680  
X3D\_Layout, 681  
X3D\_LayoutGroup, 681  
X3D\_LayoutLayer, 682  
X3D\_LinePickSensor, 683  
X3D\_LineProperties, 684  
X3D\_LineSensor, 684  
X3D\_LineSet, 685  
X3D\_LoadSensor, 686  
X3D\_LocalFog, 687  
X3D\_Material, 688  
X3D\_Matrix3VertexAttribute, 689  
X3D\_Matrix4VertexAttribute, 689  
X3D\_MetadataBoolean, 690  
X3D\_MetadataDouble, 691  
X3D\_MetadataFloat, 691  
X3D\_MetadataInteger, 692  
X3D\_MetadataMFBool, 693  
X3D\_MetadataMFColor, 693  
X3D\_MetadataMFColorRGBA, 694  
X3D\_MetadataMFDouble, 695  
X3D\_MetadataMFFloat, 695

X3D\_MetadataMFIInt32, 696  
X3D\_MetadataMFMatrix3d, 697  
X3D\_MetadataMFMatrix3f, 697  
X3D\_MetadataMFMatrix4d, 698  
X3D\_MetadataMFMatrix4f, 699  
X3D\_MetadataMFNode, 699  
X3D\_MetadataMFRotation, 700  
X3D\_MetadataMFString, 701  
X3D\_MetadataMFTime, 701  
X3D\_MetadataMFVec2d, 702  
X3D\_MetadataMFVec2f, 703  
X3D\_MetadataMFVec3d, 703  
X3D\_MetadataMFVec3f, 704  
X3D\_MetadataMFVec4d, 705  
X3D\_MetadataMFVec4f, 705  
X3D\_MetadataSFBool, 707  
X3D\_MetadataSFColor, 707  
X3D\_MetadataSFColorRGBA, 708  
X3D\_MetadataSFDouble, 709  
X3D\_MetadataSFFloat, 709  
X3D\_MetadataSFImage, 710  
X3D\_MetadataSFInt32, 711  
X3D\_MetadataSFMMatrix3d, 711  
X3D\_MetadataSFMMatrix3f, 712  
X3D\_MetadataSFMMatrix4d, 713  
X3D\_MetadataSFMMatrix4f, 713  
X3D\_MetadataSFNode, 714  
X3D\_MetadataSFRotation, 715  
X3D\_MetadataSFString, 715  
X3D\_MetadataSFTime, 716  
X3D\_MetadataSFVec2d, 717  
X3D\_MetadataSFVec2f, 717  
X3D\_MetadataSFVec3d, 718  
X3D\_MetadataSFVec3f, 719  
X3D\_MetadataSFVec4d, 719  
X3D\_MetadataSFVec4f, 720  
X3D\_MetadataSet, 706  
X3D\_MetadataString, 721  
X3D\_MotorJoint, 721  
X3D\_MovieTexture, 723  
X3D\_MultiTexture, 724  
X3D\_MultiTextureCoordinate, 724  
X3D\_MultiTextureTransform, 725  
X3D\_NavigationInfo, 725  
X3D\_Node, 726  
X3D\_Normal, 727  
X3D\_NormalInterpolator, 727  
X3D\_NurbsCurve, 728  
X3D\_NurbsCurve2D, 729  
X3D\_NurbsOrientationInterpolator, 729  
X3D\_NurbsPatchSurface, 730  
X3D\_NurbsPositionInterpolator, 731  
X3D\_NurbsSet, 732  
X3D\_NurbsSurfaceInterpolator, 732  
X3D\_NurbsSweptSurface, 733  
X3D\_NurbsSwungSurface, 734  
X3D\_NurbsTextureCoordinate, 735  
X3D\_NurbsTrimmedSurface, 735  
X3D\_OSC\_Sensor, 740  
X3D\_OpacityMapVolumeStyle, 736  
X3D\_OrientationChaser, 737  
X3D\_OrientationDamper, 738  
X3D\_OrientationInterpolator, 739  
X3D\_OrthoViewpoint, 739  
X3D\_PackagedShader, 741  
X3D\_ParticleSystem, 742  
X3D\_PickableGroup, 743  
X3D\_PixelTexture, 744  
X3D\_PixelTexture3D, 744  
X3D\_PlaneSensor, 745  
X3D\_PointEmitter, 746  
X3D\_PointLight, 747  
X3D\_PointPickSensor, 747  
X3D\_PointSet, 748  
X3D\_PolyRep, 751  
X3D\_Polyline2D, 749  
X3D\_PolylineEmitter, 750  
X3D\_Polypoint2D, 750  
X3D\_PositionChaser, 752  
X3D\_PositionChaser2D, 753  
X3D\_PositionDamper, 754  
X3D\_PositionDamper2D, 755  
X3D\_PositionInterpolator, 756  
X3D\_PositionInterpolator2D, 756  
X3D\_PrimitivePickSensor, 757  
X3D\_ProgramShader, 758  
X3D\_ProjectionVolumeStyle, 758  
X3D\_Proto, 759  
X3D\_ProximitySensor, 760  
X3D\_QuadSet, 761  
X3D\_ReceiverPdu, 761  
X3D\_Rectangle2D, 763  
X3D\_RigidBody, 763  
X3D\_RigidBodyCollection, 764  
X3D\_ScalarChaser, 765  
X3D\_ScalarDamper, 766  
X3D\_ScalarInterpolator, 767  
X3D\_ScreenFontStyle, 768  
X3D\_ScreenGroup, 768  
X3D\_Script, 769  
X3D\_SegmentedVolumeData, 770  
X3D\_ShadedVolumeStyle, 770  
X3D\_ShaderPart, 771  
X3D\_ShaderProgram, 772  
X3D\_Shape, 772  
X3D\_SignalPdu, 773  
X3D\_SilhouetteEnhancementVolumeStyle, 774  
X3D\_SingleAxisHingeJoint, 775  
X3D\_SliderJoint, 776  
X3D\_Sound, 777  
X3D\_Sphere, 777  
X3D\_SphereSensor, 778  
X3D\_SplinePositionInterpolator, 779  
X3D\_SplinePositionInterpolator2D, 780  
X3D\_SplineScalarInterpolator, 780  
X3D\_SpotLight, 781



