

FreeWRL/FreeX3D

3.0.0

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# 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

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## 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**
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- NPN\_RetainObjectProcPtr **retainobject**
- NPN\_ReleaseObjectProcPtr **releaseobject**
- NPN\_InvokeProcPtr **invoke**
- NPN\_InvokeDefaultProcPtr **invokeDefault**
- NPN\_EvaluateProcPtr **evaluate**
- NPN\_GetPropertyProcPtr **getproperty**
- NPN\_SetPropertyProcPtr **setproperty**
- NPN\_RemovePropertyProcPtr **removeproperty**
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- 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

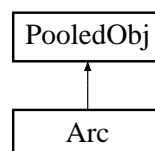
Definition at line 55 of file CParseGeneral.h.

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

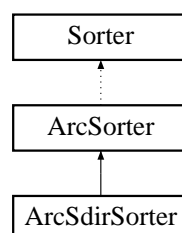
Definition at line 55 of file arc.h.

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

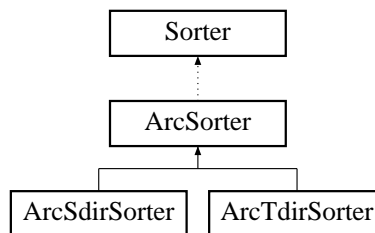
Definition at line 58 of file arcsorter.h.

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**
- char \* **texture**
- int **bytesperpixel**
- **ivec2** **size**
- int **rowheight**
- **ivec2** **pen**

### 4.74.1 Detailed Description

Definition at line 2217 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 2185 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 2358 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 2454 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

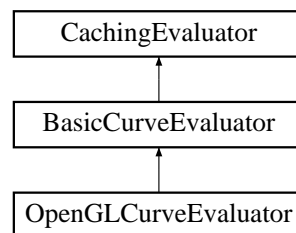
Definition at line 62 of file BasePlugin.h.

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

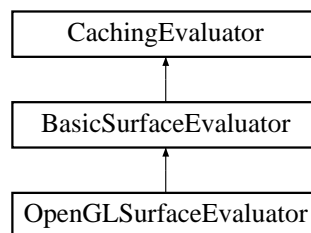
Definition at line 43 of file basiccrveval.h.

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

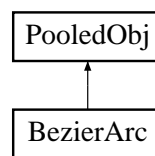
Definition at line 43 of file basicsurfeval.h.

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

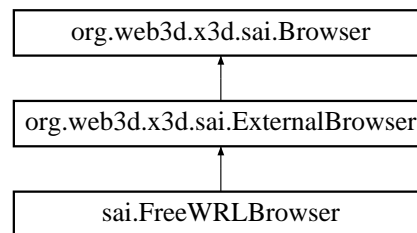
Definition at line 62 of file CRoutes.h.

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

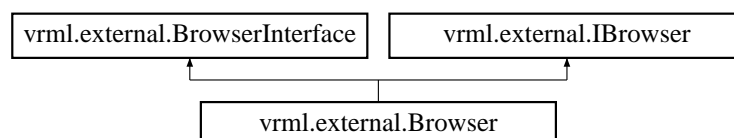
Definition at line 4 of file Browser.java.

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 IllegalArgumentExcep↵
- void **deleteRoute** ( **Node** fromNode, String fromEventOut, **Node** toNode, String toEventIn) throws IllegalArgumentExcep↵
- 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

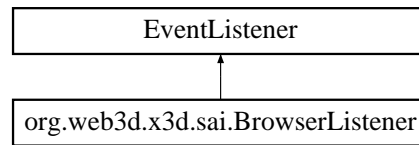
Definition at line 8 of file BrowserInterface.java.

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.

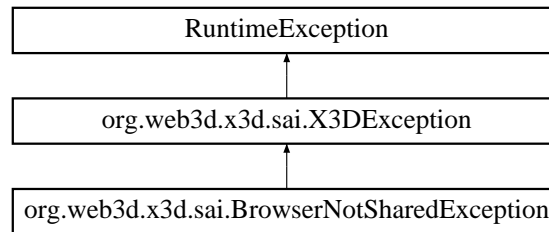
The documentation for this class was generated from the following file:

- 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 807 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

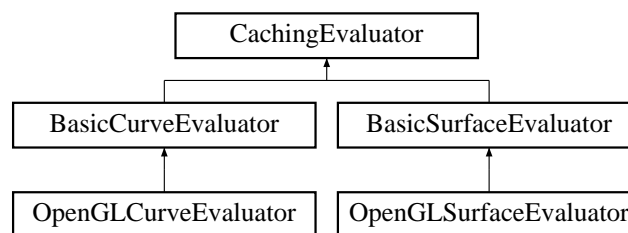
Definition at line 54 of file tess.h.

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 5124 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 5166 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\_ptrs 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 687 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.

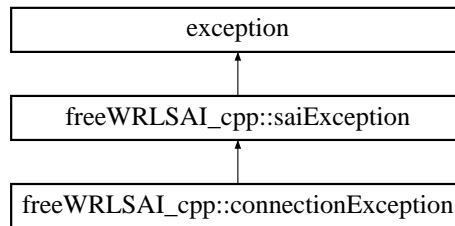
The documentation for this class was generated from the following file:

- 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

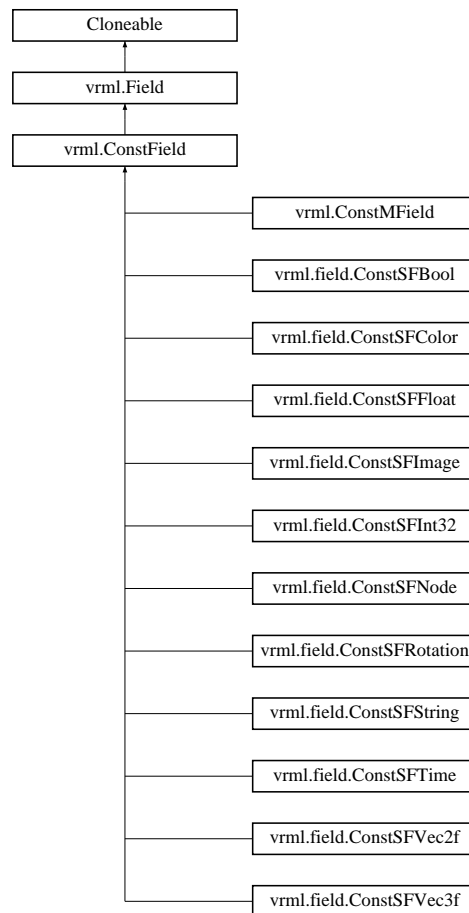
Definition at line 800 of file MainLoop.c.

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

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

### Additional Inherited Members

#### 4.126.1 Detailed Description

Definition at line 10 of file `ConstMFCOLOR.java`.

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

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

## 4.127 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

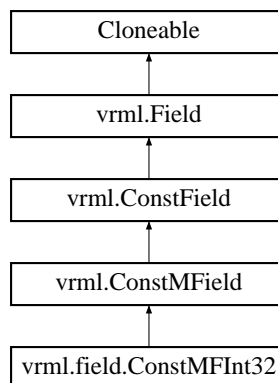
Definition at line 4 of file ConstMField.java.

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

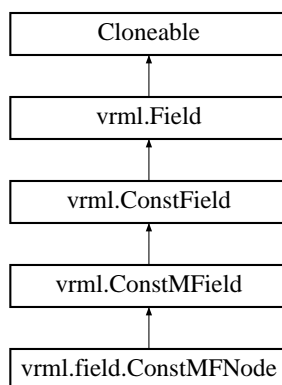
Definition at line 10 of file ConstMFInt32.java.

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

- src/java/vrml/field/ConstMFInt32.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

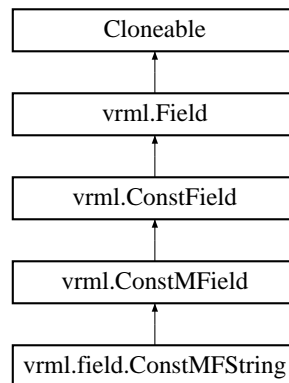
Definition at line 10 of file ConstMFRotation.java.

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

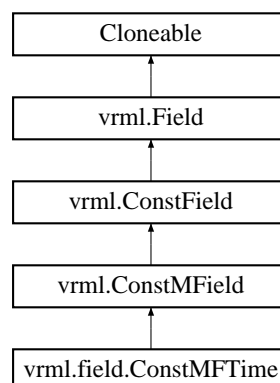
Definition at line 10 of file ConstMFString.java.

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

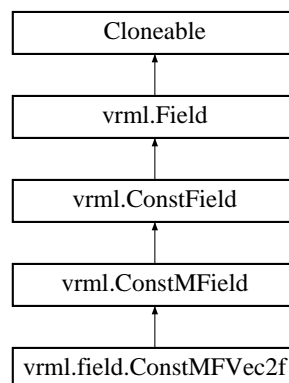
Definition at line 10 of file ConstMFTIME.java.

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

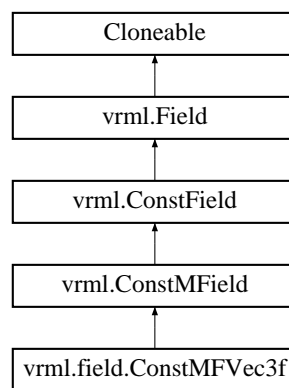
Definition at line 10 of file ConstMFVec2f.java.

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

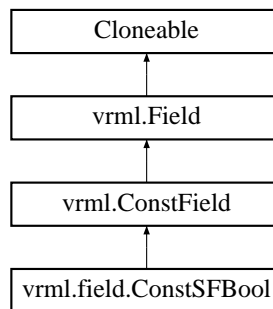
Definition at line 10 of file ConstMFVec3f.java.

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

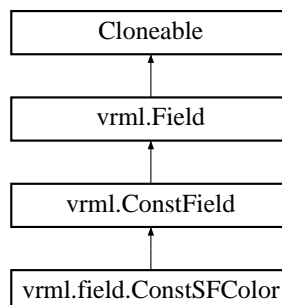
Definition at line 10 of file ConstSFBool.java.

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

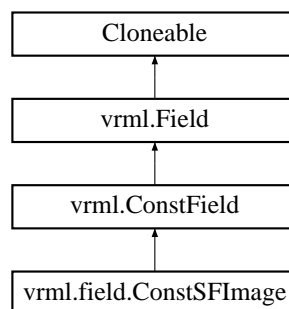
Definition at line 10 of file ConstSFFloat.java.

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

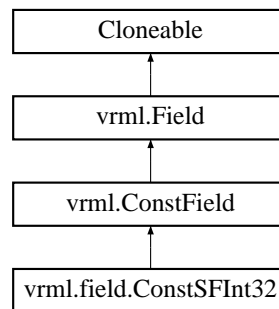
Definition at line 10 of file ConstSfImage.java.

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

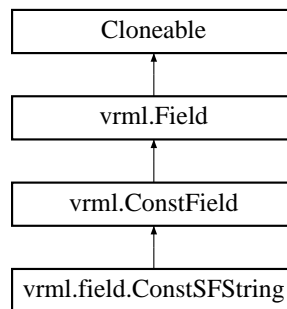
Definition at line 10 of file ConstSFRotation.java.

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

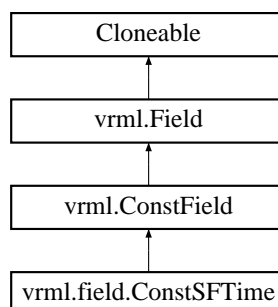
Definition at line 10 of file ConstSFString.java.

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

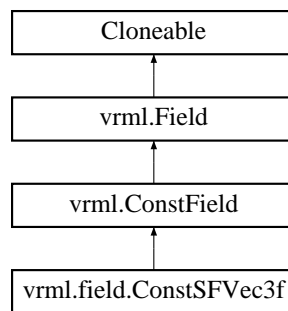
Definition at line 10 of file ConstSFVec2f.java.

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 452 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 725 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 1400 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 1265 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 1325 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 2695 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 1509 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 498 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 2101 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 543 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 1790 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 1991 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

- **contenttype t1**

#### 4.159.1 Detailed Description

Definition at line 1639 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

- **contenttype t1**

#### 4.160.1 Detailed Description

Definition at line 1883 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

- **contenttype t1**
- int **whichCase**
- int \* **whichPtr**

#### 4.161.1 Detailed Description

Definition at line 641 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 812 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 2322 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 **sccdir**
- int **extra**

## 4.166.1 Detailed Description

Definition at line 185 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**
- int **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**
- ulInt **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\_ptr 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 474 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 513 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\_2slines** ( **directedLine** \*v1, **directedLine** \*v2, **directedLine** \*\*ret\_p1, **directedLine** \*\*ret\_p2, **directedLine** \*list)
- Int **samePolygon** ( **directedLine** \*v1, **directedLine** \*v2)
- void **setRootBit** ()
- void **resetRootBit** ()
- **directedLine** \* **findRoot** ()
- void **rootLinkSet** ( **directedLine** \*r)
- **directedLine** \* **rootLinkFindRoot** ()
- **directedLine** \* **deleteChain** ( **directedLine** \*begin, **directedLine** \*end)

### 4.197.1 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

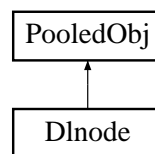
Definition at line 96 of file SAlexception.h.

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** \*\* strs

### 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\_ListenerStruct Struct Reference

### Data Fields

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

### 4.265.1 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



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

### Data Fields

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

### 4.266.1 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

## 4.267 sai.eai.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/sai/eai/EAIAsyncMessage.java

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

### Public Member Functions

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

### 4.268.1 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`

## 4.269 `sai.eai.EAIAsyncQueue` Class Reference

### Public Member Functions

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

### 4.269.1 Detailed Description

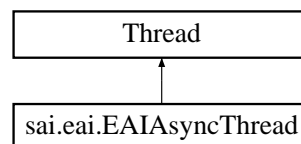
Definition at line 20 of file `EAIAsyncQueue.java`.

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

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

## 4.270 `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** ()

### 4.270.1 Detailed Description

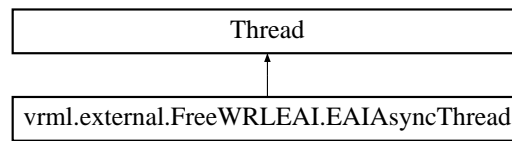
Definition at line 36 of file `EAIAsyncThread.java`.

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

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

## 4.271 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** ()

#### 4.271.1 Detailed Description

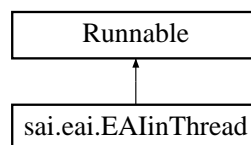
Definition at line 34 of file `EAIAsyncThread.java`.

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

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

## 4.272 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** ()

#### 4.272.1 Detailed Description

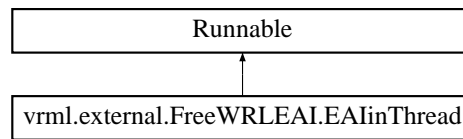
Definition at line 12 of file `EAlinThread.java`.

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

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

## 4.273 vrml.external.FreeWRLEAI.EAInThread Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.EAInThread:



### Public Member Functions

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

#### 4.273.1 Detailed Description

Definition at line 13 of file EAInThread.java.

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

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

## 4.274 sai.eai.EAImessage Class Reference

### Public Member Functions

- **EAImessage** (String thismsg)

### Data Fields

- String **mmm**
- **EAImessage** prev
- **EAImessage** next

#### 4.274.1 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

## 4.275 vrml.external.FreeWRLEAI.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/vrml/external/FreeWRLEAI/EAIMessage.java

## 4.276 EAINodeIndexStruct Struct Reference

### Data Fields

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

### 4.276.1 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

## 4.277 EAINodeParams Struct Reference

### Data Fields

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

#### 4.277.1 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

### 4.278 sai.eai.EAloutQueue Class Reference

#### Public Member Functions

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

#### 4.278.1 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

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

#### Public Member Functions

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

#### 4.279.1 Detailed Description

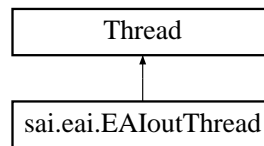
Definition at line 21 of file EAloutQueue.java.

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

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

## 4.280 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** ()

#### 4.280.1 Detailed Description

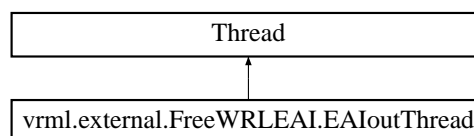
Definition at line 33 of file EAloutThread.java.

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

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

## 4.281 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** ()

#### 4.281.1 Detailed Description

Definition at line 33 of file EAloutThread.java.

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

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

## 4.282 ECMAValueStruct Struct Reference

### Data Fields

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

### 4.282.1 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

## 4.283 EdgePair Struct Reference

### Data Fields

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

### 4.283.1 Detailed Description

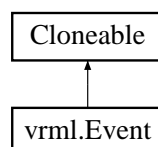
Definition at line 59 of file mesh.c.

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

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

## 4.284 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** ()

### 4.284.1 Detailed Description

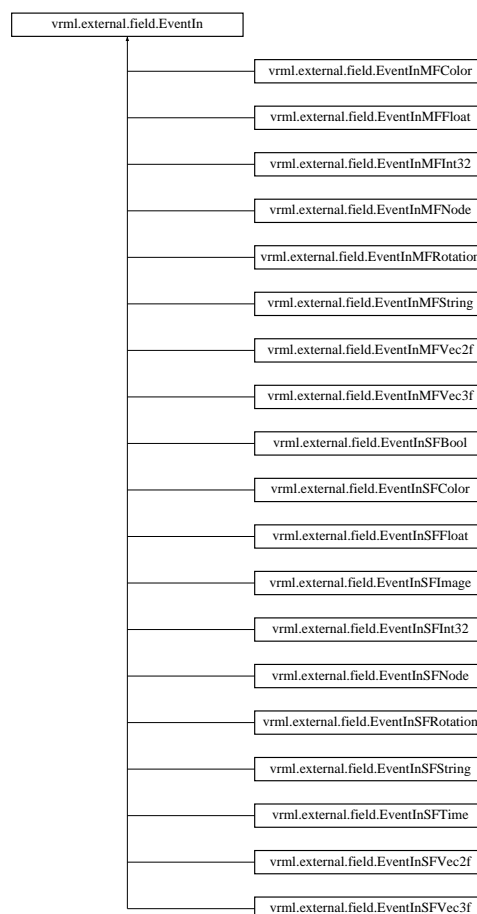
Definition at line 4 of file Event.java.

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

- src/java/vrml/Event.java

## 4.285 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**

### 4.285.1 Detailed Description

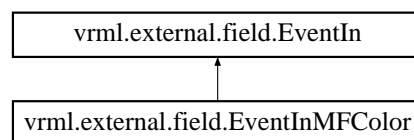
Definition at line 5 of file EventIn.java.

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

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

## 4.286 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

### 4.286.1 Detailed Description

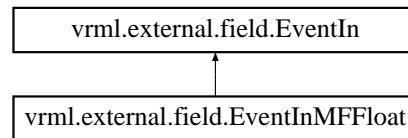
Definition at line 6 of file EventInMFColor.java.

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

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

## 4.287 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

#### 4.287.1 Detailed Description

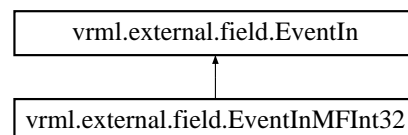
Definition at line 6 of file EventInMFFloat.java.

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

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

## 4.288 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

#### 4.288.1 Detailed Description

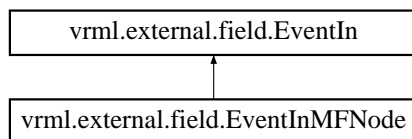
Definition at line 6 of file EventInMFInt32.java.

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

- src/java/vrml/external/field/EventInMFInt32.java

## 4.289 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

#### 4.289.1 Detailed Description

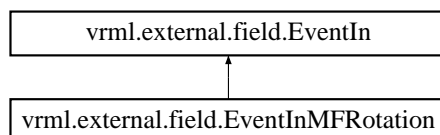
Definition at line 6 of file EventInMFNode.java.

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

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

## 4.290 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

#### 4.290.1 Detailed Description

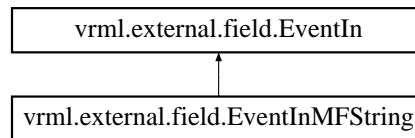
Definition at line 6 of file EventInMFRotation.java.

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

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

## 4.291 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

#### 4.291.1 Detailed Description

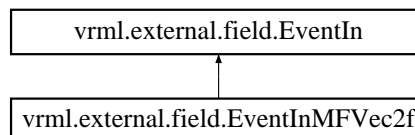
Definition at line 5 of file EventInMFString.java.

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

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

## 4.292 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

#### 4.292.1 Detailed Description

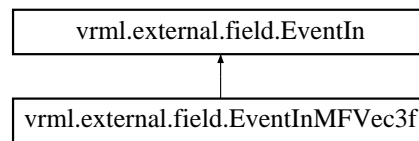
Definition at line 6 of file EventInMFVec2f.java.

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

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

## 4.293 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

#### 4.293.1 Detailed Description

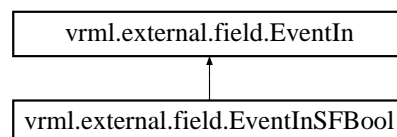
Definition at line 6 of file `EventInMFVec3f.java`.

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

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

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

Inheritance diagram for vrml.external.field.EventInSFBool:



### Public Member Functions

- void **setValue** (boolean value)

### Additional Inherited Members

#### 4.294.1 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`

## 4.295 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

#### 4.295.1 Detailed Description

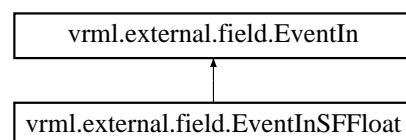
Definition at line 5 of file EventInSFCOLOR.java.

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

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

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

Inheritance diagram for vrml.external.field.EventInSFFloat:



### Public Member Functions

- void **setValue** (float value)

### Additional Inherited Members

#### 4.296.1 Detailed Description

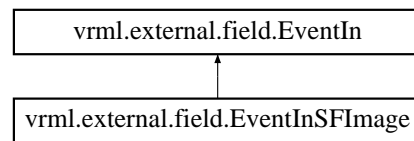
Definition at line 5 of file EventInSFFloat.java.

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

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

## 4.297 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

#### 4.297.1 Detailed Description

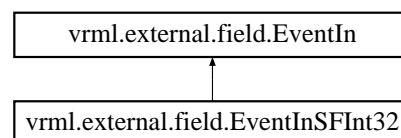
Definition at line 7 of file EventInSFImage.java.

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

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

## 4.298 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

#### 4.298.1 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



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

Inheritance diagram for vrml.external.field.EventInSFNode:



### Public Member Functions

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

### Additional Inherited Members

#### 4.299.1 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

## 4.300 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

#### 4.300.1 Detailed Description

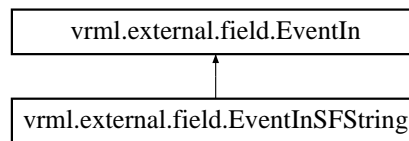
Definition at line 5 of file EventInSFRotation.java.

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

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

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

Inheritance diagram for vrml.external.field.EventInSFString:



### Public Member Functions

- void **setValue** (String value)

### Additional Inherited Members

#### 4.301.1 Detailed Description

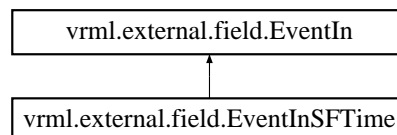
Definition at line 6 of file EventInSFString.java.

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

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

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

Inheritance diagram for vrml.external.field.EventInSFTIME:



### Public Member Functions

- void **setValue** (double value)

### Additional Inherited Members

#### 4.302.1 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

## 4.303 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

#### 4.303.1 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

## 4.304 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

#### 4.304.1 Detailed Description

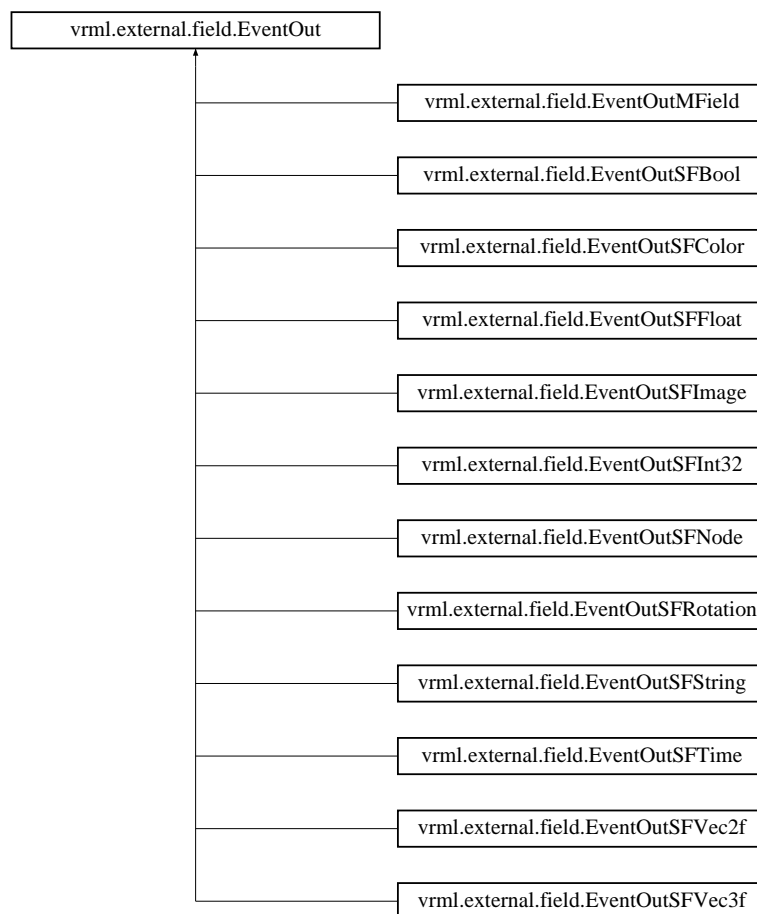
Definition at line 5 of file EventInSFVec3f.java.

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

- src/java/vrml/external/field/EventInSFVec3f.java

## 4.305 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

### 4.305.1 Detailed Description

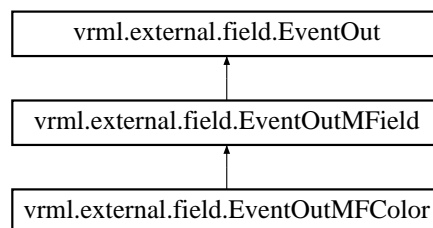
Definition at line 6 of file EventOut.java.

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

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

## 4.306 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

### 4.306.1 Detailed Description

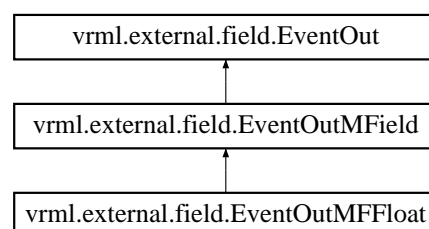
Definition at line 8 of file EventOutMFCOLOR.java.

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

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

## 4.307 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

### 4.307.1 Detailed Description

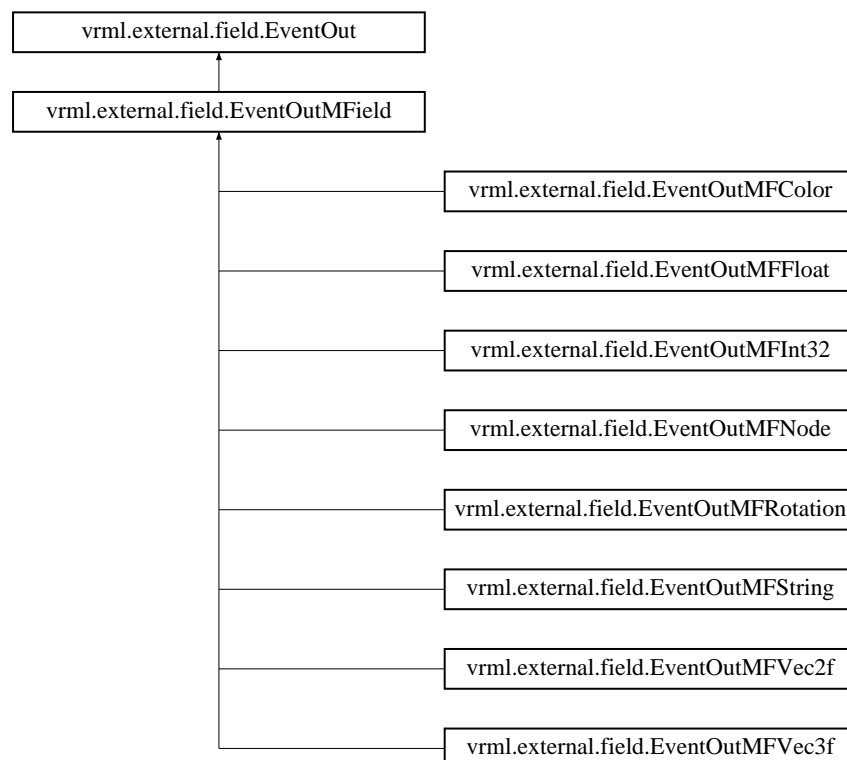
Definition at line 8 of file EventOutMFFloat.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutMField:



## Public Member Functions

- int **getSize** ()

## Additional Inherited Members

### 4.308.1 Detailed Description

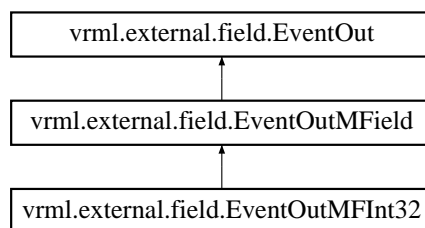
Definition at line 7 of file EventOutMField.java.

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

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

## 4.309 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

### 4.309.1 Detailed Description

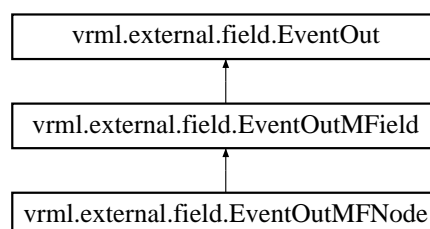
Definition at line 8 of file EventOutMFieldInt32.java.

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

- src/java/vrml/external/field/EventOutMFieldInt32.java

## 4.310 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

### 4.310.1 Detailed Description

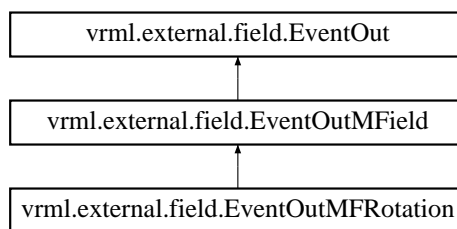
Definition at line 8 of file EventOutMFNode.java.

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

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

## 4.311 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

### 4.311.1 Detailed Description

Definition at line 8 of file EventOutMFRotation.java.

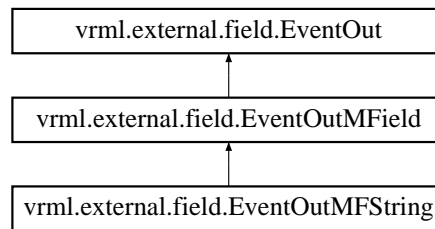
The documentation for this class was generated from the following file:

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



## 4.312 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

#### 4.312.1 Detailed Description

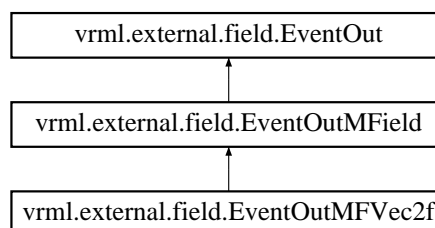
Definition at line 7 of file EventOutMFString.java.

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

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

## 4.313 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

### 4.313.1 Detailed Description

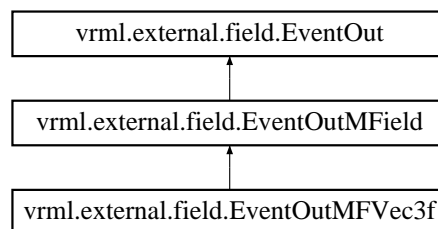
Definition at line 8 of file EventOutMFVec2f.java.

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

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

## 4.314 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

### 4.314.1 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

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

## Public Member Functions

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

### 4.315.1 Detailed Description

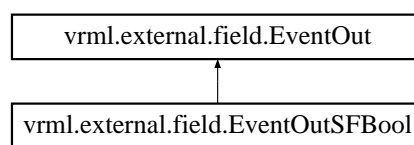
Definition at line 8 of file EventOutObserver.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFBool:



### Public Member Functions

- boolean **getValue** ()

### Additional Inherited Members

### 4.316.1 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

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

Inheritance diagram for vrml.external.field.EventOutSFColor:



### Public Member Functions

- float [] **getValue** ()

## Additional Inherited Members

### 4.317.1 Detailed Description

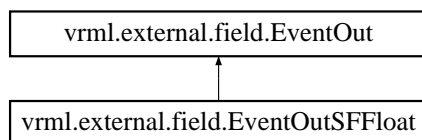
Definition at line 7 of file EventOutSFColor.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFFloat:



## Public Member Functions

- float **getValue** ()

## Additional Inherited Members

### 4.318.1 Detailed Description

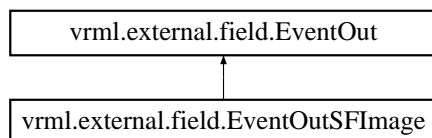
Definition at line 7 of file EventOutSFFloat.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFImage:



## Public Member Functions

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

## Additional Inherited Members

### 4.319.1 Detailed Description

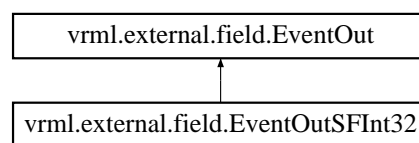
Definition at line 7 of file EventOutSFImage.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFInt32:



## Public Member Functions

- int **getValue** ()

## Additional Inherited Members

### 4.320.1 Detailed Description

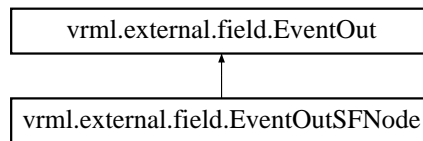
Definition at line 7 of file EventOutSFInt32.java.

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

- src/java/vrml/external/field/EventOutSFInt32.java

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

Inheritance diagram for vrml.external.field.EventOutSFNode:



### Public Member Functions

- **Node** `getValue ()`

### Additional Inherited Members

#### 4.321.1 Detailed Description

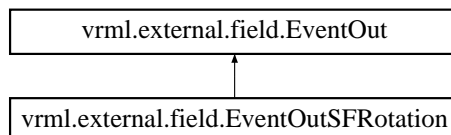
Definition at line 8 of file EventOutSFNode.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFRotation:



### Public Member Functions

- float [] **getValue ()**

### Additional Inherited Members

#### 4.322.1 Detailed Description

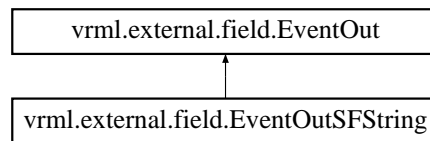
Definition at line 6 of file EventOutSFRotation.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFString:



### Public Member Functions

- String **getValue** ()

### Additional Inherited Members

#### 4.323.1 Detailed Description

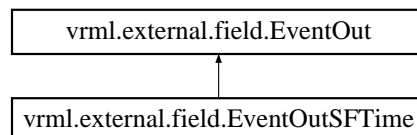
Definition at line 7 of file EventOutSFString.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFTIME:



### Public Member Functions

- double **getValue** ()

### Additional Inherited Members

#### 4.324.1 Detailed Description

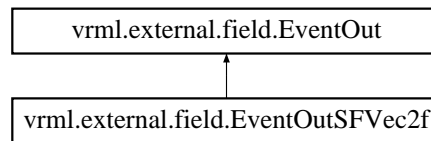
Definition at line 7 of file EventOutSFTIME.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFVec2f:



### Public Member Functions

- float [] **getValue** ()

### Additional Inherited Members

#### 4.325.1 Detailed Description

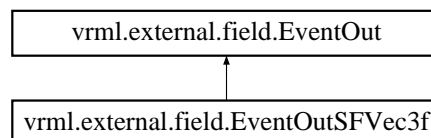
Definition at line 6 of file EventOutSFVec2f.java.

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

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

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

Inheritance diagram for vrml.external.field.EventOutSFVec3f:



### Public Member Functions

- float [] **getValue** ()

### Additional Inherited Members

#### 4.326.1 Detailed Description

Definition at line 6 of file EventOutSFVec3f.java.

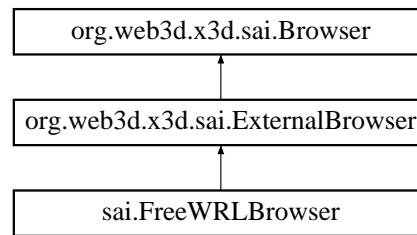
The documentation for this class was generated from the following file:

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



## 4.327 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

#### 4.327.1 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

## 4.328 extrusion Struct Reference

### Data Fields

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

#### 4.328.1 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

## 4.329 FaceCount Struct Reference

### Data Fields

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

### 4.329.1 Detailed Description

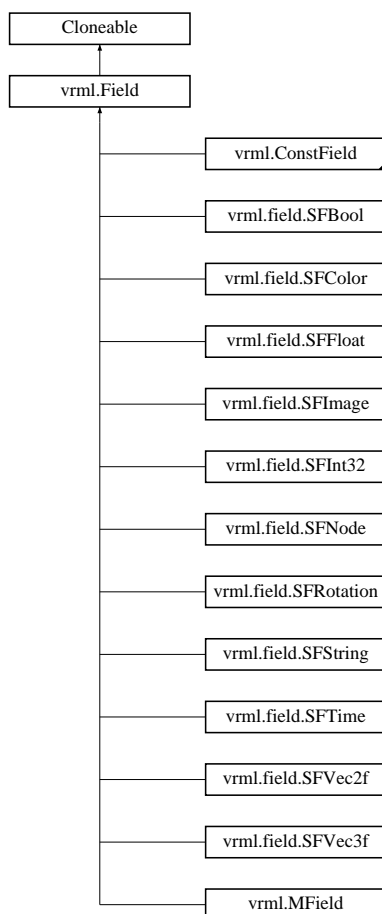
Definition at line 49 of file render.c.

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

- src/libtess/render.c

## 4.330 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** ()

### 4.330.1 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

## 4.331 FieldDecl Struct Reference

### Data Fields

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

### 4.331.1 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

## 4.332 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

### 4.332.1 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

## 4.333 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**

#### 4.333.1 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

### 4.334 FirstStruct Struct Reference

#### Data Fields

- void \* **tonode**
- void(\* **interpptr**)(void \*)

#### 4.334.1 Detailed Description

- we count times through the scenegraph; helps to break routing loops `/** Routing table */` Structure table `/** EAI needs the extra parameter, so we put it globally when a RegisteredListener is clicked. */`

Definition at line 174 of file CRoutes.c.

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

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

### 4.335 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

### 4.335.1 Detailed Description

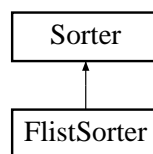
Definition at line 42 of file flist.h.

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

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

## 4.336 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)

### 4.336.1 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

## 4.337 flychord Struct Reference

### Data Fields

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

### 4.337.1 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

## 4.338 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**

### 4.338.1 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

## 4.339 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**

### 4.339.1 Detailed Description

Initialization.

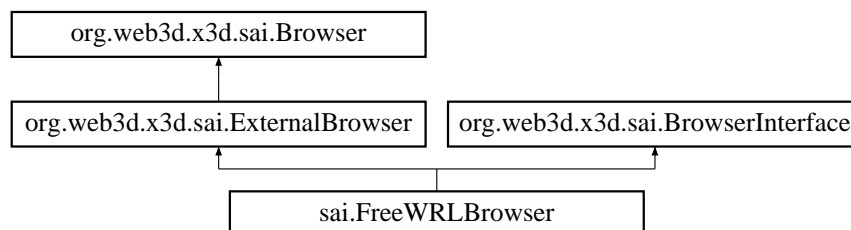
Definition at line 71 of file libFreeWRL.h.

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

- src/lib/libFreeWRL.h

### 4.340 sai.FreeWRLBrowser Class Reference

Inheritance diagram for sai.FreeWRLBrowser:



#### Public Member Functions

- int **get\_Browser\_EVtype** (int event)
- **X3DFieldEventListener** **get\_Browser\_EVObserver** (int eventno)
- void **Browser\_RL\_Async\_send** (String EVentreply, int eventno)
- **FreeWRLBrowser** (Applet pApplet, int portnum)
- **FreeWRLBrowser** (Applet pApplet)
- void **checkValid** ()
- String **getName** () throws InvalidBrowserException, ConnectionException
- String **getVersion** () throws InvalidBrowserException, ConnectionException
- float **getCurrentSpeed** () throws InvalidBrowserException, ConnectionException
- float **getCurrentFrameRate** () throws InvalidBrowserException, ConnectionException
- void **replaceWorld** ( X3DScene passedscene) throws InvalidBrowserException, ConnectionException
- void **setDescription** (String des) throws InvalidBrowserException, ConnectionException
- **X3DScene** **createX3DFromString** (String str) throws InvalidBrowserException, InvalidX3DException, ConnectionException, NotSupportedException
- **X3DNode** **createNodeFromString** (String str)
- **X3DScene** **createX3DFromStream** (InputStream is) throws InvalidBrowserException, InvalidX3DException, ConnectionException, NotSupportedException, IOException
- **X3DScene** **createX3DFromURL** (String[] url) throws InvalidBrowserException, InvalidX3DException, ConnectionException, IOException
- Map **getRenderingProperties** () throws InvalidBrowserException, ConnectionException
- Map **getBrowserProperties** () throws InvalidBrowserException, ConnectionException
- void **nextViewpoint** () throws InvalidBrowserException, ConnectionException
- void **previousViewpoint** () throws InvalidBrowserException, ConnectionException
- void **firstViewpoint** () throws InvalidBrowserException, ConnectionException
- void **lastViewpoint** () throws InvalidBrowserException, ConnectionException
- void **print** (Object obj) throws InvalidBrowserException, ConnectionException



- void **println** (Object obj) throws InvalidBrowserException, ConnectionException
- String **addRoute** ( **FreeWRLNode** fromNode, String fromEventOut, **FreeWRLNode** toNode, String toEventIn) throws IllegalArgumentException
- String **deleteRoute** ( **FreeWRLNode** fromNode, String fromEventOut, **FreeWRLNode** toNode, String toEventIn) throws IllegalArgumentException
- void **beginUpdate** ()
- void **endUpdate** ()
- void **initialize** ()
- void **shutdown** ()
- **X3DNode** **getNode** (String nodeName) throws NodeUnavailableException
- void **close** ()
- void **dispose** ()
- void **addBrowserListener** ( **BrowserListener** listener) throws InvalidBrowserException, ConnectionException
- void **removeBrowserListener** ( **BrowserListener** listener) throws InvalidBrowserException, ConnectionException
- void **browserEvent** (int type)
- **X3DScene** **currentScene** ()
- **ProfileInfo** **getProfile** (String name) throws ConnectionException, InvalidBrowserException, NotSupportedException
- **ProfileInfo** [] **getSupportedProfiles** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo** [] **getSupportedComponents** () throws InvalidBrowserException, ConnectionException
- **ComponentInfo** **getComponent** (String name, int level) throws InvalidBrowserException, NotSupportedException, ConnectionException
- **X3DExecutionContext** **getExecutionContext** () throws InvalidBrowserException, ConnectionException
- **X3DScene** **createScene** ( **ProfileInfo** profile, **ComponentInfo** [] components) throws InvalidBrowserException, ConnectionException
- void **loadURL** (String[] url, Map parameters) throws InvalidBrowserException, InvalidURLException, ConnectionException
- String **getDescription** () throws InvalidBrowserException, ConnectionException
- void **stopRender** ()
- void **pauseRender** ()
- **X3DScene** **importDocument** (Node element) throws InvalidBrowserException, InvalidDocumentException, NotSupportedException, ConnectionException

### Static Public Member Functions

- static void **SendChildEvent** (String parent, String offset, String fieldName, String child)
- static void **newSendEvent** ( **FreeWRLField** field, String value)
- static String **sendGlobalCommand** (String command)
- static String **SendEventOut** (String nodeptr, String offset, String datasize, String datatype, String command)
- static void **RegisterListener** ( **X3DFieldEventListener** f, Object userData, String nodeptr, String offset, String datatype, String datasize, int EventType)
- static void **unRegisterListener** ( **X3DFieldEventListener** f, String nodeptr, String offset, String datatype, String datasize, int EventType)

### Static Protected Member Functions

- static String **SendEventType** (String nodeName, String ptr, String fieldName, String direction)
- static synchronized String **getVRMLreply** (int queryno)

### 4.340.1 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

## 4.341 sai.FreeWRLBrowserInfo Class Reference

### Static Public Member Functions

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

### 4.341.1 Detailed Description

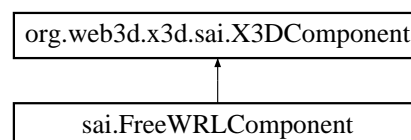
Definition at line 5 of file FreeWRLBrowserInfo.java.

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

- src/java/sai/FreeWRLBrowserInfo.java

## 4.342 sai.FreeWRLComponent Class Reference

Inheritance diagram for sai.FreeWRLComponent:



### Public Member Functions

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

### 4.342.1 Detailed Description

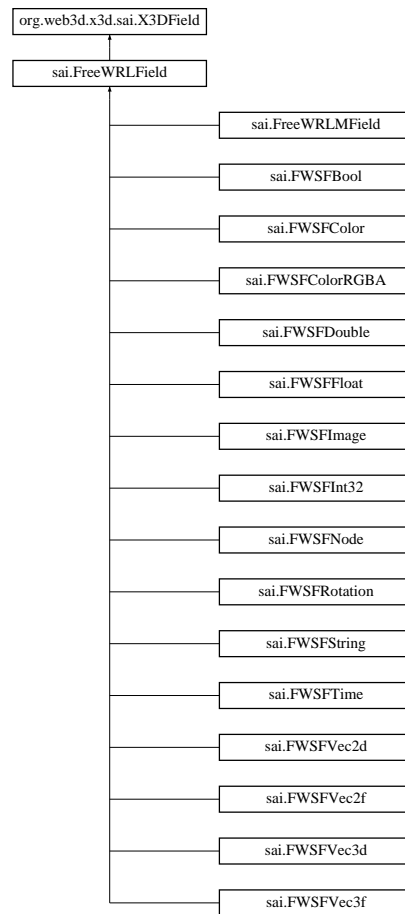
Definition at line 4 of file FreeWRLComponent.java.

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

- src/java/sai/FreeWRLComponent.java

## 4.343 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

#### 4.343.1 Detailed Description

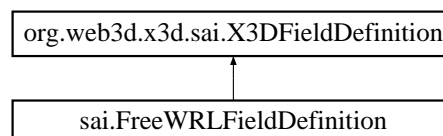
Definition at line 4 of file FreeWRLField.java.