X3D\_SquadOrientationInterpolator, 782  
X3D\_StaticGroup, 783  
X3D\_StringSensor, 783  
X3D\_SurfaceEmitter, 784  
X3D\_Switch, 785  
X3D\_Teapot, 786  
X3D\_TexCoordChaser2D, 786  
X3D\_TexCoordDamper2D, 787  
X3D\_Text, 788  
X3D\_TextureBackground, 789  
X3D\_TextureCoordinate, 790  
X3D\_TextureCoordinate3D, 790  
X3D\_TextureCoordinate4D, 791  
X3D\_TextureCoordinateGenerator, 791  
X3D\_TextureProperties, 792  
X3D\_TextureTransform, 793  
X3D\_TextureTransform3D, 793  
X3D\_TextureTransformMatrix3D, 794  
X3D\_TimeSensor, 794  
X3D\_TimeTrigger, 795  
X3D\_ToneMappedVolumeStyle, 796  
X3D\_TouchSensor, 797  
X3D\_TrackingSensor, 797  
X3D\_Transform, 798  
X3D\_TransformSensor, 799  
X3D\_TransmitterPdu, 800  
X3D\_TriangleFanSet, 801  
X3D\_TriangleSet, 802  
X3D\_TriangleSet2D, 803  
X3D\_TriangleStripSet, 803  
X3D\_TwoSidedMaterial, 804  
X3D\_UniversalJoint, 805  
X3D\_Viewpoint, 806  
X3D\_ViewpointGroup, 807  
X3D\_Viewport, 807  
X3D\_Virt, 808  
X3D\_VisibilitySensor, 809  
X3D\_VolumeData, 809  
X3D\_VolumeEmitter, 810  
X3D\_VolumePickSensor, 811  
X3D\_WindPhysicsModel, 812  
X3D\_WorldInfo, 812  
xml\_user\_data, 849  
XY, 850  
  
zip64\_internal, 850  
zip\_fileinfo, 851  
zlib\_filefunc64\_32\_def\_s, 851  
zlib\_filefunc64\_def\_s, 851  
zlib\_filefunc\_def\_s, 852  
zone, 852