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

- src/java/sai/FreeWRLField.java

### 4.344 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**

#### 4.344.1 Detailed Description

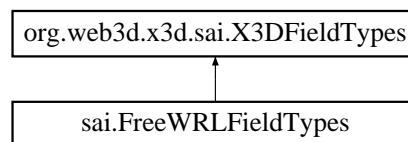
Definition at line 4 of file FreeWRLFieldDefinition.java.

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

- src/java/sai/FreeWRLFieldDefinition.java

### 4.345 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

#### 4.345.1 Detailed Description

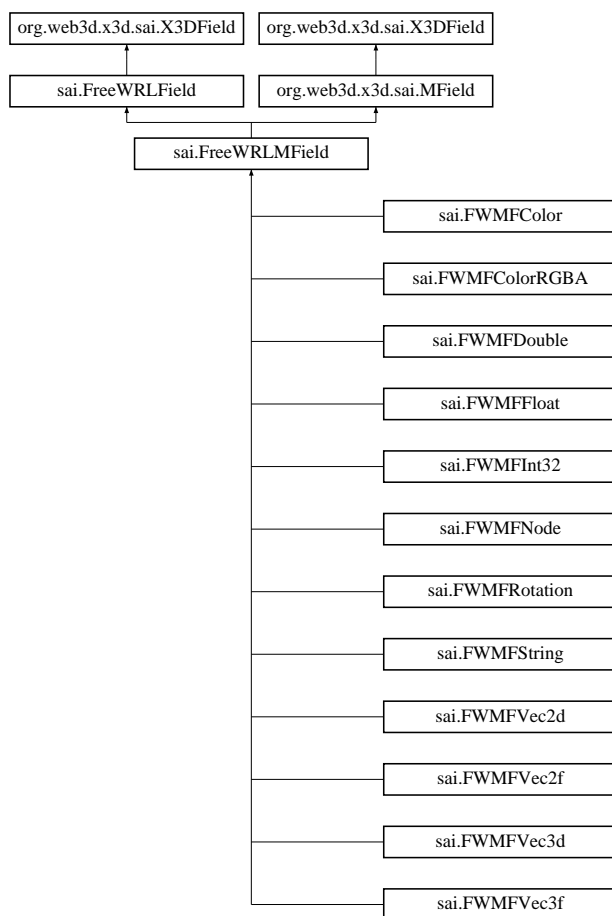
Definition at line 5 of file FreeWRLFieldTypes.java.

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

- src/java/sai/FreeWRLFieldTypes.java

## 4.346 sai.FreeWRLMField Class Reference

Inheritance diagram for sai.FreeWRLMField:



### Public Member Functions

- **FreeWRLMField** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- int **size** () throws InvalidFieldException, ConnectionException
- void **clear** () throws InvalidFieldException, ConnectionException
- void **remove** (int index) throws InvalidFieldException, ConnectionException, ArrayIndexOutOfBoundsException

### Additional Inherited Members

#### 4.346.1 Detailed Description

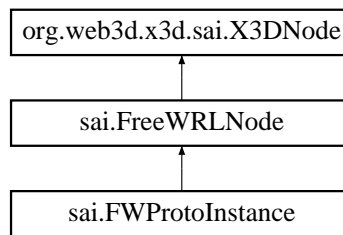
Definition at line 5 of file FreeWRLMField.java.

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

- src/java/sai/FreeWRLMField.java

## 4.347 sai.FreeWRLNode Class Reference

Inheritance diagram for sai.FreeWRLNode:



### Public Member Functions

- **FreeWRLNode** ( **FreeWRLBrowser** b)
- **String toString** ()
- **boolean equals** (Object o)
- **String getNodeName** () throws InvalidNodeException, ConnectionException
- **void setPerlPtr** (String p)
- **String getPerlPtr** ()
- **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

### 4.347.1 Detailed Description

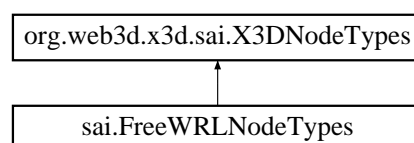
Definition at line 6 of file FreeWRLNode.java.

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

- src/java/sai/FreeWRLNode.java

## 4.348 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

#### 4.348.1 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

## 4.349 sai.FreeWRLRendererInfo Class Reference

### Static Public Member Functions

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

#### 4.349.1 Detailed Description

Definition at line 5 of file FreeWRLRendererInfo.java.

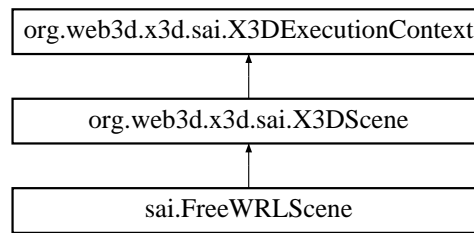
The documentation for this class was generated from the following file:

- src/java/sai/FreeWRLRendererInfo.java



## 4.350 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** ()

#### 4.350.1 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

### 4.351 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**

#### 4.351.1 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

## 4.352 fw\_MaterialParameters Struct Reference

### Data Fields

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

### 4.352.1 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

## 4.353 FWBITMAPFILEHEADER Struct Reference

### Data Fields

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

### 4.353.1 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

## 4.354 FWBITMAPINFO Struct Reference

### Data Fields

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

#### 4.354.1 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

### 4.355 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**

#### 4.355.1 Detailed Description

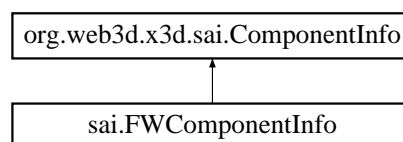
Definition at line 294 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

### 4.356 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** ()

### 4.356.1 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

## 4.357 vrml.FWCreateField Class Reference

### Static Public Member Functions

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

### 4.357.1 Detailed Description

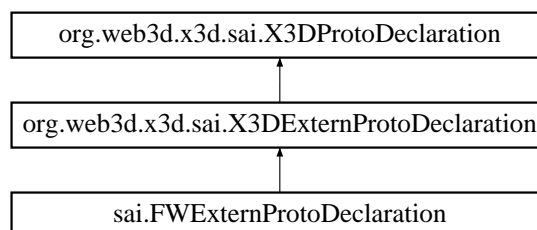
Definition at line 5 of file FWCreateField.java.

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

- src/java/vrml/FWCreateField.java

## 4.358 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** ()

### 4.358.1 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

## 4.359 FWFunctionSpec Struct Reference

### Data Fields

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

### 4.359.1 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

## 4.360 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)

### 4.360.1 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

## 4.361 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

### 4.361.1 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

## 4.362 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** ()

### 4.362.1 Detailed Description

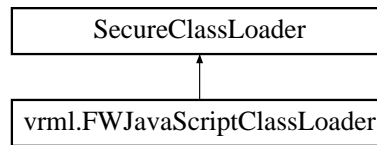
Definition at line 5 of file FWJavaScriptBinding.java.

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

- src/java/vrml/FWJavaScriptBinding.java

## 4.363 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

### 4.363.1 Detailed Description

Definition at line 13 of file FWJavaScriptClassLoader.java.

### 4.363.2 Constructor & Destructor Documentation

#### 4.363.2.1 FWJavaScriptClassLoader()

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

#### Parameters

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

Definition at line 21 of file FWJavaScriptClassLoader.java.

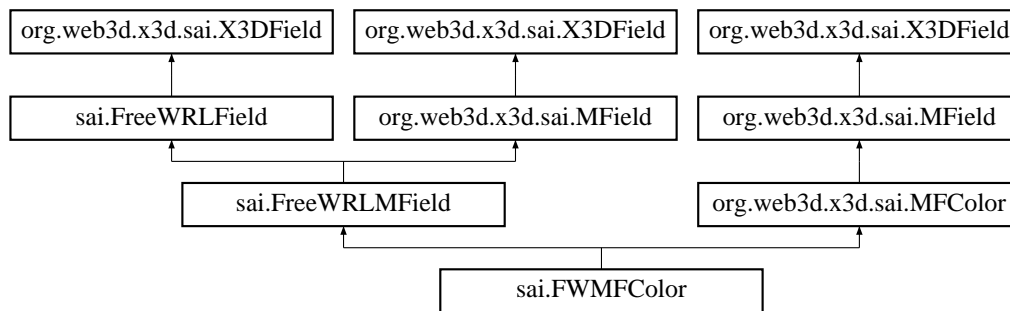
The documentation for this class was generated from the following file:

- src/java/vrml/FWJavaScriptClassLoader.java



## 4.364 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

#### 4.364.1 Detailed Description

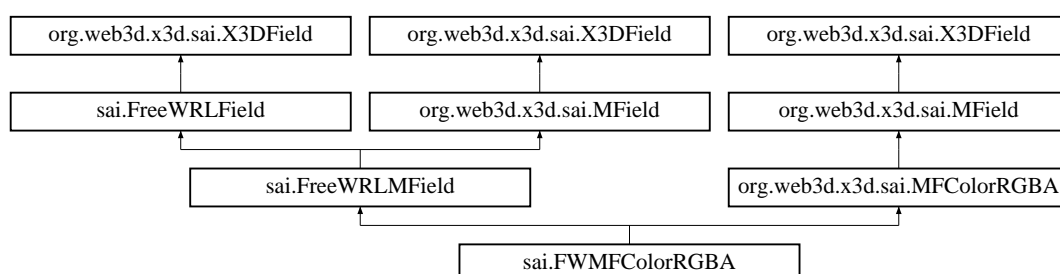
Definition at line 6 of file `FWMFColor.java`.

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

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

## 4.365 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

### 4.365.1 Detailed Description

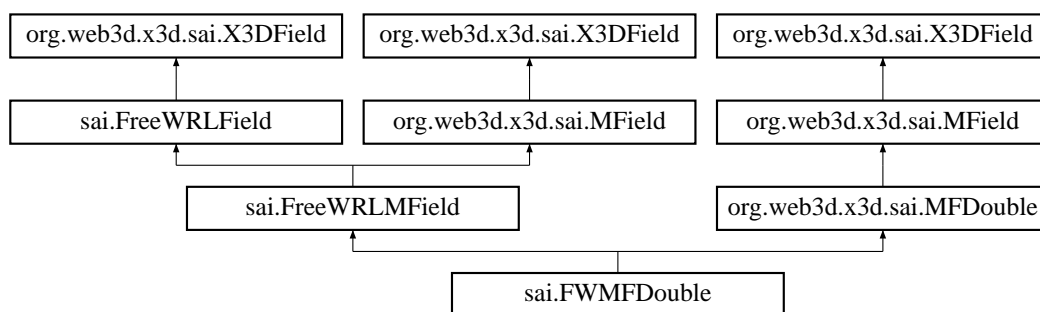
Definition at line 5 of file FWMFCOLORRGBA.java.

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

- src/java/sai/FWMFCOLORRGBA.java

## 4.366 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

### 4.366.1 Detailed Description

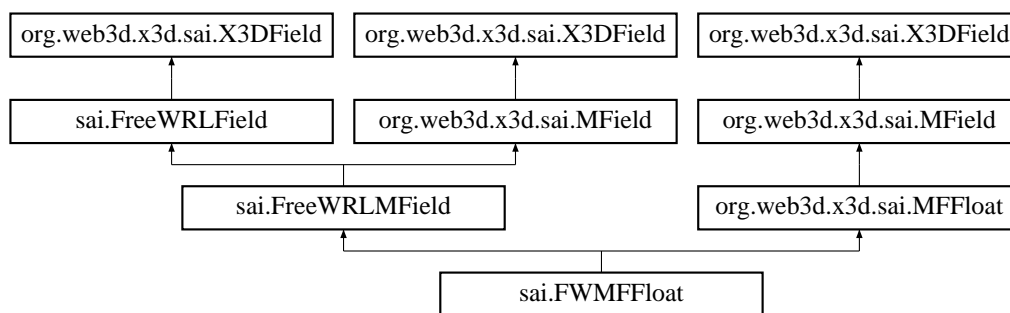
Definition at line 5 of file FWMFDouble.java.

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

- src/java/sai/FWMFDouble.java

## 4.367 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

### 4.367.1 Detailed Description

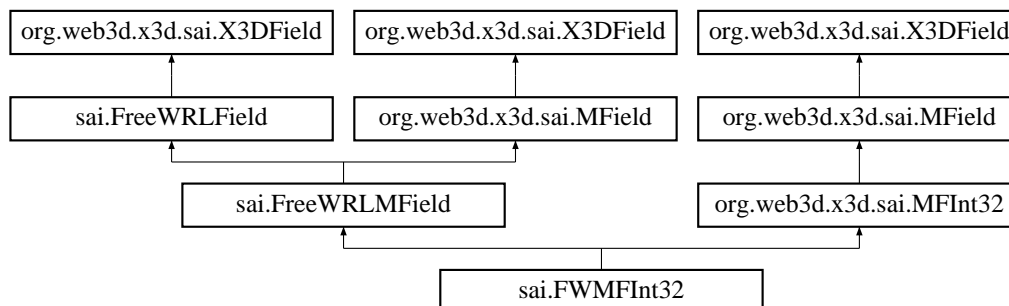
Definition at line 5 of file FWMFFloat.java.

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

- src/java/sai/FWMFFloat.java

## 4.368 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

#### 4.368.1 Detailed Description

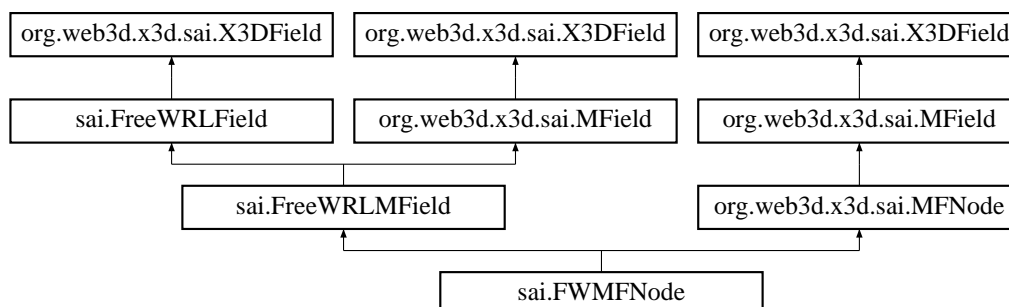
Definition at line 5 of file FWMFInt32.java.

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

- src/java/sai/FWMFInt32.java

## 4.369 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

### 4.369.1 Detailed Description

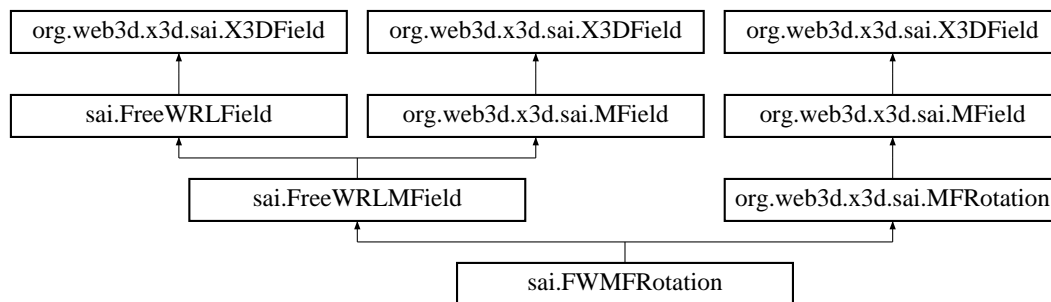
Definition at line 5 of file FWMFNode.java.

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

- src/java/sai/FWMFNode.java

## 4.370 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

### 4.370.1 Detailed Description

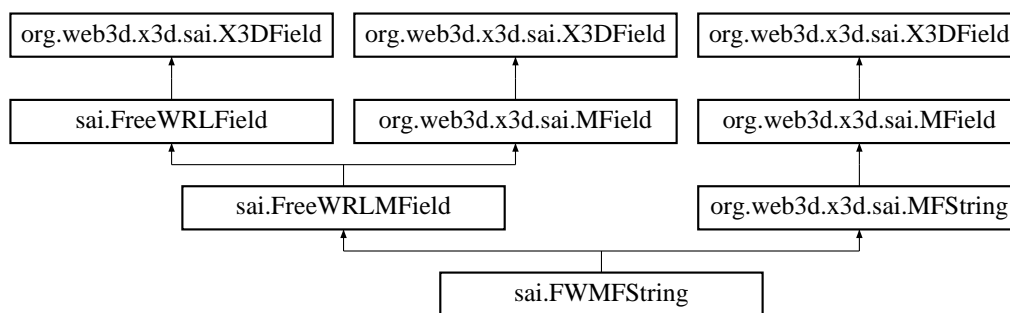
Definition at line 5 of file FWMFRotation.java.

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

- src/java/sai/FWMFRotation.java

## 4.371 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

### 4.371.1 Detailed Description

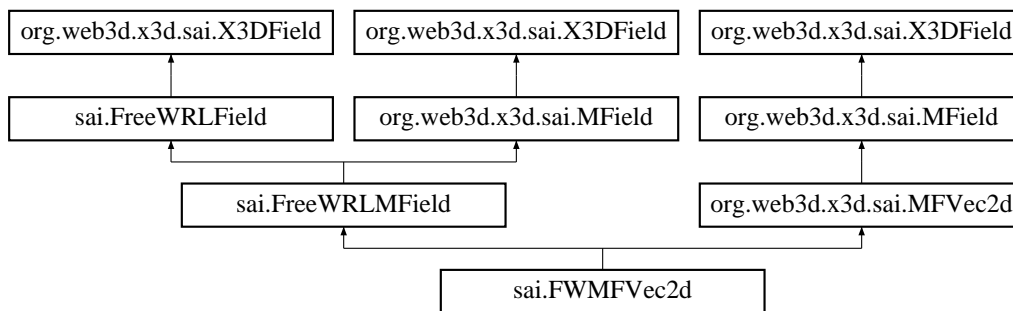
Definition at line 5 of file FWMFString.java.

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

- src/java/sai/FWMFString.java

## 4.372 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

#### 4.372.1 Detailed Description

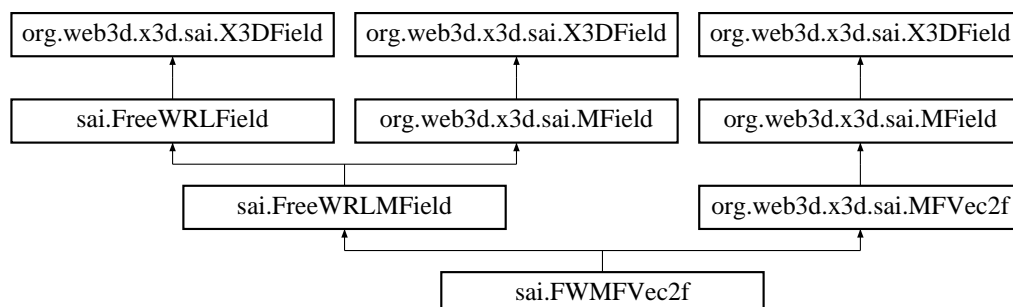
Definition at line 5 of file `FWMFVec2d.java`.

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

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

## 4.373 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

### 4.373.1 Detailed Description

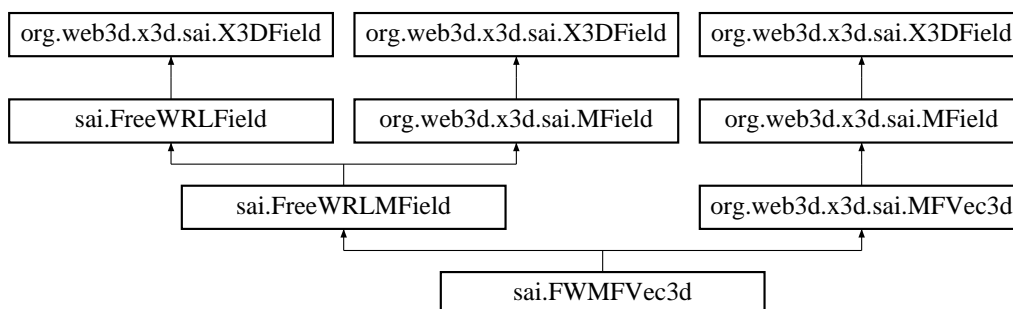
Definition at line 5 of file `FWMFVec2f.java`.

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

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

## 4.374 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

### 4.374.1 Detailed Description

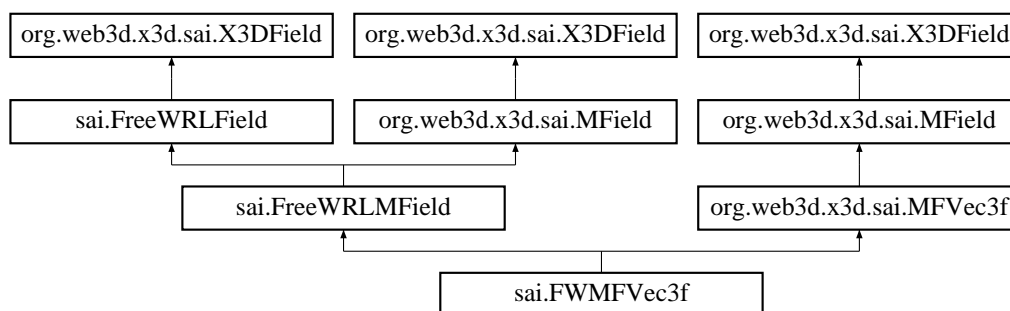
Definition at line 5 of file FWMFVec3d.java.

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

- src/java/sai/FWMFVec3d.java

## 4.375 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

### 4.375.1 Detailed Description

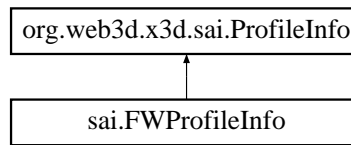
Definition at line 5 of file FWMFVec3f.java.

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

- src/java/sai/FWMFVec3f.java

## 4.376 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** ()

### 4.376.1 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

## 4.377 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

### 4.377.1 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

## 4.378 FWPropertySpec Struct Reference

### Data Fields

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

### 4.378.1 Detailed Description

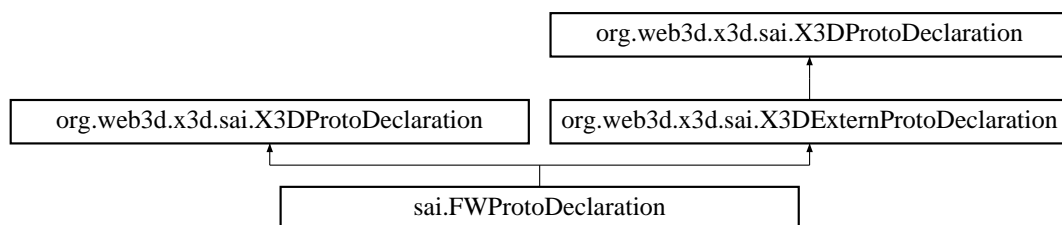
Definition at line 33 of file FWTYPE.h.

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

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

## 4.379 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** ()

### 4.379.1 Detailed Description

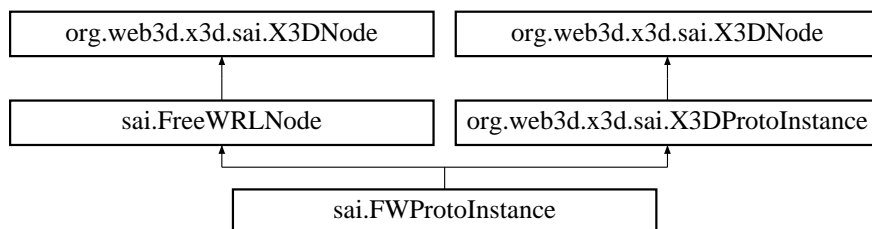
Definition at line 5 of file FWProtoDeclaration.java.

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

- src/java/sai/FWProtoDeclaration.java

## 4.380 sai.FWProtoInstance Class Reference

Inheritance diagram for sai.FWProtoInstance:



### Public Member Functions

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

### 4.380.1 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

## 4.381 FWRGBQUAD Struct Reference

### Data Fields

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

### 4.381.1 Detailed Description

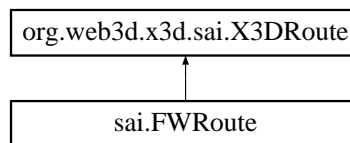
Definition at line 317 of file Snapshot.c.

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

- src/lib/main/Snapshot.c

## 4.382 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** ()

### 4.382.1 Detailed Description

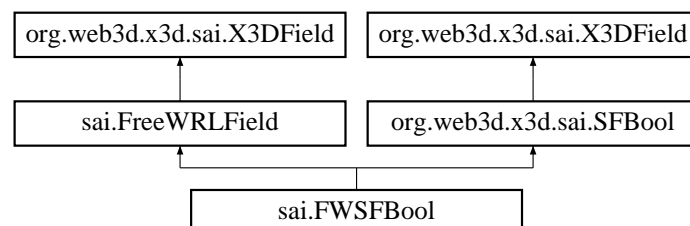
Definition at line 4 of file FWRoute.java.

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

- src/java/sai/FWRoute.java

## 4.383 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

### 4.383.1 Detailed Description

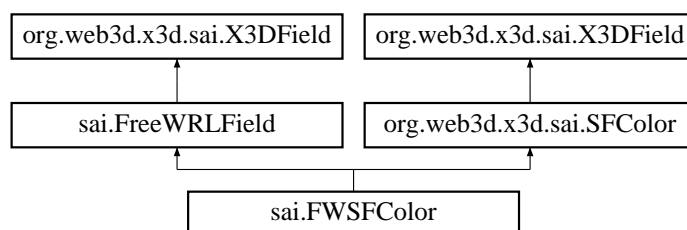
Definition at line 4 of file FWSFBool.java.

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

- src/java/sai/FWSFBool.java

## 4.384 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

### 4.384.1 Detailed Description

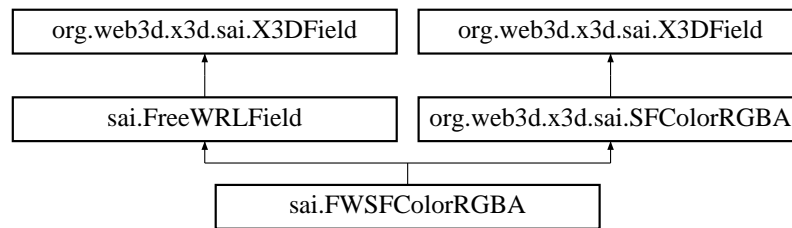
Definition at line 5 of file FWSFColor.java.

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

- src/java/sai/FWSFColor.java

## 4.385 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

#### 4.385.1 Detailed Description

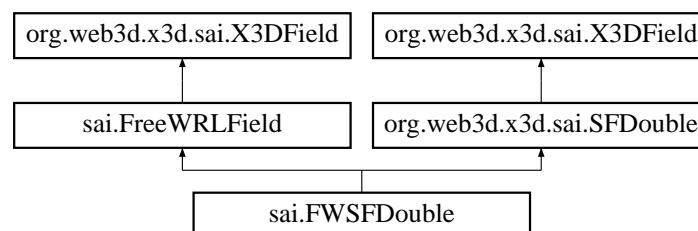
Definition at line 5 of file `FWSFCOLORRGBA.java`.

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

- `src/java/sai/FWSFCOLORRGBA.java`

## 4.386 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

### 4.386.1 Detailed Description

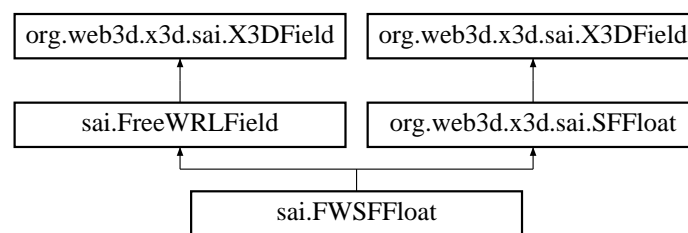
Definition at line 4 of file FWSFDouble.java.

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

- src/java/sai/FWSFDouble.java

## 4.387 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

### 4.387.1 Detailed Description

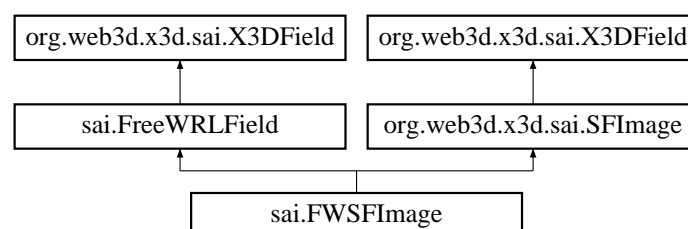
Definition at line 4 of file FWSFFloat.java.

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

- src/java/sai/FWSFFloat.java

## 4.388 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

### 4.388.1 Detailed Description

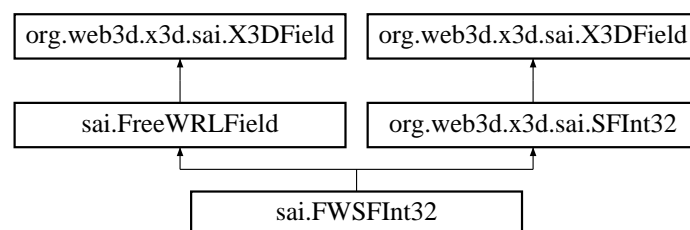
Definition at line 7 of file FWSFImage.java.

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

- src/java/sai/FWSFImage.java

## 4.389 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

### 4.389.1 Detailed Description

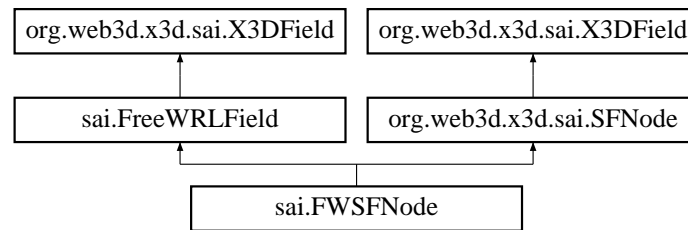
Definition at line 4 of file FWSFInt32.java.

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

- src/java/sai/FWSFInt32.java

## 4.390 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

#### 4.390.1 Detailed Description

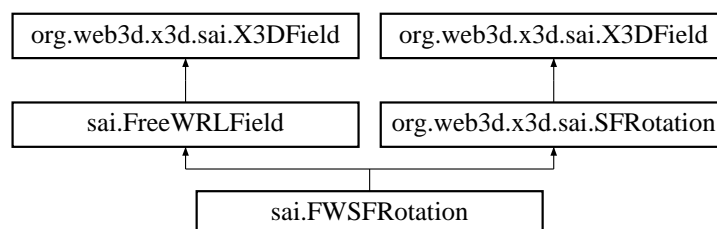
Definition at line 4 of file FWSFNode.java.

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

- src/java/sai/FWSFNode.java

## 4.391 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

### 4.391.1 Detailed Description

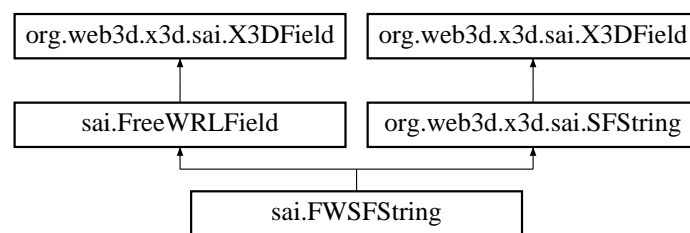
Definition at line 5 of file FWSFRotation.java.

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

- src/java/sai/FWSFRotation.java

## 4.392 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

### 4.392.1 Detailed Description

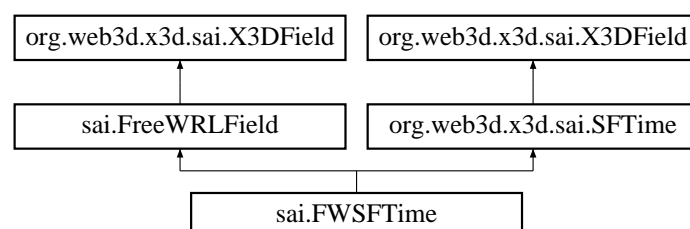
Definition at line 4 of file FWSFString.java.

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

- src/java/sai/FWSFString.java

## 4.393 sai.FWSFTime Class Reference

Inheritance diagram for sai.FWSFTime:



## Public Member Functions

- **FWSFTTime** ( **FreeWRLFieldDefinition** def, **FreeWRLBrowser** b)
- double **getValue** ()
- long **getJavaValue** ()
- void **setValue** (double value)
- void **setValue** (long value)

## Additional Inherited Members

### 4.393.1 Detailed Description

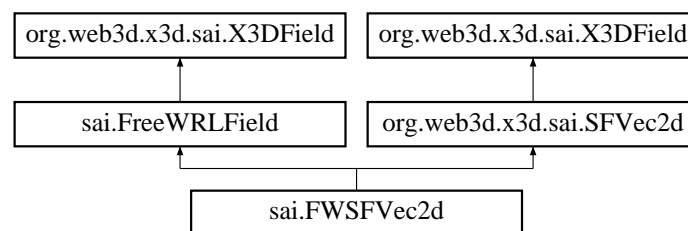
Definition at line 4 of file FWSFTTime.java.

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

- src/java/sai/FWSFTTime.java

## 4.394 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

### 4.394.1 Detailed Description

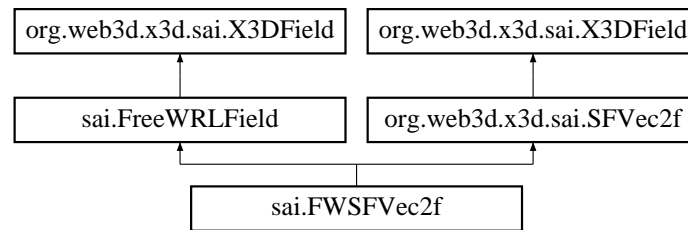
Definition at line 5 of file FWSFVec2d.java.

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

- src/java/sai/FWSFVec2d.java

## 4.395 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

#### 4.395.1 Detailed Description

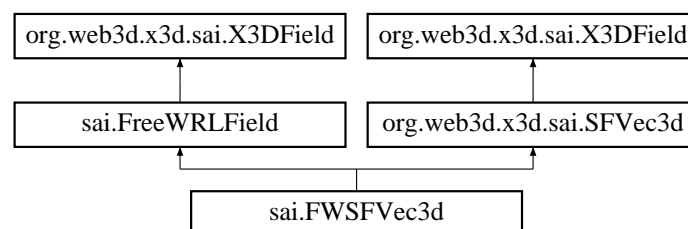
Definition at line 5 of file `FWSFVec2f.java`.

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

- `src/java/sai/FWSFVec2f.java`

## 4.396 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

### 4.396.1 Detailed Description

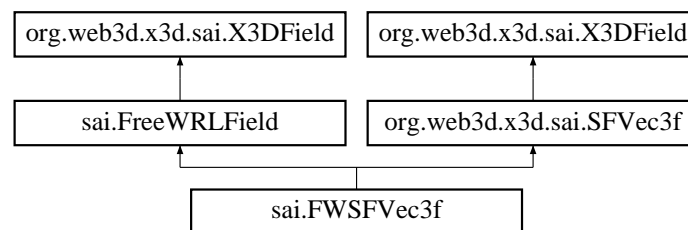
Definition at line 5 of file FWSFVec3d.java.

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

- src/java/sai/FWSFVec3d.java

## 4.397 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

### 4.397.1 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

## 4.398 FWSNDMSG Struct Reference

## Data Fields

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

### 4.398.1 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

## 4.399 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**

### 4.399.1 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

## 4.400 FWVAL Struct Reference

### Data Fields

- char **itype**
  -
- ```
union {
    int _null
    double _numeric
    int _integer
    int _boolean
    const char * _string
    FWPointer _pointer
    FWPointer _web3dval
    void * _jobject
};
```

#### 4.400.1 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

### 4.401 FXY Struct Reference

#### Data Fields

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

#### 4.401.1 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

### 4.402 GLUface Struct Reference

#### Data Fields

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

#### 4.402.1 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



## 4.403 GLUhalfEdge Struct Reference

### Data Fields

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

### 4.403.1 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

## 4.404 GLUmesh Struct Reference

### Data Fields

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

### 4.404.1 Detailed Description

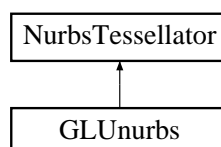
Definition at line 163 of file mesh.h.

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

- src/libtess/mesh.h

## 4.405 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

### 4.405.1 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

## 4.406 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**

### 4.406.1 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

## 4.407 GLUvertex Struct Reference

### Data Fields

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

#### 4.407.1 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

### 4.408 GLwDrawingAreaCallbackStruct Struct Reference

#### Data Fields

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

#### 4.408.1 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

### 4.409 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**

### 4.409.1 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

## 4.410 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**

### 4.410.1 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

## 4.411 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** ()

#### 4.411.1 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

#### 4.412 Gridline Struct Reference

##### Data Fields

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

#### 4.412.1 Detailed Description

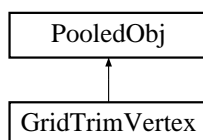
Definition at line 39 of file gridline.h.

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

- src/libnurbs/internals/gridline.h

#### 4.413 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

#### 4.413.1 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

## 4.414 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]

#### 4.414.1 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

## 4.415 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** ()

#### 4.415.1 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

### 4.416 GUIElement Struct Reference

#### Data Fields

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

#### 4.416.1 Detailed Description

Definition at line 2946 of file Component\_Text.c.

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

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

### 4.417 GUINamedType Struct Reference

#### Data Fields

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

#### 4.417.1 Detailed Description

Definition at line 2297 of file Component\_Text.c.

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

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

### 4.418 GUIScreen Struct Reference

#### Data Fields

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



### 4.418.1 Detailed Description

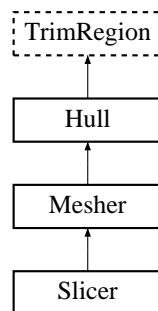
Definition at line 2975 of file Component\_Text.c.

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

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

## 4.419 Hull Class Reference

Inheritance diagram for Hull:



### Public Member Functions

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

### Additional Inherited Members

### 4.419.1 Detailed Description

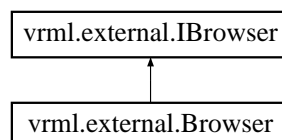
Definition at line 47 of file hull.h.

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

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

## 4.420 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)

### 4.420.1 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

## 4.421 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::tCParserParser CParserParser**
- 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**

#### 4.421.1 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`

## 4.422 IMEXPORT Struct Reference

### Data Fields

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

#### 4.422.1 Detailed Description

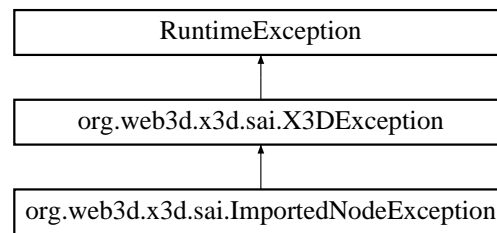
Definition at line 240 of file `CParserParser.h`.

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

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

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

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



### Public Member Functions

- **ImportedException** (String msg)

#### 4.423.1 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

## 4.424 initialRouteStruct Struct Reference

### Data Fields

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

#### 4.424.1 Detailed Description

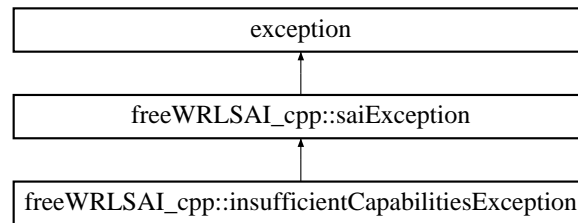
Definition at line 209 of file CRoutes.c.

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

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

## 4.425 freeWRLSAI\_cpp::insufficientCapabilitiesException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::insufficientCapabilitiesException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.425.1 Detailed Description

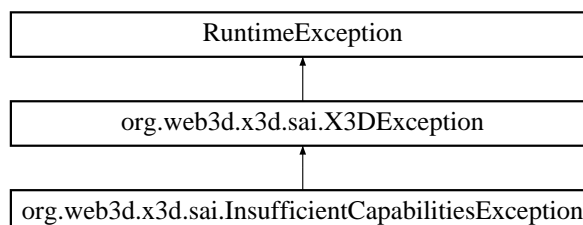
Definition at line 118 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

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

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



### Public Member Functions

- **InsufficientCapabilitiesException** (String msg)

#### 4.426.1 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`

### 4.427 intersection\_info Struct Reference

#### Data Fields

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

#### 4.427.1 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`

### 4.428 intTableIndex Struct Reference

#### Data Fields

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

#### 4.428.1 Detailed Description

Definition at line 166 of file `jsVRMLBrowser.c`.

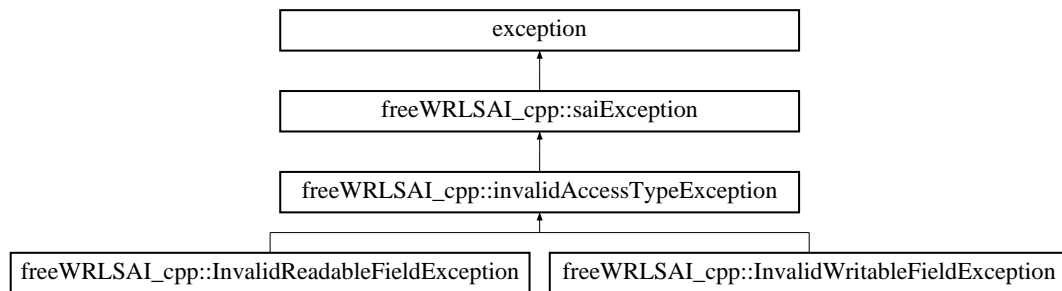
The documentation for this struct was generated from the following file:

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



## 4.429 freeWRLSAI\_cpp::invalidAccessTypeException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidAccessTypeException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.429.1 Detailed Description

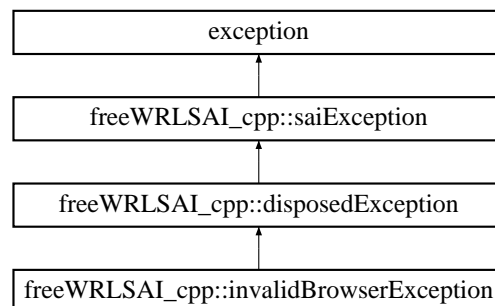
Definition at line 129 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.430 freeWRLSAI\_cpp::invalidBrowserException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidBrowserException:



### Public Member Functions

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

## Additional Inherited Members

### 4.430.1 Detailed Description

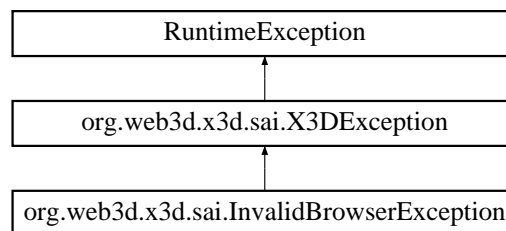
Definition at line 140 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

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

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



## Public Member Functions

- **InvalidBrowserException** (String msg)

### 4.431.1 Detailed Description

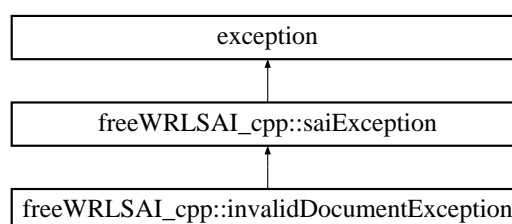
Definition at line 3 of file InvalidBrowserException.java.

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

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

## 4.432 freeWRLSAI\_cpp::invalidDocumentException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidDocumentException:



## Public Member Functions

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

## Additional Inherited Members

### 4.432.1 Detailed Description

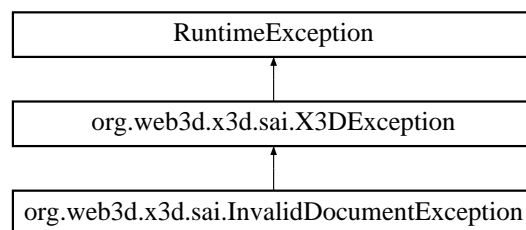
Definition at line 151 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

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

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



## Public Member Functions

- **InvalidDocumentException** (String msg)

### 4.433.1 Detailed Description

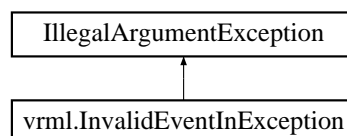
Definition at line 3 of file InvalidDocumentException.java.

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

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

## 4.434 vrml.InvalidEventInException Class Reference

Inheritance diagram for vrml.InvalidEventInException:



## Public Member Functions

- **InvalidEventInException** (String s)

### 4.434.1 Detailed Description

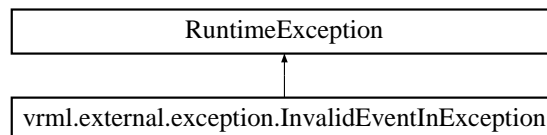
Definition at line 6 of file InvalidEventInException.java.

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

- src/java/vrml/InvalidEventInException.java

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

Inheritance diagram for vrml.external.exception.InvalidEventInException:



## Public Member Functions

- **InvalidEventInException** ()  
Constructs an **InvalidEventInException** (p. 286) with no detail message.
- **InvalidEventInException** (String s)  
Constructs an **InvalidEventInException** (p. 286) with the specified detail message.

### 4.435.1 Detailed Description

Definition at line 3 of file InvalidEventInException.java.

### 4.435.2 Constructor & Destructor Documentation

#### 4.435.2.1 InvalidEventInException()

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

Constructs an **InvalidEventInException** (p. 286) with the specified detail message.

A detail message is a String that describes this particular exception.

## Parameters

|   |                    |
|---|--------------------|
| s | the detail message |
|---|--------------------|

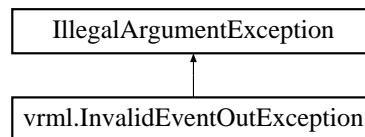
Definition at line 17 of file InvalidEventInException.java.

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

- src/java/vrml/external/exception/InvalidEventInException.java

## 4.436 vrml.InvalidEventOutException Class Reference

Inheritance diagram for vrml.InvalidEventOutException:



## Public Member Functions

- **InvalidEventOutException** (String s)

### 4.436.1 Detailed Description

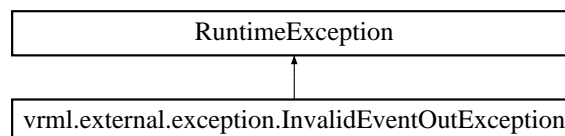
Definition at line 6 of file InvalidEventOutException.java.

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

- src/java/vrml/InvalidEventOutException.java

## 4.437 vrml.external.exception.InvalidEventOutException Class Reference

Inheritance diagram for vrml.external.exception.InvalidEventOutException:



## Public Member Functions

- **InvalidEventOutException** (String s)

#### 4.437.1 Detailed Description

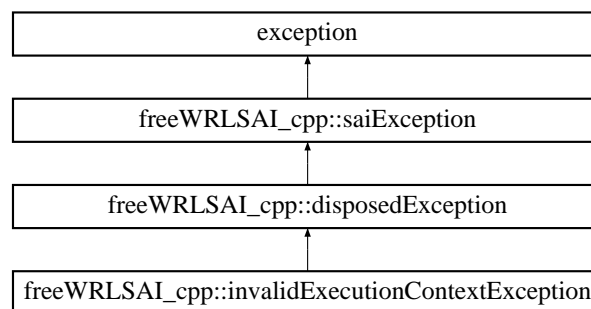
Definition at line 3 of file InvalidEventOutException.java.

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

- src/java/vrml/external/exception/InvalidEventOutException.java

#### 4.438 freeWRLSAI\_cpp::invalidExecutionContextException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidExecutionContextException:



##### Public Member Functions

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

##### Additional Inherited Members

#### 4.438.1 Detailed Description

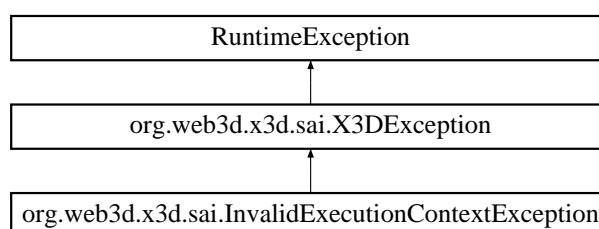
Definition at line 253 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

#### 4.439 org.web3d.x3d.sai.InvalidExecutionContextException Class Reference

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



### Public Member Functions

- **InvalidExecutionContextException** (String msg)

#### 4.439.1 Detailed Description

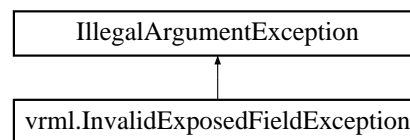
Definition at line 3 of file InvalidExecutionContextException.java.

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

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

### 4.440 vrml.InvalidExposedFieldException Class Reference

Inheritance diagram for vrml.InvalidExposedFieldException:



### Public Member Functions

- **InvalidExposedFieldException** (String s)

#### 4.440.1 Detailed Description

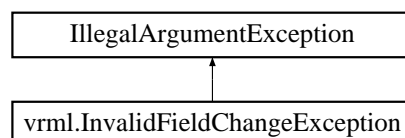
Definition at line 6 of file InvalidExposedFieldException.java.

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

- src/java/vrml/InvalidExposedFieldException.java

### 4.441 vrml.InvalidFieldChangeException Class Reference

Inheritance diagram for vrml.InvalidFieldChangeException:



## Public Member Functions

- **InvalidFieldChangeException** (String s)

### 4.441.1 Detailed Description

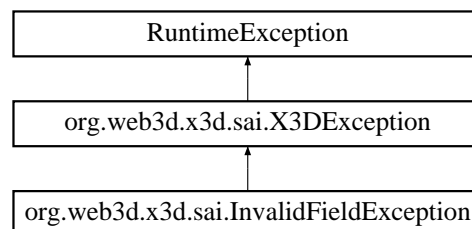
Definition at line 6 of file InvalidFieldChangeException.java.

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

- src/java/vrml/InvalidFieldChangeException.java

## 4.442 org.web3d.x3d.sai.InvalidFieldException Class Reference

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



## Public Member Functions

- **InvalidFieldException** (String msg)

### 4.442.1 Detailed Description

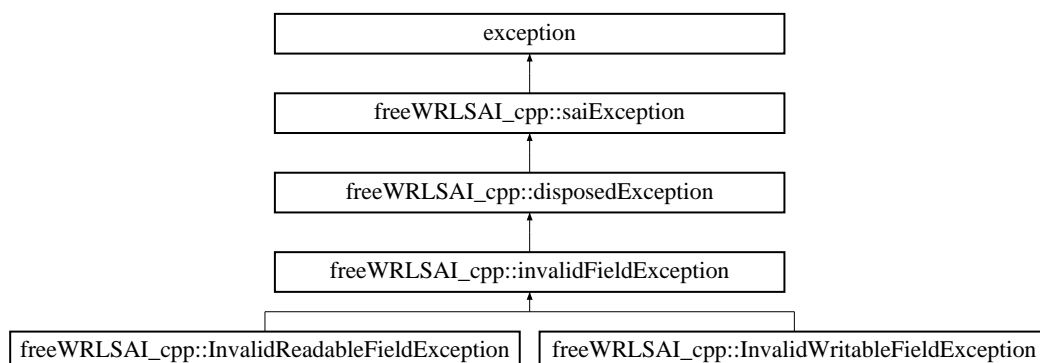
Definition at line 3 of file InvalidFieldException.java.

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

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

## 4.443 freeWRLSAI\_cpp::invalidFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidFieldException:





### Public Member Functions

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

### Additional Inherited Members

#### 4.443.1 Detailed Description

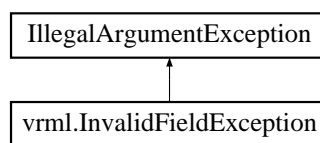
Definition at line 264 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.444 vrml.InvalidFieldException Class Reference

Inheritance diagram for vrml.InvalidFieldException:



### Public Member Functions

- **InvalidFieldException** (String s)

#### 4.444.1 Detailed Description

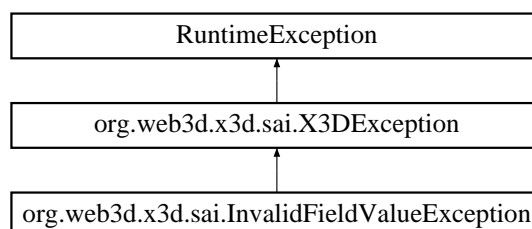
Definition at line 6 of file InvalidFieldException.java.

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

- src/java/vrml/InvalidFieldException.java

## 4.445 org.web3d.x3d.sai.InvalidFieldValueException Class Reference

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



## Public Member Functions

- **InvalidFieldValueException** (String msg)

### 4.445.1 Detailed Description

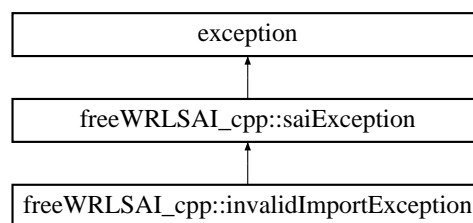
Definition at line 3 of file InvalidFieldValueException.java.

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

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

## 4.446 freeWRLSAI\_cpp::invalidImportException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidImportException:



## Public Member Functions

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

## Additional Inherited Members

### 4.446.1 Detailed Description

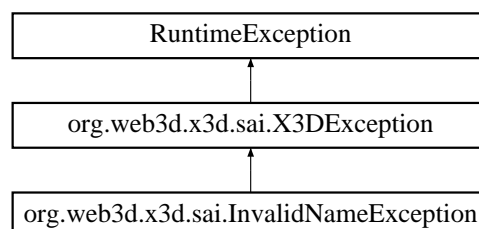
Definition at line 107 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.447 org.web3d.x3d.sai.InvalidNameException Class Reference

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



### Public Member Functions

- **InvalidNameException** (String str)

#### 4.447.1 Detailed Description

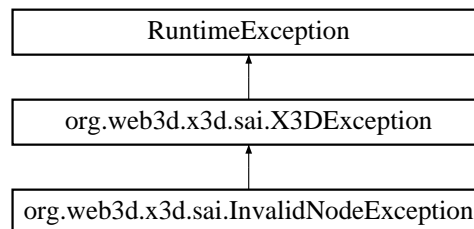
Definition at line 3 of file InvalidNameException.java.

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

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

## 4.448 org.web3d.x3d.sai.InvalidNodeException Class Reference

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



### Public Member Functions

- **InvalidNodeException** (String str)

#### 4.448.1 Detailed Description

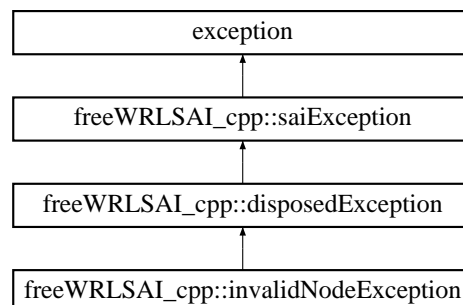
Definition at line 3 of file InvalidNodeException.java.

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

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

## 4.449 freeWRLSAI\_cpp::invalidNodeException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidNodeException:



## Public Member Functions

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

## Additional Inherited Members

### 4.449.1 Detailed Description

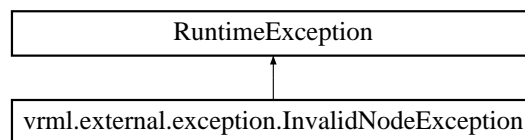
Definition at line 275 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.450 vrml.external.exception.InvalidNodeException Class Reference

Inheritance diagram for vrml.external.exception.InvalidNodeException:



## Public Member Functions

- **InvalidNodeException** ()  
Constructs an **InvalidNodeException** (p. 294) with no detail message.
- **InvalidNodeException** (String s)  
Constructs an **InvalidNodeException** (p. 294) with the specified detail message.

### 4.450.1 Detailed Description

Definition at line 3 of file InvalidNodeException.java.

### 4.450.2 Constructor & Destructor Documentation

#### 4.450.2.1 InvalidNodeException()

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

Constructs an **InvalidNodeException** (p. 294) with the specified detail message.

A detail message is a String that describes this particular exception.

## Parameters

|   |                    |
|---|--------------------|
| s | the detail message |
|---|--------------------|

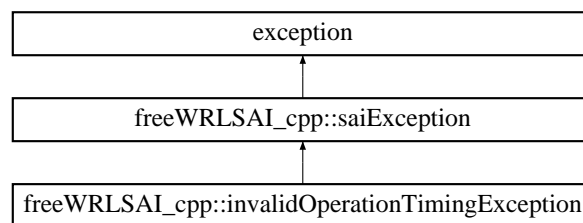
Definition at line 17 of file InvalidNodeException.java.

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

- src/java/vrml/external/exception/InvalidNodeException.java

## 4.451 freeWRLSAI\_cpp::invalidOperationTimingException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidOperationTimingException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.451.1 Detailed Description

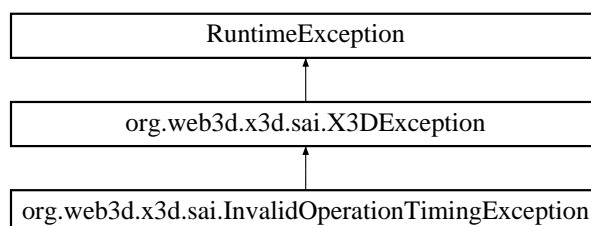
Definition at line 162 of file SAlexception.h.

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

- src/SAI\_Cpp/SAlexception.h

## 4.452 org.web3d.x3d.sai.InvalidOperationTimingException Class Reference

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



## Public Member Functions

- **InvalidOperationTimingException** (String msg)

### 4.452.1 Detailed Description

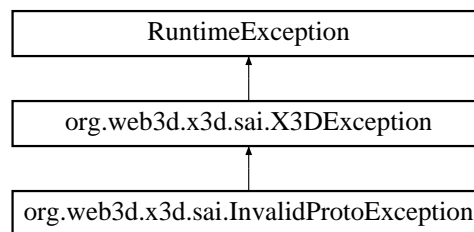
Definition at line 3 of file InvalidOperationTimingException.java.

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

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

## 4.453 org.web3d.x3d.sai.InvalidProtoException Class Reference

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



## Public Member Functions

- **InvalidProtoException** (String msg)

### 4.453.1 Detailed Description

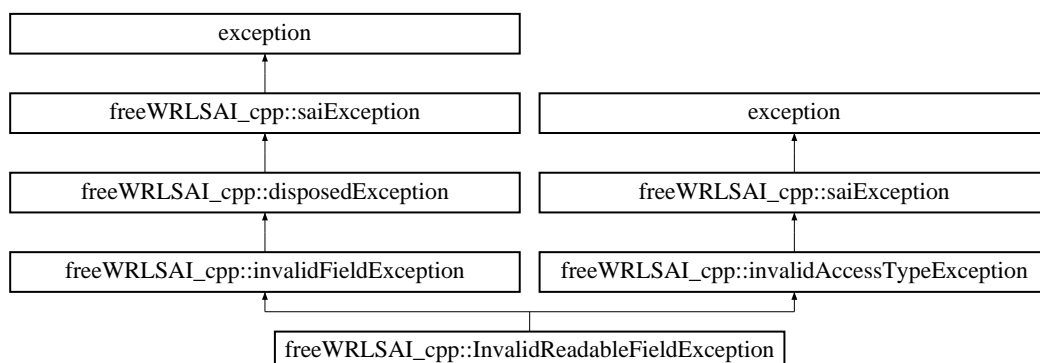
Definition at line 3 of file InvalidProtoException.java.

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

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

## 4.454 freeWRLSAI\_cpp::InvalidReadableFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::InvalidReadableFieldException:



### Public Member Functions

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

### Additional Inherited Members

#### 4.454.1 Detailed Description

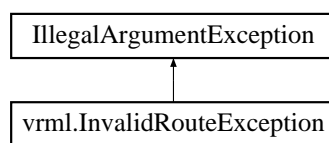
Definition at line 298 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.455 vrml.InvalidRouteException Class Reference

Inheritance diagram for vrml.InvalidRouteException:



### Public Member Functions

- **InvalidRouteException** (String s)

#### 4.455.1 Detailed Description

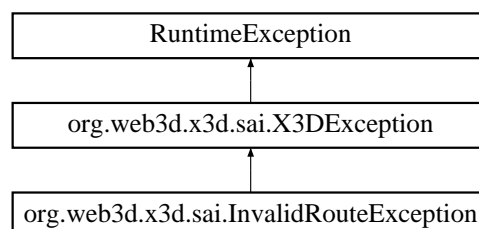
Definition at line 6 of file InvalidRouteException.java.

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

- src/java/vrml/InvalidRouteException.java

## 4.456 org.web3d.x3d.sai.InvalidRouteException Class Reference

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



## Public Member Functions

- **InvalidRouteException** (String msg)

### 4.456.1 Detailed Description

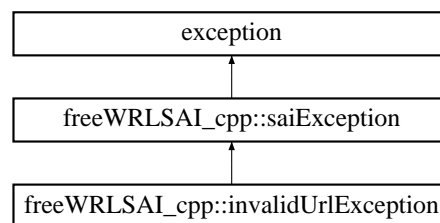
Definition at line 3 of file InvalidRouteException.java.

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

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

## 4.457 freeWRLSAI\_cpp::invalidUrlException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidUrlException:



## Public Member Functions

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

## Additional Inherited Members

### 4.457.1 Detailed Description

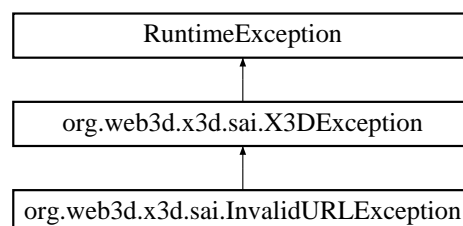
Definition at line 173 of file SAException.h.

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

- src/SAI\_Cpp/SAException.h

## 4.458 org.web3d.x3d.sai.InvalidURLException Class Reference

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





## Public Member Functions

- **InvalidURLException** (String str)

### 4.458.1 Detailed Description

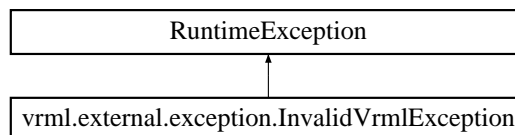
Definition at line 3 of file InvalidURLException.java.

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

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

## 4.459 vrml.external.exception.InvalidVrmlException Class Reference

Inheritance diagram for vrml.external.exception.InvalidVrmlException:



## Public Member Functions

- **InvalidVrmlException** ()  
Constructs an **InvalidVrmlException** (p. 299) with no detail message.
- **InvalidVrmlException** (String s)  
Constructs an **InvalidVrmlException** (p. 299) with the specified detail message.

### 4.459.1 Detailed Description

Definition at line 3 of file InvalidVrmlException.java.

### 4.459.2 Constructor & Destructor Documentation

#### 4.459.2.1 InvalidVrmlException()

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

Constructs an **InvalidVrmlException** (p. 299) with the specified detail message.

A detail message is a String that describes this particular exception.

## Parameters

|   |                    |
|---|--------------------|
| s | the detail message |
|---|--------------------|

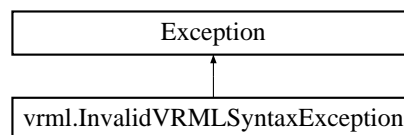
Definition at line 17 of file InvalidVrmlException.java.

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

- src/java/vrml/external/exception/InvalidVrmlException.java

#### 4.460 vrml.InvalidVRMLSyntaxException Class Reference

Inheritance diagram for vrml.InvalidVRMLSyntaxException:



##### Public Member Functions

- **InvalidVRMLSyntaxException** (String s)

##### 4.460.1 Detailed Description

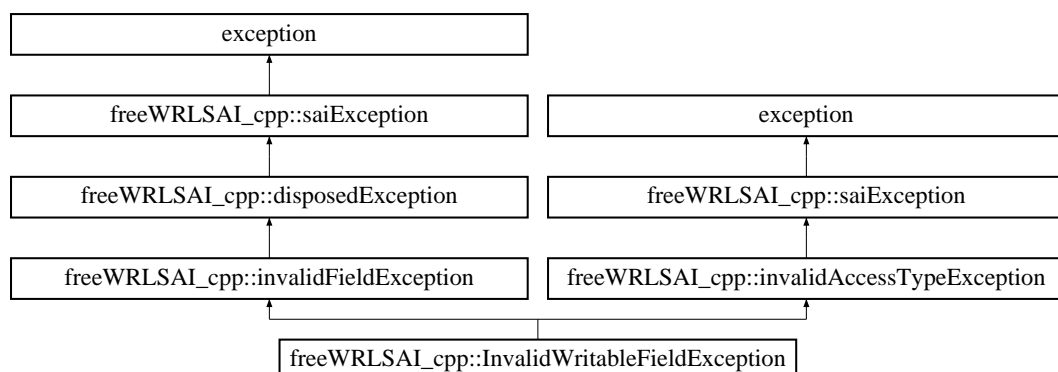
Definition at line 3 of file InvalidVRMLSyntaxException.java.

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

- src/java/vrml/InvalidVRMLSyntaxException.java

#### 4.461 freeWRLSAI\_cpp::InvalidWritableFieldException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::InvalidWritableFieldException:



## Public Member Functions

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

## Additional Inherited Members

### 4.461.1 Detailed Description

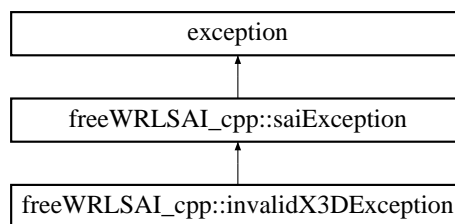
Definition at line 287 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.462 freeWRLSAI\_cpp::invalidX3DException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::invalidX3DException:



## Public Member Functions

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

## Additional Inherited Members

### 4.462.1 Detailed Description

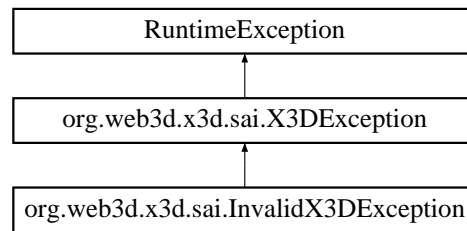
Definition at line 184 of file SAexception.h.

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

- src/SAI\_Cpp/SAexception.h

## 4.463 org.web3d.x3d.sai.InvalidX3DException Class Reference

Inheritance diagram for org.web3d.x3d.sai.InvalidX3DException:



### Public Member Functions

- **InvalidX3DException** (String str)

#### 4.463.1 Detailed Description

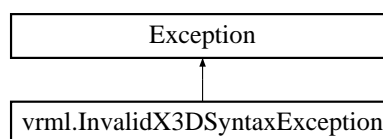
Definition at line 3 of file InvalidX3DException.java.

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

- src/java/org/web3d/x3d/sai/InvalidX3DException.java

## 4.464 vrml.InvalidX3DSyntaxException Class Reference

Inheritance diagram for vrml.InvalidX3DSyntaxException:



### Public Member Functions

- **InvalidX3DSyntaxException** (String s)

#### 4.464.1 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

## 4.465 ivec2 Struct Reference

### Data Fields

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

### 4.465.1 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

## 4.466 ivec4 Struct Reference

### Data Fields

- int **X**
- int **Y**
- int **W**
- int **H**

### 4.466.1 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

## 4.467 Jarcloc Class Reference

### Public Member Functions

- void **init** (Arc\_ptr a, long first, long last)
- TrimVertex \* **getnextpt** (void)
- TrimVertex \* **getprevpt** (void)
- void **reverse** ()

#### 4.467.1 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

### 4.468 JMATRIX Struct Reference

#### Data Fields

- double **mat** [16]
- float **normal** [9]

#### 4.468.1 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

### 4.469 JSLoadPropElement Struct Reference

#### Data Fields

- JSClass \* **class**
- void \* **constr**
- void \* **Functions**
- void \* **Properties**
- char \* **id**

#### 4.469.1 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

### 4.470 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).*

### 4.470.1 Detailed Description

The structure used to configure a JSON parser object.

Definition at line 121 of file cson\_amalgamation\_core.c.

### 4.470.2 Field Documentation

#### 4.470.2.1 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.

#### 4.470.2.2 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.

#### 4.470.2.3 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.

#### 4.470.2.4 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.

#### 4.470.2.5 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



## 4.471 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**

### 4.471.1 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

## 4.472 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
```

#### 4.472.1 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`

### 4.473 key Struct Reference

#### Data Fields

- char **key**
- unsigned int **hit**

#### 4.473.1 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`

### 4.474 keyHit Struct Reference

#### Data Fields

- int **direction**
- double **epoch**
- double **era**
- int **once**

#### 4.474.1 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`

### 4.475 keyval Struct Reference

#### Data Fields

- char \* **key**
- char \* **val**
- `cson_value` \* **cv**

### 4.475.1 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

## 4.476 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**

### 4.476.1 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

## 4.477 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**

### 4.477.1 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

## 4.478 layout\_scale\_item Struct Reference

### Data Fields

- float **scale** [2]
- int **scalemode** [2]

### 4.478.1 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

## 4.479 layoutmode Struct Reference

### Data Fields

- char \* **key**
- int **type**

#### 4.479.1 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

## 4.480 linkedlist\_data\_s Struct Reference

### Data Fields

- **linkedlist\_datablock\_internal** \* **first\_block**
- **linkedlist\_datablock\_internal** \* **last\_block**

#### 4.480.1 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

## 4.481 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]

#### 4.481.1 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

## 4.482 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**

### 4.482.1 Detailed Description

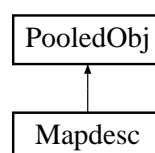
Definition at line 158 of file mpeg\_berkley.h.

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

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

## 4.483 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**

### 4.483.1 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

## 4.484 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)

### 4.484.1 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

## 4.485 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**



### 4.485.1 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

## 4.486 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)

### 4.486.1 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

## 4.487 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

### 4.487.1 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

## 4.488 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

#### 4.488.1 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

### 4.489 mb\_addr\_inc\_entry Struct Reference

#### Data Fields

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

#### 4.489.1 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

### 4.490 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**

#### 4.490.1 Detailed Description

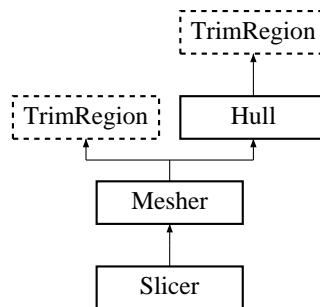
Definition at line 757 of file mpeg\_berkley.h.

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

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

## 4.491 Mesher Class Reference

Inheritance diagram for Mesher:



### Public Member Functions

- **Mesher** ( **Backend** & )
- void **init** (unsigned int)
- void **mesh** (void)

### Additional Inherited Members

#### 4.491.1 Detailed Description

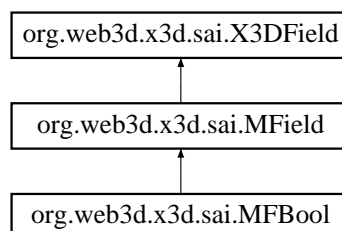
Definition at line 47 of file mesher.h.

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

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

## 4.492 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)

### 4.492.1 Detailed Description

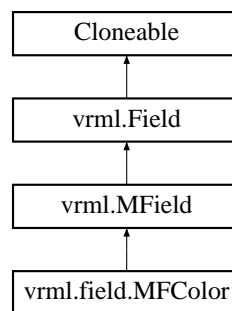
Definition at line 3 of file `MFBool.java`.

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

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

## 4.493 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

### 4.493.1 Detailed Description

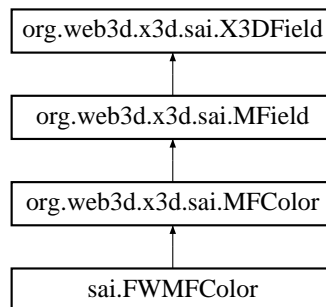
Definition at line 10 of file MFCOLOR.java.

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

- src/java/vrml/field/MFCOLOR.java

## 4.494 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)

### 4.494.1 Detailed Description

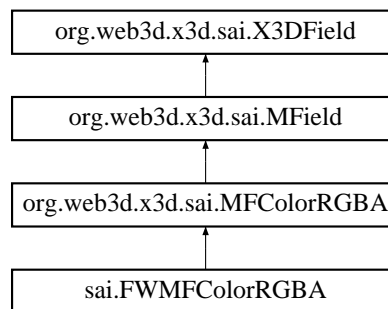
Definition at line 3 of file MFCOLOR.java.

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

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

## 4.495 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)

### 4.495.1 Detailed Description

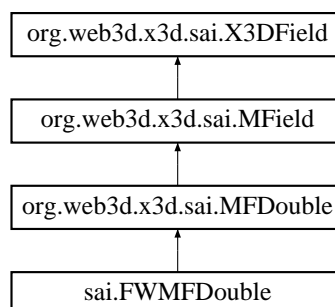
Definition at line 3 of file MFColorRGBA.java.

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

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

## 4.496 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)

### 4.496.1 Detailed Description

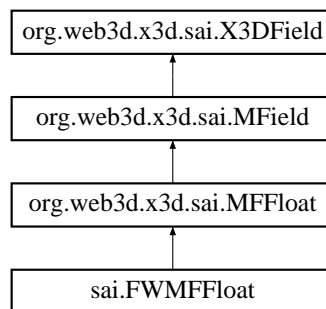
Definition at line 3 of file MFDouble.java.

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

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

## 4.497 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)

### 4.497.1 Detailed Description

Definition at line 3 of file MFFloat.java.

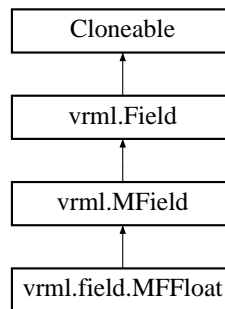
The documentation for this interface was generated from the following file:

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



## 4.498 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

#### 4.498.1 Detailed Description

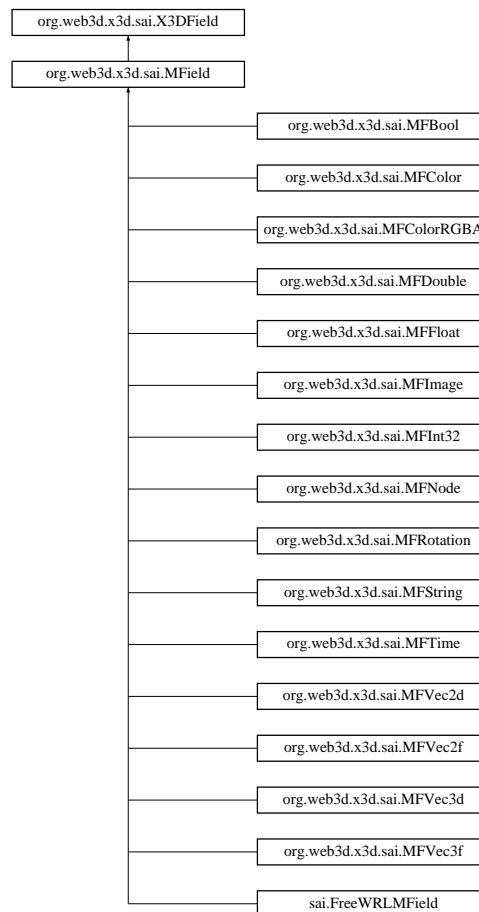
Definition at line 10 of file MFFloat.java.

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

- src/java/vrml/field/MFFloat.java

## 4.499 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

### 4.499.1 Detailed Description

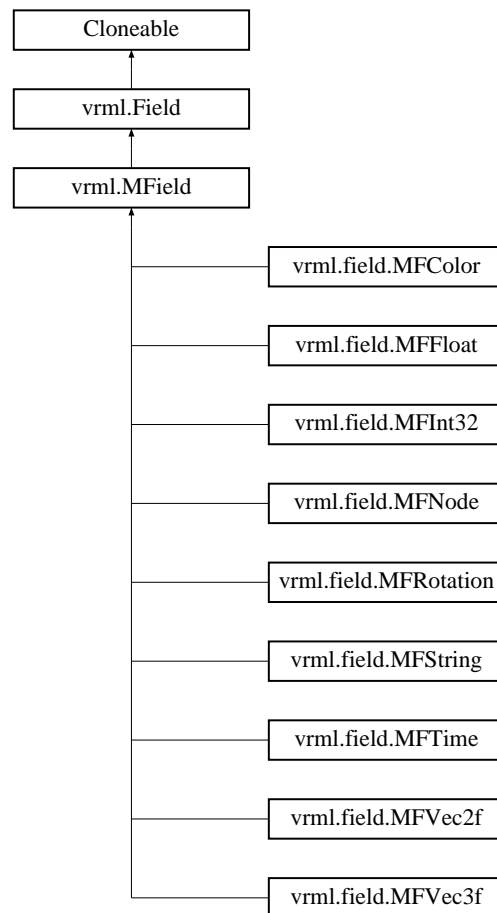
Definition at line 3 of file MField.java.

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

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

## 4.500 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)

### 4.500.1 Detailed Description

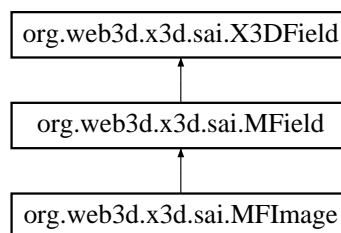
Definition at line 4 of file MField.java.

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

- src/java/vrml/MField.java

## 4.501 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)

### 4.501.1 Detailed Description

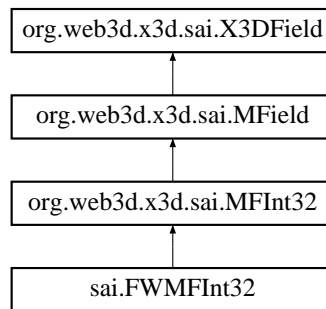
Definition at line 4 of file MFImage.java.

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

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

## 4.502 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)

### 4.502.1 Detailed Description

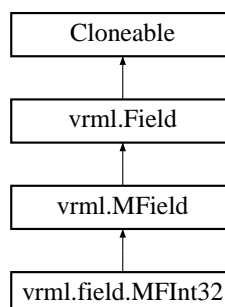
Definition at line 3 of file MFInt32.java.

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

- src/java/org/web3d/x3d/sai/MFInt32.java

## 4.503 vrml.field.MFInt32 Class Reference

Inheritance diagram for vrml.field.MFInt32:



## Public Member Functions

- **MInt32** (int[] value)
- **MInt32** (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, **SInt32** sInt32)
- void **set1Value** (int index, **ConstSInt32** sInt32)
- void **addValue** (int value)
- void **addValue** ( **SInt32** sInt32)
- void **addValue** ( **ConstSInt32** sInt32)
- void **insertValue** (int index, int value)
- void **insertValue** (int index, **SInt32** sInt32)
- void **insertValue** (int index, **ConstSInt32** sInt32)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.503.1 Detailed Description

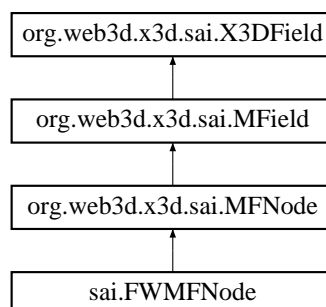
Definition at line 10 of file MInt32.java.

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

- src/java/vrml/field/MInt32.java

## 4.504 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)

### 4.504.1 Detailed Description

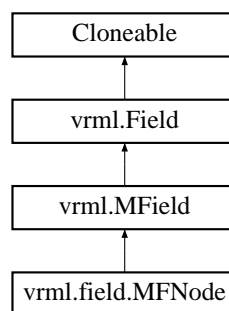
Definition at line 3 of file MFNode.java.

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

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

## 4.505 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

### 4.505.1 Detailed Description

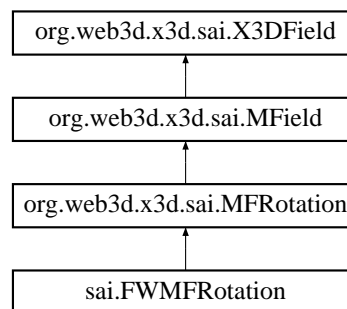
Definition at line 10 of file MFNode.java.

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

- src/java/vrml/field/MFNode.java

## 4.506 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)

### 4.506.1 Detailed Description

Definition at line 3 of file MFRotation.java.

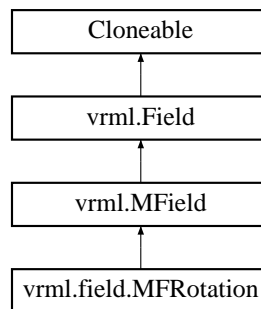
The documentation for this interface was generated from the following file:

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



## 4.507 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

#### 4.507.1 Detailed Description

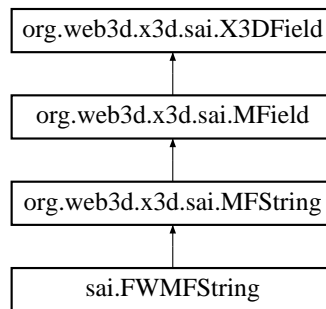
Definition at line 10 of file MFRotation.java.

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

- src/java/vrml/field/MFRotation.java

## 4.508 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)

### 4.508.1 Detailed Description

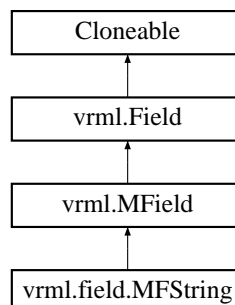
Definition at line 3 of file MFString.java.

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

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

## 4.509 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

### 4.509.1 Detailed Description

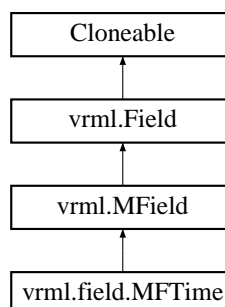
Definition at line 10 of file MFString.java.

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

- src/java/vrml/field/MFString.java

## 4.510 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

### 4.510.1 Detailed Description

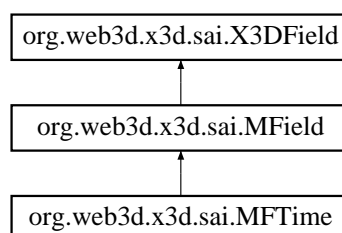
Definition at line 10 of file MFTIME.java.

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

- src/java/vrml/field/MFTIME.java

## 4.511 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)

### 4.511.1 Detailed Description

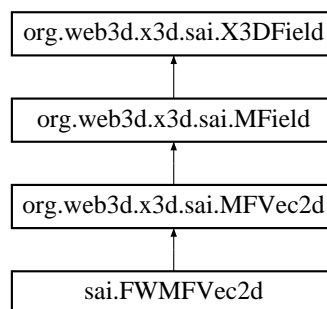
Definition at line 3 of file MFTIME.java.

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

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

## 4.512 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)

### 4.512.1 Detailed Description

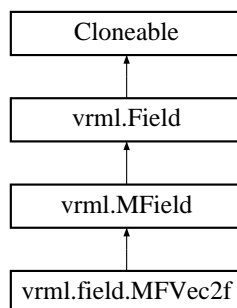
Definition at line 3 of file MFVec2d.java.

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

- src/java/org/web3d/x3d/sai/MFVec2d.java

## 4.513 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

### 4.513.1 Detailed Description

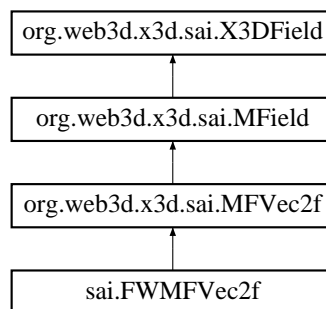
Definition at line 10 of file MFVec2f.java.

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

- src/java/vrml/field/MFVec2f.java

## 4.514 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)

### 4.514.1 Detailed Description

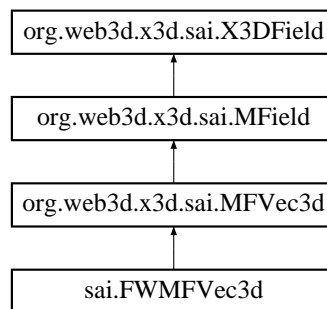
Definition at line 3 of file MFVec2f.java.

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

- src/java/org/web3d/x3d/sai/MFVec2f.java

## 4.515 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)

### 4.515.1 Detailed Description

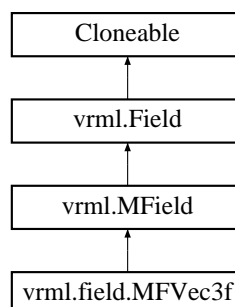
Definition at line 3 of file MFVec3d.java.

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

- src/java/org/web3d/x3d/sai/MFVec3d.java

## 4.516 vrml.field.MFVec3f Class Reference

Inheritance diagram for vrml.field.MFVec3f:





## Public Member Functions

- **MFVec3f** (float[] vec3fs)
- **MFVec3f** (int size, float[] vec3fs)
- **MFVec3f** (float[][] vec3fs)
- void **getValue** (float[] vec3fs)
- void **getValue** (float[][] vec3fs)
- void **get1Value** (int index, float[] vec3fs)
- void **get1Value** (int index, **SFVec3f** sfVec3f)
- void **setValue** (float[] vec3fs)
- void **setValue** (int size, float[] vec3fs)
- void **set1Value** (int index, float x, float y, float z)
- void **set1Value** (int index, **SFVec3f** sfVec3f)
- void **set1Value** (int index, **ConstSFVec3f** sfVec3f)
- void **addValue** (float x, float y, float z)
- void **addValue** ( **SFVec3f** sfVec3f)
- void **addValue** ( **ConstSFVec3f** sfVec3f)
- void **insertValue** (int index, float x, float y, float z)
- void **insertValue** (int index, **SFVec3f** sfVec3f)
- void **insertValue** (int index, **ConstSFVec3f** sfVec3f)
- String **toString** ()
- void **\_\_fromPerl** (BufferedReader in) throws IOException
- void **\_\_toPerl** (PrintWriter out) throws IOException

## Additional Inherited Members

### 4.516.1 Detailed Description

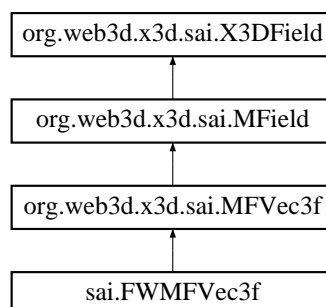
Definition at line 10 of file MFVec3f.java.

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

- src/java/vrml/field/MFVec3f.java

## 4.517 org.web3d.x3d.sai.MFVec3f Interface Reference

Inheritance diagram for org.web3d.x3d.sai.MFVec3f:



## Public Member Functions

- void **getValue** (float[ ][ ] value)
- void **getValue** (float[ ] value)
- void **get1Value** (int index, float[ ] value)
- void **setValue** (int size, float[ ] value)
- void **setValue** (int size, float[ ][ ] value)
- void **set1Value** (int index, float[ ] value)
- void **append** (float[ ] value)
- void **insertValue** (int index, float[ ] value)

### 4.517.1 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

## 4.518 mode\_name Struct Reference

### Data Fields

- int **mode**
- const char \* **name**

### 4.518.1 Detailed Description

Definition at line 167 of file X3DParser.c.

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

- src/lib/x3d\_parser/X3DParser.c

## 4.519 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**

#### 4.519.1 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

## 4.520 Monotonizer Class Reference

### Public Member Functions

- **Monotonizer** ( **ArcTessellator** &at, **Pool** &ap, **Pool** &p, jmp\_buf &j)
- int **decompose** ( **Bin** &, REAL)

### 4.520.1 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`

## 4.521 `motion_vectors_entry` Struct Reference

### Data Fields

- `int code`
- `int num_bits`

### 4.521.1 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`

## 4.522 `Multi_Any` Struct Reference

### Data Fields

- `int n`
- `char * p`

### 4.522.1 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`

## 4.523 `Multi_Bool` Struct Reference

### Data Fields

- `int n`
- `int * p`
- `size_t n`

### 4.523.1 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

## 4.524 Multi\_Color Struct Reference

### Data Fields

- int **n**
- struct **SFColor** \* **p**
- size\_t **n**

### 4.524.1 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

## 4.525 Multi\_ColorRGBA Struct Reference

### Data Fields

- int **n**
- struct **SFColorRGBA** \* **p**
- size\_t **n**

### 4.525.1 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

## 4.526 Multi\_Double Struct Reference

### Data Fields

- int **n**
- double \* **p**
- size\_t **n**

### 4.526.1 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

## 4.527 Multi\_Float Struct Reference

### Data Fields

- int **n**
- float \* **p**
- size\_t **n**

### 4.527.1 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

## 4.528 Multi\_Int32 Struct Reference

### Data Fields

- int **n**
- int \* **p**
- size\_t **n**

#### 4.528.1 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

### 4.529 Multi\_Matrix3d Struct Reference

#### Data Fields

- int **n**
- struct **SFMatrix3d** \* **p**
- size\_t **n**

#### 4.529.1 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

### 4.530 Multi\_Matrix3f Struct Reference

#### Data Fields

- int **n**
- struct **SFMatrix3f** \* **p**
- size\_t **n**

#### 4.530.1 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

## 4.531 Multi\_Matrix4d Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix4d** \* **p**
- size\_t **n**

### 4.531.1 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

## 4.532 Multi\_Matrix4f Struct Reference

### Data Fields

- int **n**
- struct **SFMatrix4f** \* **p**
- size\_t **n**

### 4.532.1 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

## 4.533 Multi\_Node Struct Reference

### Data Fields

- int **n**
- struct **X3D\_Node** \*\* **p**
- size\_t **n**
- void \*\* **p**



### 4.533.1 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

## 4.534 Multi\_Rotation Struct Reference

### Data Fields

- int **n**
- struct **SFRotation** \* **p**
- size\_t **n**

### 4.534.1 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

## 4.535 Multi\_String Struct Reference

### Data Fields

- int **n**
- struct **Uni\_String** \*\* **p**
- size\_t **n**

### 4.535.1 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

## 4.536 Multi\_Time Struct Reference

### Data Fields

- int **n**
- double \* **p**
- size\_t **n**

### 4.536.1 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

## 4.537 Multi\_Vec2d Struct Reference

### Data Fields

- int **n**
- struct **SFVec2d** \* **p**
- size\_t **n**

### 4.537.1 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

## 4.538 Multi\_Vec2f Struct Reference

### Data Fields

- int **n**
- struct **SFVec2f** \* **p**
- size\_t **n**

#### 4.538.1 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

### 4.539 Multi\_Vec3d Struct Reference

#### Data Fields

- int **n**
- struct **SFVec3d** \* **p**
- size\_t **n**

#### 4.539.1 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

### 4.540 Multi\_Vec3f Struct Reference

#### Data Fields

- int **n**
- struct **SFVec3f** \* **p**
- size\_t **n**
- struct **SFColor** \* **p**

#### 4.540.1 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

## 4.541 Multi\_Vec4d Struct Reference

### Data Fields

- int **n**
- struct **SFVec4d** \* **p**
- size\_t **n**

### 4.541.1 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

## 4.542 Multi\_Vec4f Struct Reference

### Data Fields

- int **n**
- struct **SFVec4f** \* **p**
- size\_t **n**

### 4.542.1 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

## 4.543 multiTexParams Struct Reference

### Data Fields

- int **multitex\_mode** [2]
- int **multitex\_source** [2]
- int **multitex\_function**

#### 4.543.1 Detailed Description

Definition at line 121 of file OpenGL\_Utils.h.

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

- src/lib/opengl/OpenGL\_Utils.h

### 4.544 myArgs Struct Reference

#### Data Fields

- struct **X3D\_Node** \* **node**
- **ttglobal** **tg**

#### 4.544.1 Detailed Description

Definition at line 162 of file Component\_ProgrammableShaders.c.

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

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

### 4.545 MyVertex Struct Reference

#### Data Fields

- struct **SFVec3f** **vert**
- struct **SFVec3f** **norm**
- struct **SFVec2f** **tc**
- struct **SFVec3f** **flat\_norm**
- struct **SFColorRGBA** **col**

#### 4.545.1 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

## 4.546 name\_num Struct Reference

### Data Fields

- char \* **facename**
- char \* **family**
- char \* **style**
- char \* **style2**
- int **num**
- int **bold**
- int **italic**
- int **ifamily**

### 4.546.1 Detailed Description

Definition at line 613 of file Component\_Text.c.

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

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

## 4.547 nameValuePairs Struct Reference

### Data Fields

- char \* **fieldName**
- char \* **fieldValue**
- int **fieldType**

### 4.547.1 Detailed Description

Definition at line 32 of file X3DParser.h.

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

- src/lib/x3d\_parser/X3DParser.h

## 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.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

### 4.549.1 Detailed Description

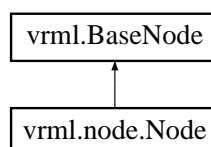
Definition at line 11 of file Node.java.

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

- src/java/vrml/external/Node.java

## 4.550 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)

### 4.550.1 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

## 4.551 nodedistance Struct Reference

### Data Fields

- struct **X3D\_Node** \* **node**
- float **dist**

### 4.551.1 Detailed Description

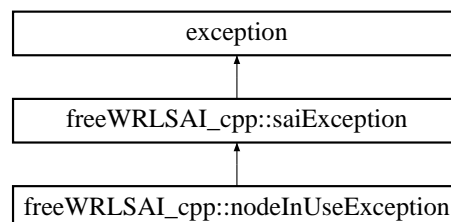
Definition at line 55 of file Component\_Picking.c.

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

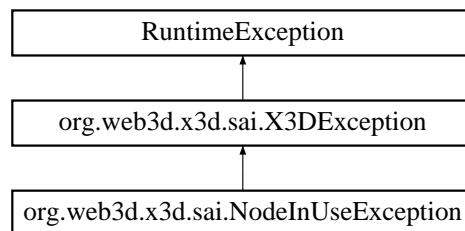
Definition at line 206 of file SAException.h.

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

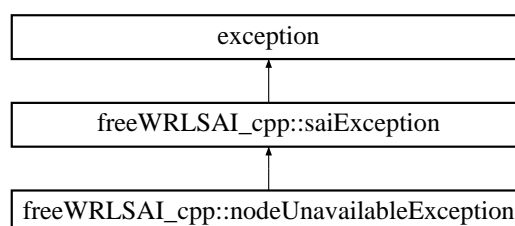
Definition at line 3 of file NodeInUseException.java.

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

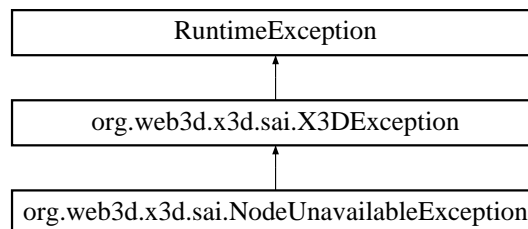
Definition at line 195 of file SAException.h.

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

- src/SAI\_Cpp/SAException.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

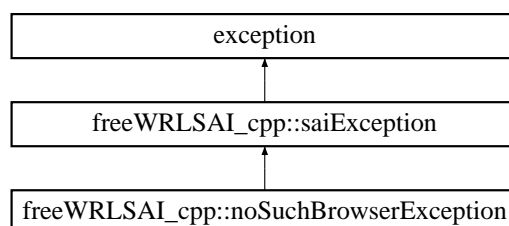
Definition at line 3 of file NodeUnavailableException.java.

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

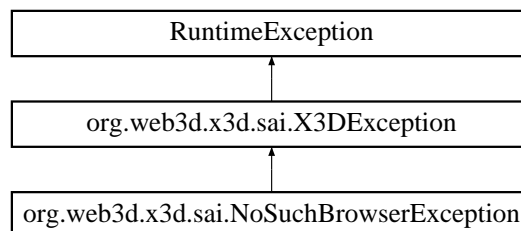
Definition at line 73 of file SAlexception.h.

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

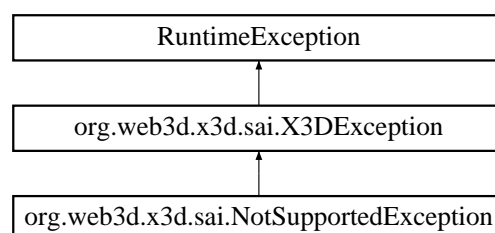
Definition at line 3 of file NoSuchBrowserException.java.

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

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

## 4.558 org.web3d.x3d.sai.NotSupportedException Class Reference

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



## Public Member Functions

- **NotSupportedException** (String msg)

### 4.558.1 Detailed Description

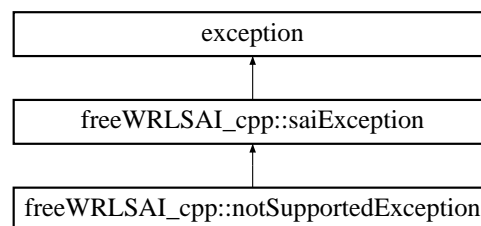
Definition at line 3 of file NotSupportedException.java.

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

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

## 4.559 freeWRLSAI\_cpp::notSupportedException Class Reference

Inheritance diagram for freeWRLSAI\_cpp::notSupportedException:



## Public Member Functions

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

## Additional Inherited Members

### 4.559.1 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

## 4.560 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

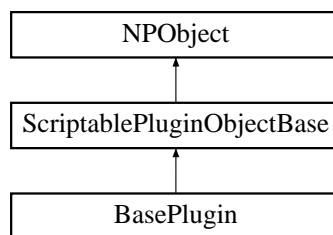
Definition at line 327 of file npruntime.h.

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

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

## 4.561 NPObject Struct Reference

Inheritance diagram for NPObject:



### 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

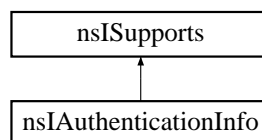
Definition at line 126 of file nsFileUtilities.idl.

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

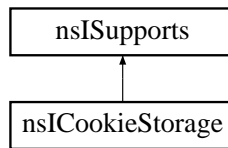
Definition at line 56 of file nsJVMAuthTools.idl.

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

- src/plugin\_win32/include/nsJVMAuthTools.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:

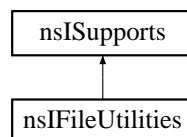
- src/plugin\_win32/include/nsICookieStorage.idl

## 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 **nsIFileUtilities** (p. 362) interface provides access to random file operations.

To obtain: QueryInterface on **nsIPluginManager** (p. 399).

Definition at line 50 of file nsIFileUtilities.idl.



## 4.565.2 Member Function Documentation

### 4.565.2.1 getProgramPath()

```
void nsIFileUtilities::getProgramPath (
    out constCharPtr aProgramPath )
```

Returns the name of the browser executable program.

**Parameters**

<i>aProgramPath</i>	- the returned path to the program
---------------------	------------------------------------

**Returns**

- NS\_OK if this operation was successful

**4.565.2.2 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 nsFileUtilities::newTempFileName (
    in string aPrefix,
    in unsigned long aLength,
    in charPtr aBuffer )
```

Returns a unique temporary file name.

**Parameters**

<i>aPrefix</i>	- a string to prefix to the temporary file name
<i>aLength</i>	- the length of the resulting buffer to receive the data
<i>aBuffer</i>	- the returned temp file name

**Returns**

- NS\_OK if this operation was successful

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

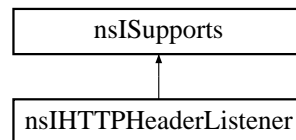
- src/plugin\_win32/include/nsFileUtilities.idl

## 4.566 nsIHTTPHeaderListener Interface Reference

The **nsIHTTPHeaderListener** (p. 365) 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. 365) 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. 365). 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. 365).

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.

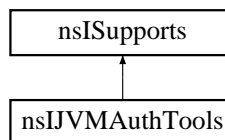
Value does NOT include a terminating newline. NOTE: You must copy this value.

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><i>nsIAuthenticationInfo</i></b> (p. 360)	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

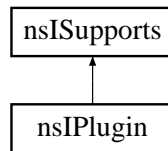
NS\_OK if success, other if fail

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

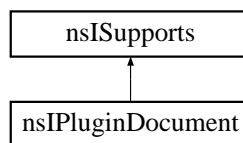
- NS\_OK if this operation was successful

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.

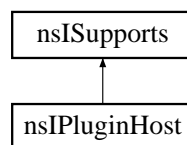
Definition at line 60 of file nsIPluginDocument.idl.

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

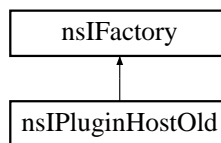
<i>reloadPages</i>	- indicates whether currently visible pages should also be reloaded
--------------------	---

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:

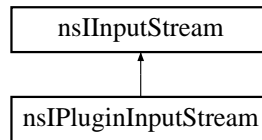
- src/plugin\_win32/include/nsIPluginHostOld.idl

## 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 ...

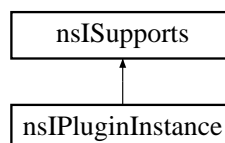
Definition at line 45 of file nsIPluginInputStream.idl.

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

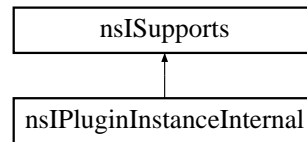
Definition at line 192 of file nsIPluginInstance.idl.

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

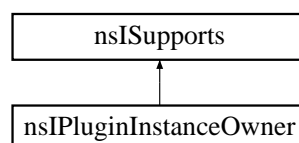
Definition at line 96 of file nsIPluginInstanceOld.idl.

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:

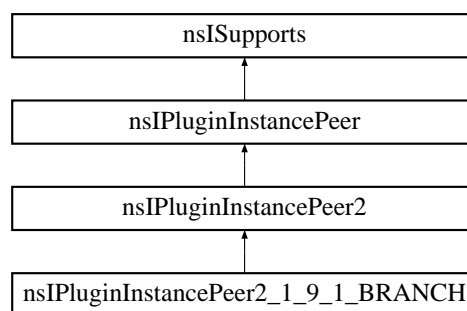
- src/plugin\_win32/include/nsIPluginInstancePeer.idl

## 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

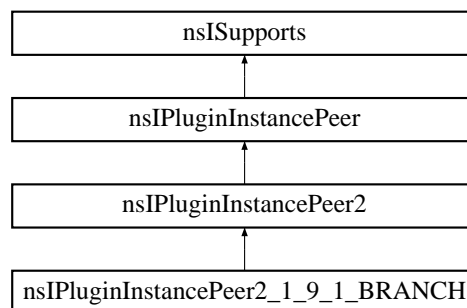
Definition at line 73 of file nsIPluginInstancePeer2.idl.

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

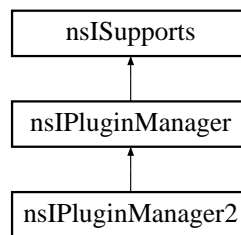
Definition at line 94 of file nsIPluginInstancePeer2.idl.

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:

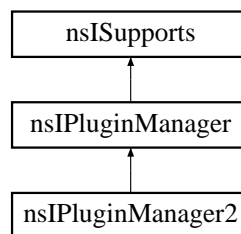
- src/plugin\_win32/include/nsIPluginManager.idl

## 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:

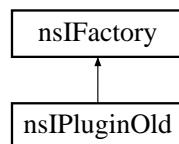
- src/plugin\_win32/include/nsIPluginManager2.idl

## 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:

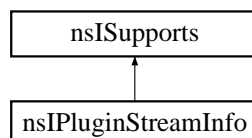
- src/plugin\_win32/include/nsIPluginOld.idl

**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:

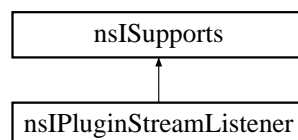
- src/plugin\_win32/include/nsIPluginStreamInfo.idl

## 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
--------------------	--------------------------

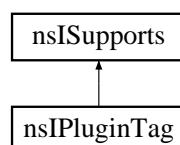
Definition at line 118 of file nsIPluginStreamListener.idl.

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:

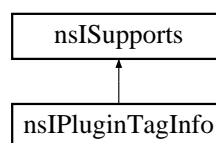
- src/plugin\_win32/include/nsIPluginTag.idl

## 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:

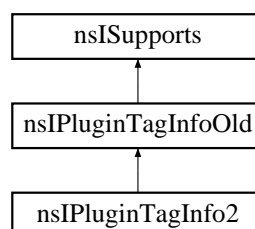
- src/plugin\_win32/include/nsIPluginTagInfo.idl

## 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:

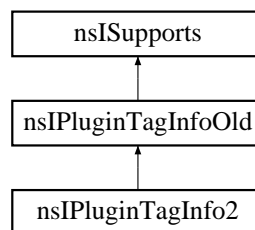
- src/plugin\_win32/include/nsIPluginTagInfo2.idl

## 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:

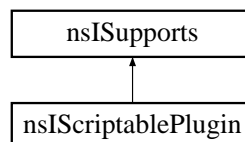
- src/plugin\_win32/include/nsIPluginTagInfoOld.idl

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.

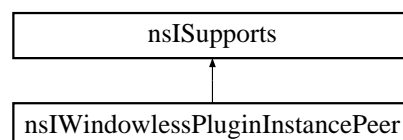
Definition at line 51 of file nsIScriptablePlugin.idl.

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

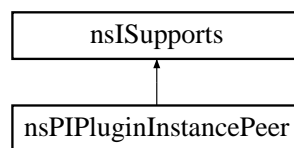
Definition at line 46 of file nsIWindowlessPlugInstPeer.idl.

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:

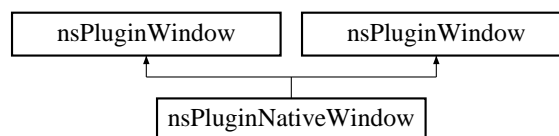
- src/plugin\_win32/include/nsPluginLogging.h

## 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

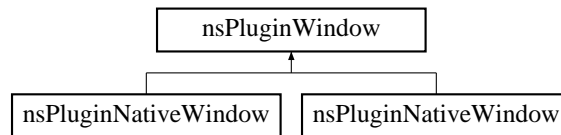
Definition at line 132 of file nsFileUtilities.idl.

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

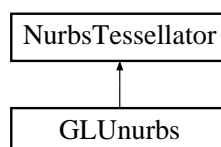
Definition at line 289 of file `nsFileUtilities.idl`.

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

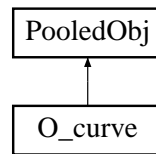
Definition at line 53 of file nurbstess.h.

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

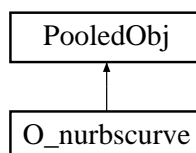
Definition at line 55 of file reader.h.

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

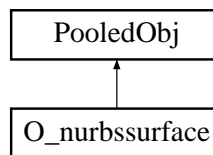
Definition at line 70 of file reader.h.

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.

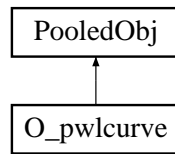
The documentation for this struct was generated from the following file:

- 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

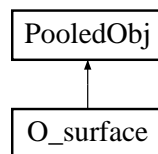
Definition at line 83 of file reader.h.

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

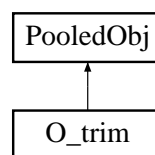
Definition at line 112 of file reader.h.

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

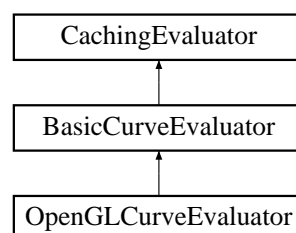
Definition at line 94 of file reader.h.

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

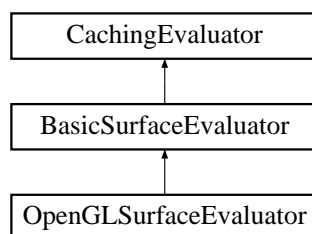
Definition at line 67 of file glcurveval.h.

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

- 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

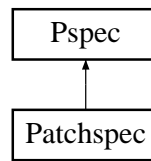
Definition at line 45 of file patchlist.h.

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 1156 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 274 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 225 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 69 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 59 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**
- char **EAIListenerData** [8192]

### 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 2979 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/OpenGL/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 2986 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 931 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

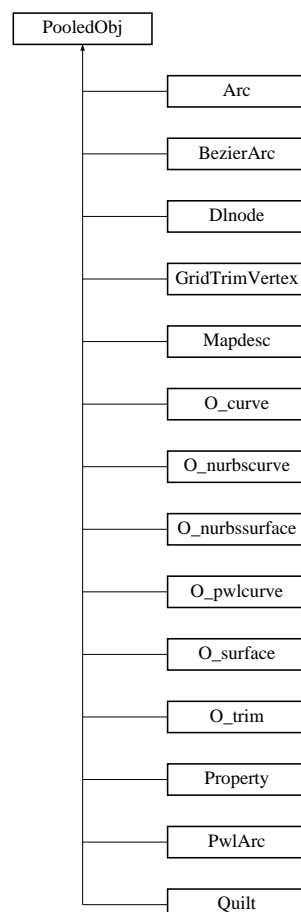
Definition at line 50 of file bufpool.h.

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 180 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 49 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

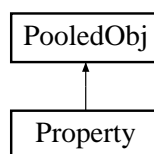
Definition at line 236 of file capabilitiesHandler.c.

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 \*/

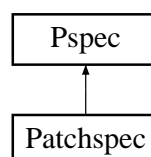
Definition at line 75 of file Snapshot.c.

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 89 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

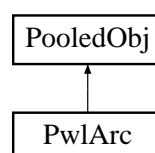
Definition at line 78 of file Viewer.c.

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 278 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

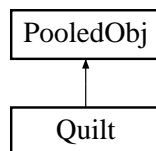
Definition at line 70 of file quaternion.h.

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 \* **openned\_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

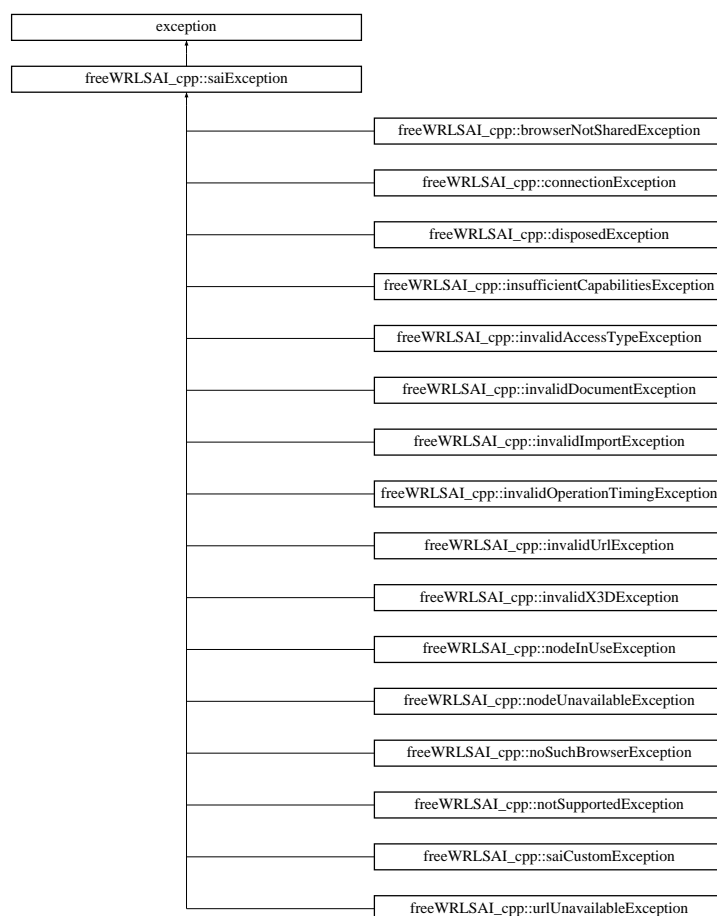
Definition at line 310 of file SAException.h.

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 SAIExecutionContext.h.

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

- src/SAI\_Cpp/SAIExecutionContext.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

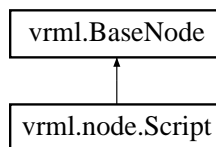
Definition at line 222 of file Component\_Text.c.

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

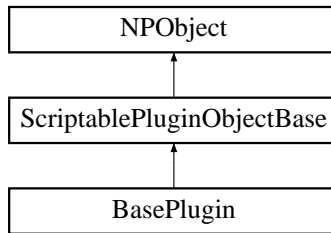
Definition at line 10 of file Script.java.

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** ( **NPObject** \*npobj)
- static void **\_Invalidate** ( **NPObject** \*npobj)
- static bool **\_HasMethod** ( **NPObject** \*npobj, NPIdentifier name)
- static bool **\_Invoke** ( **NPObject** \*npobj, NPIdentifier name, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)
- static bool **\_InvokeDefault** ( **NPObject** \*npobj, const **NPVariant** \*args, uint32\_t argCount, **NPVariant** \*result)
- static bool **\_HasProperty** ( **NPObject** \*npobj, NPIdentifier name)
- static bool **\_GetProperty** ( **NPObject** \*npobj, NPIdentifier name, **NPVariant** \*result)
- static bool **\_SetProperty** ( **NPObject** \*npobj, NPIdentifier name, const **NPVariant** \*value)
- static bool **\_RemoveProperty** ( **NPObject** \*npobj, NPIdentifier name)
- static bool **\_Enumerate** ( **NPObject** \*npobj, NPIdentifier \*\*identifier, uint32\_t \*count)
- static bool **\_Construct** ( **NPObject** \*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 128 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** **pen correction**
- double **pendisp**

### 4.728.1 Detailed Description

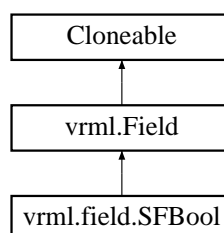
Definition at line 137 of file Collision.h.

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

- src/lib/scenegraph/Collision.h

## 4.729 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

### 4.729.1 Detailed Description

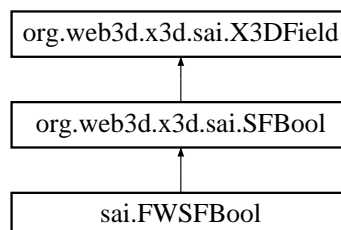
Definition at line 10 of file SFBool.java.

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

- src/java/vrml/field/SFBool.java

## 4.730 org.web3d.x3d.sai.SFBool Interface Reference

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



## Public Member Functions

- boolean **getValue** ()
- void **setValue** (boolean value)

### 4.730.1 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



## 4.731 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

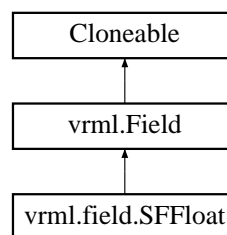
Definition at line 3 of file SFDouble.java.

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

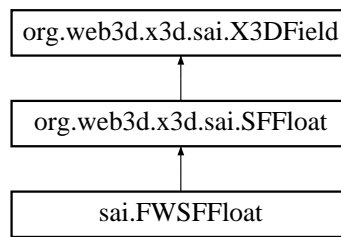
Definition at line 10 of file SFFloat.java.

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

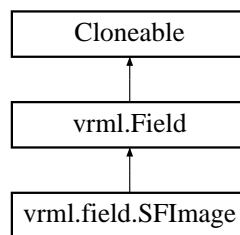
Definition at line 3 of file SFFloat.java.

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

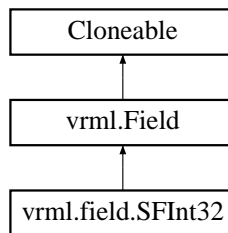
Definition at line 3 of file SFIImage.java.

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

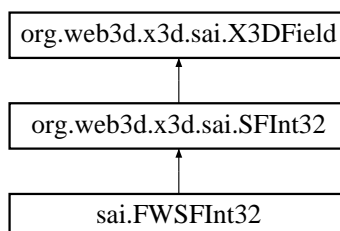
Definition at line 10 of file SFInt32.java.

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

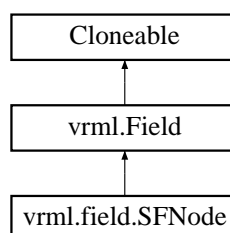
Definition at line 2481 of file Structs.h.

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

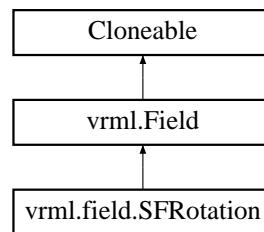
Definition at line 3 of file SFNode.java.

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

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

## 4.749 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

#### 4.749.1 Detailed Description

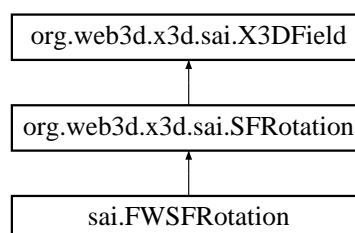
Definition at line 10 of file SFRotation.java.

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

- src/java/vrml/field/SFRotation.java

## 4.750 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)

### 4.750.1 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

## 4.751 SFRotation Struct Reference

### Data Fields

- float **c** [4]
- float **r** [4]

### 4.751.1 Detailed Description

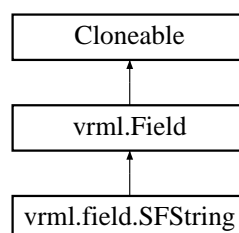
Definition at line 2451 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.752 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

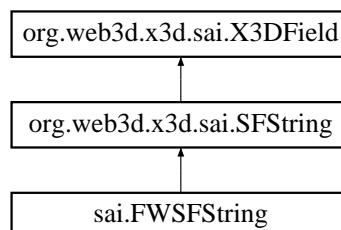
Definition at line 10 of file SFString.java.

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

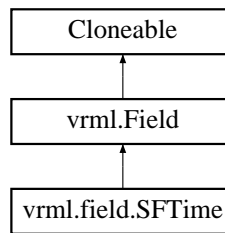
Definition at line 3 of file SFString.java.

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

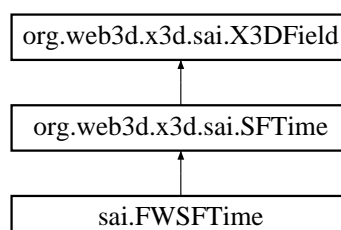
Definition at line 10 of file SFTime.java.

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 SFVec2d Struct Reference

### Data Fields

- double **c** [2]

### 4.756.1 Detailed Description

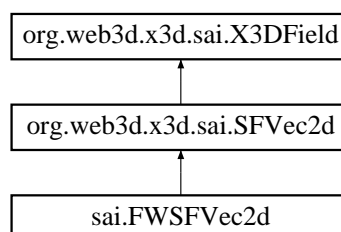
Definition at line 2485 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.757 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)

### 4.757.1 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

## 4.758 SFVec2f Struct Reference

### Data Fields

- float **c** [2]

### 4.758.1 Detailed Description

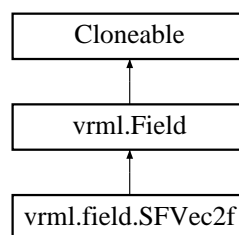
Definition at line 2469 of file Structs.h.

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

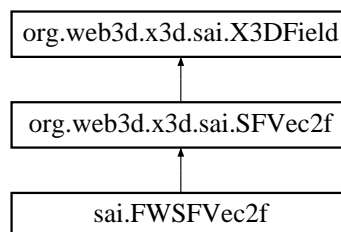
Definition at line 10 of file SFVec2f.java.

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 SFVec3d Struct Reference

### Data Fields

- double **c** [3]

### 4.761.1 Detailed Description

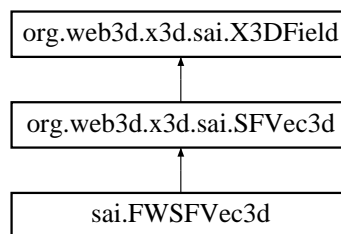
Definition at line 2473 of file Structs.h.

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

- src/lib/vrml\_parser/Structs.h
- src/libeai/EAI\_C.h

## 4.762 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)

### 4.762.1 Detailed Description

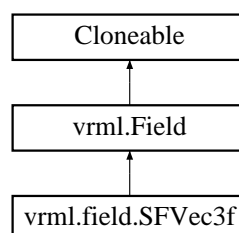
Definition at line 3 of file SFVec3d.java.

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

- src/java/org/web3d/x3d/sai/SFVec3d.java

## 4.763 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

### 4.763.1 Detailed Description

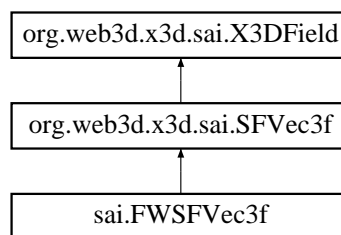
Definition at line 10 of file SFVec3f.java.

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

- src/java/vrml/field/SFVec3f.java

## 4.764 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)

### 4.764.1 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

## 4.765 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

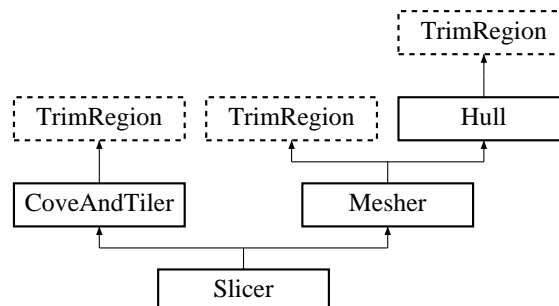
Definition at line 150 of file mpeg\_berkley.h.

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 sNavInfo 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

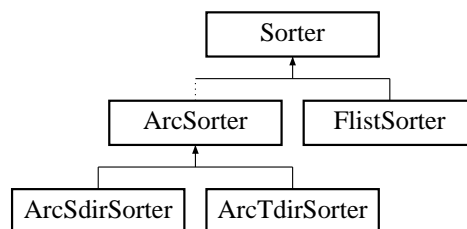
Definition at line 75 of file soundheader.h.

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 **qsex** (char \*i, char \*j)
- virtual void **qstex** (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 2121 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 2954 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 408 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 241 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 430 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 244 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 247 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 277 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 250 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 253 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 256 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 280 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 259 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 262 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 265 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 268 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 294 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 271 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 297 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 274 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 300 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 303 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.805 iiiglobal::tComponent\_Text Struct Reference

#### Data Fields

- void \* **prv**

#### 4.805.1 Detailed Description

Definition at line 309 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 315 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 312 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.808 iiglobal::tConsoleMessage Struct Reference

#### Data Fields

- int **consMsgCount**
- int **Console\_writeToHud**
- void \* **prv**

#### 4.808.1 Detailed Description

Definition at line 128 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 441 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 370 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.811 iiglobal::tCParseParser Struct Reference

### Data Fields

- void \* **prv**

### 4.811.1 Detailed Description

Definition at line 374 of file iiglobal.h.

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

- src/lib/iiglobal.h

## 4.812 iiglobal::tCRoutes Struct Reference

### Data Fields

- int **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 377 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 389 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 433 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::tEAICore Struct Reference

#### Data Fields

- char \* **EAIbuffer**
- int **EAIbufcount**
- int **EAIbufpos**
- int **EAIbufsize**
- char \* **EAIListenerData**
- 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 iiglobal.h.

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

- src/lib/iiglobal.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 iiglobal.h.

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

- src/lib/iiglobal.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 924 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 190 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 iglobal.h.

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

- src/lib/iglobal.h

## 4.825 iiglobal::tJScript Struct Reference

### Data Fields

- void \* **JSglobal\_return\_val**
- void \* **prv**

#### 4.825.1 Detailed Description

Definition at line 392 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.826 iiglobal::tjsUtils Struct Reference

#### Data Fields

- void \* **prv**

#### 4.826.1 Detailed Description

Definition at line 396 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.827 iiglobal::tjsVRMLBrowser Struct Reference

#### Data Fields

- void \* **JSCreate\_global\_return\_val**
- void \* **prv**

#### 4.827.1 Detailed Description

Definition at line 399 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.828 iiglobal::tjsVRMLClasses Struct Reference

#### Data Fields

- void \* **prv**

#### 4.828.1 Detailed Description

Definition at line 405 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.829 iiglobal::tLoadTextures Struct Reference

#### Data Fields

- void \* **prv**

#### 4.829.1 Detailed Description

Definition at line 194 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.830 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 * _stagesstack`
- `void * _framebufferstack`
- `int screenOrientation2`
- `int pickray_x`
- `int pickray_y`
- `float fieldOfView`

#### 4.832.1 Detailed Description

Definition at line 133 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.833 iiglobal::tOpenGL\_Utils Struct Reference

#### Data Fields

- int **displayDepth**
- int **cc\_changed**
- void \* **prv**

#### 4.833.1 Detailed Description

Definition at line 199 of file iglobal.h.

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

- src/lib/iglobal.h

### 4.834 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 149 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 235 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 238 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 166 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 318 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 759 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 220 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

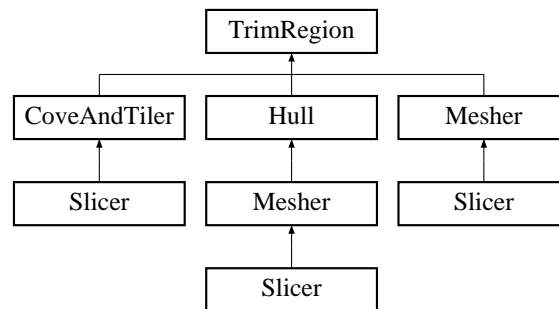
Definition at line 46 of file trimline.h.

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 125 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 367 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 353 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 356 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 225 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**
- int **MainLoopQuit**
- int **flushing**
- 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 363 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 423 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

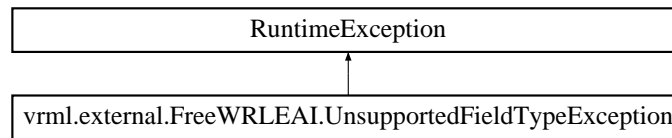
Definition at line 51 of file `Structs.h`.

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

- `src/lib/vrml_parser/Structs.h`
- `src/libeai/EAI_C.h`

## 4.859 vrml.external.FreeWRLEAI.UnsupportedFieldTypeException Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.UnsupportedFieldTypeException:



### Public Member Functions

- **UnsupportedFieldTypeException** (String str)

### 4.859.1 Detailed Description

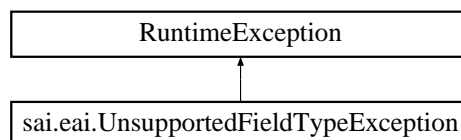
Definition at line 19 of file `UnsupportedFieldTypeException.java`.

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

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

## 4.860 sai.eai.UnsupportedFieldTypeException Class Reference

Inheritance diagram for sai.eai.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/sai/eai/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

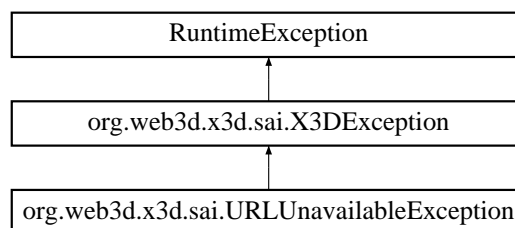
Definition at line 103 of file unzip.h.

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 2958 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 722 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

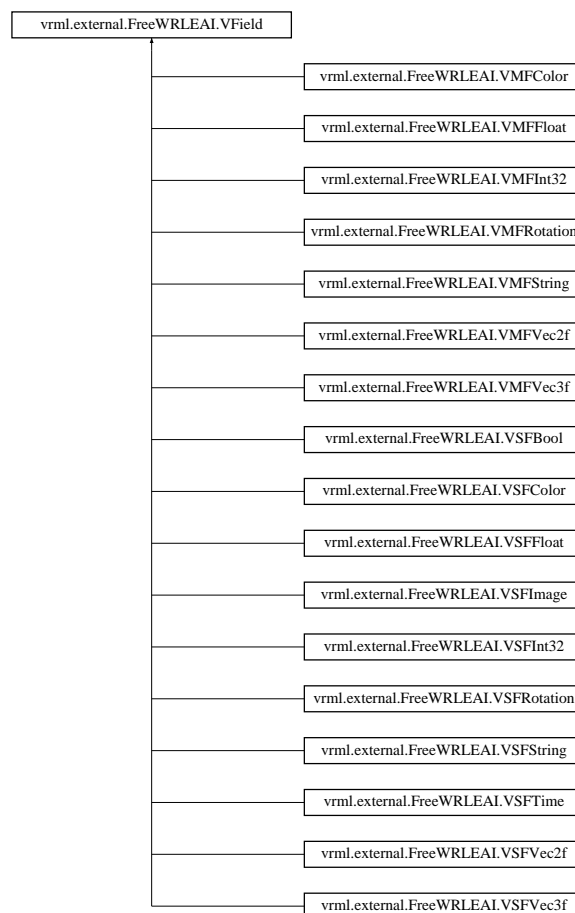
Definition at line 77 of file monoTriangulation.h.

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

- src/libnurbs/nurbtess/monoTriangulation.h
- src/libnurbs/nurbtess/monoTriangulation.cc

## 4.877 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

### 4.877.1 Detailed Description

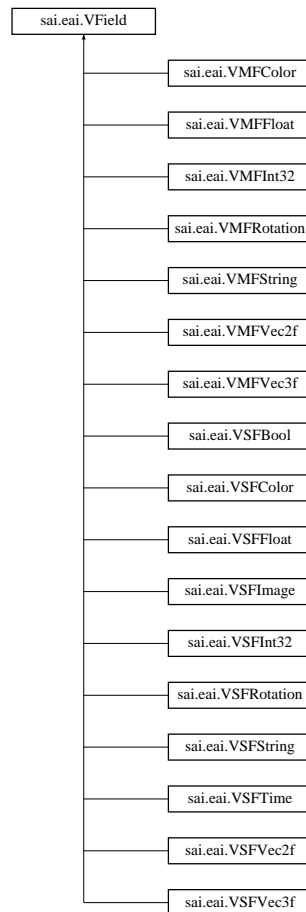
Definition at line 24 of file VField.java.

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

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

## 4.878 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

### 4.878.1 Detailed Description

Definition at line 24 of file VField.java.

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

- src/java/sai/eai/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 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

### 4.886.1 Detailed Description

Definition at line 19 of file VIP.java.

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

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

## 4.887 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 **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

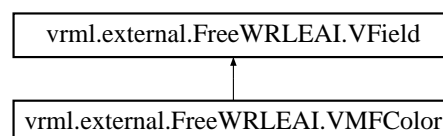
Definition at line 19 of file VIP.java.

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

- src/java/sai/eai/VIP.java

## 4.888 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

### 4.888.1 Detailed Description

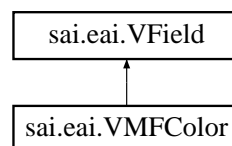
Definition at line 21 of file VMFColor.java.

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

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

## 4.889 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

### 4.889.1 Detailed Description

Definition at line 21 of file VMFColor.java.

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

- src/java/sai/eai/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

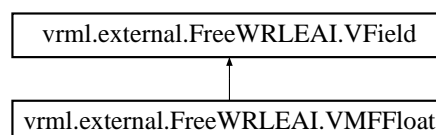
Definition at line 21 of file VMFFloat.java.

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

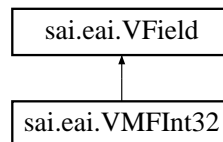
Definition at line 21 of file VMFFloat.java.

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

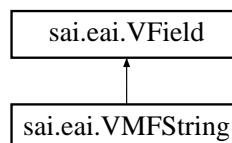
Definition at line 21 of file VMFRotation.java.

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

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

## 4.896 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

### 4.896.1 Detailed Description

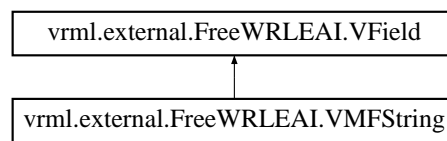
Definition at line 21 of file VMFString.java.

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

- src/java/sai/eai/VMFString.java

## 4.897 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

### 4.897.1 Detailed Description

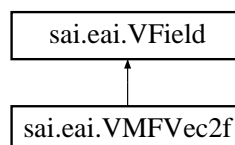
Definition at line 21 of file VMFString.java.

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

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

## 4.898 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

### 4.898.1 Detailed Description

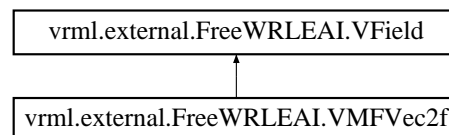
Definition at line 21 of file VMFVec2f.java.

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

- src/java/sai/eai/VMFVec2f.java

## 4.899 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

### 4.899.1 Detailed Description

Definition at line 21 of file VMFVec2f.java.

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

- src/java/vrml/external/FreeWRLEAI/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 664 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

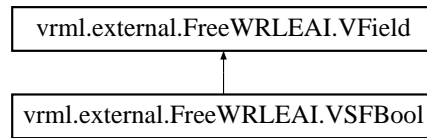
Definition at line 148 of file CParseParser.h.

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

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

## 4.909 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

#### 4.909.1 Detailed Description

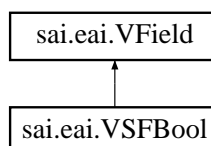
Definition at line 21 of file VSFBool.java.

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

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

## 4.910 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

### 4.910.1 Detailed Description

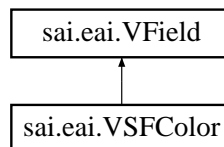
Definition at line 21 of file VSFBool.java.

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

- src/java/sai/eai/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

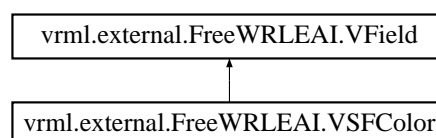
Definition at line 21 of file VSFCOLOR.java.

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

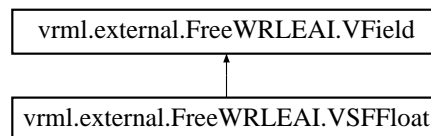
Definition at line 21 of file VSFColor.java.

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/VSFfloat.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

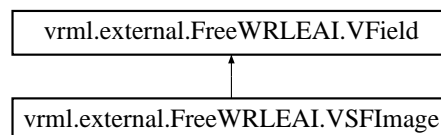
Definition at line 20 of file VSFFloat.java.

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

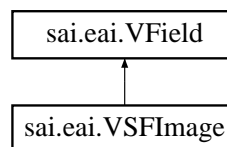
Definition at line 21 of file VSFImage.java.

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

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

## 4.916 sai.eai.VSFImage Class Reference

Inheritance diagram for sai.eai.VSFImage:



## Public Member Functions

- **VSFImage** (DataInputStream in) throws IOException
- void **write** (DataOutputStream out) throws IOException
- byte **getType** ()

## Additional Inherited Members

### 4.916.1 Detailed Description

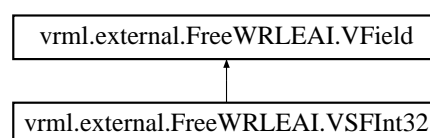
Definition at line 21 of file VSFImage.java.

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

- src/java/sai/eai/VSFImage.java

## 4.917 vrml.external.FreeWRLEAI.VSFInt32 Class Reference

Inheritance diagram for vrml.external.FreeWRLEAI.VSFInt32:



## Public Member Functions

- **VSField32** (DataInputStream in) throws IOException
- **VSField32** (int v)
- void **write** (DataOutputStream out) throws IOException
- int **getValue** ()
- byte **getType** ()

## Additional Inherited Members

### 4.917.1 Detailed Description

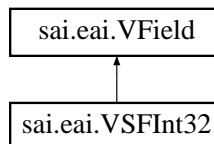
Definition at line 21 of file VSField32.java.

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

- src/java/vrml/external/FreeWRLEAI/VSField32.java

## 4.918 sai.eai.VSField32 Class Reference

Inheritance diagram for sai.eai.VSField32:



## Public Member Functions

- **VSField32** (DataInputStream in) throws IOException
- **VSField32** (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 VSField32.java.

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

- src/java/sai/eai/VSField32.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

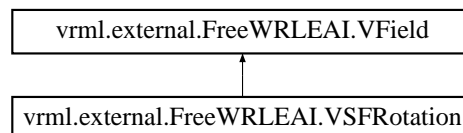
Definition at line 20 of file VSFRotation.java.

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

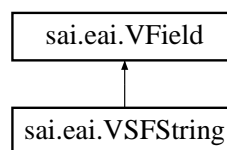
Definition at line 20 of file VSFRotation.java.

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

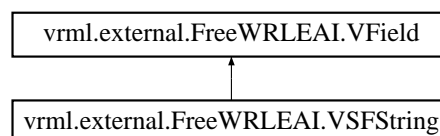
Definition at line 21 of file VSFString.java.

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.

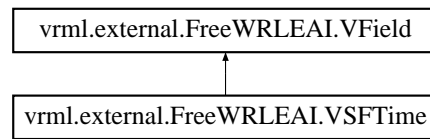
The documentation for this class was generated from the following file:

- 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

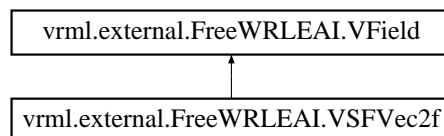
Definition at line 21 of file VSFTIME.java.

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

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

## 4.925 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

### 4.925.1 Detailed Description

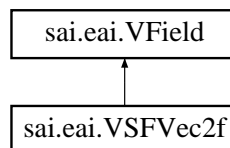
Definition at line 21 of file VSFVec2f.java.

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

- src/java/vrml/external/FreeWRLEAI/VSFVec2f.java

## 4.926 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

### 4.926.1 Detailed Description

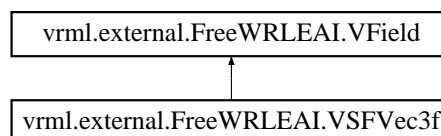
Definition at line 21 of file VSFVec2f.java.

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

- src/java/sai/eai/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\_MetadataSFMatrix3f Struct Reference

##### Data Fields

- int **\_nodeType**
- int **\_renderFlags**
- int **\_hit**
- int **\_change**
- int **\_ichange**
- struct **Vector** \* **\_parentVector**
- double **\_dist**
- float **\_extent** [6]
- struct **X3D\_PolyRep** \* **\_intern**
- int **referenceCount**
- int **\_defaultContainer**
- void \* **\_gc**
- struct **X3D\_Node** \* **\_executionContext**
- struct **SFMatrix3f** **value**
- struct **SFMatrix3f** **valueChanged**
- struct **SFMatrix3f** **setValue**
- double **tickTime**

#### 4.1085.1 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

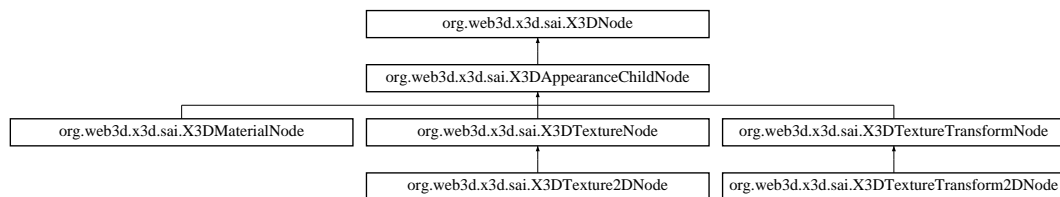
Definition at line 10639 of file Structs.h.

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

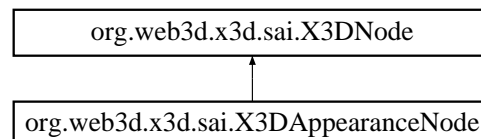
Definition at line 3 of file X3DAppearanceChildNode.java.

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

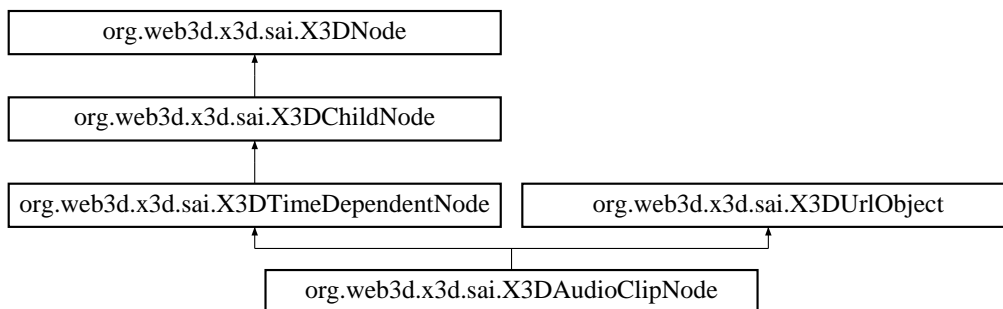
Definition at line 3 of file X3DAppearanceNode.java.

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

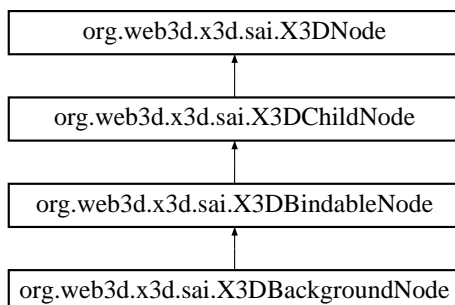
Definition at line 3 of file X3DAudioClipNode.java.

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

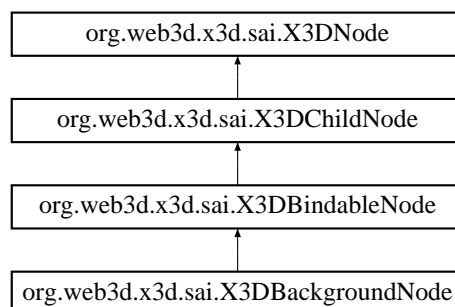
Definition at line 3 of file X3DBackgroundNode.java.

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

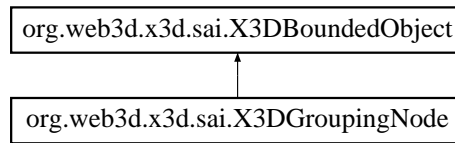
Definition at line 3 of file X3DBindableNode.java.

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

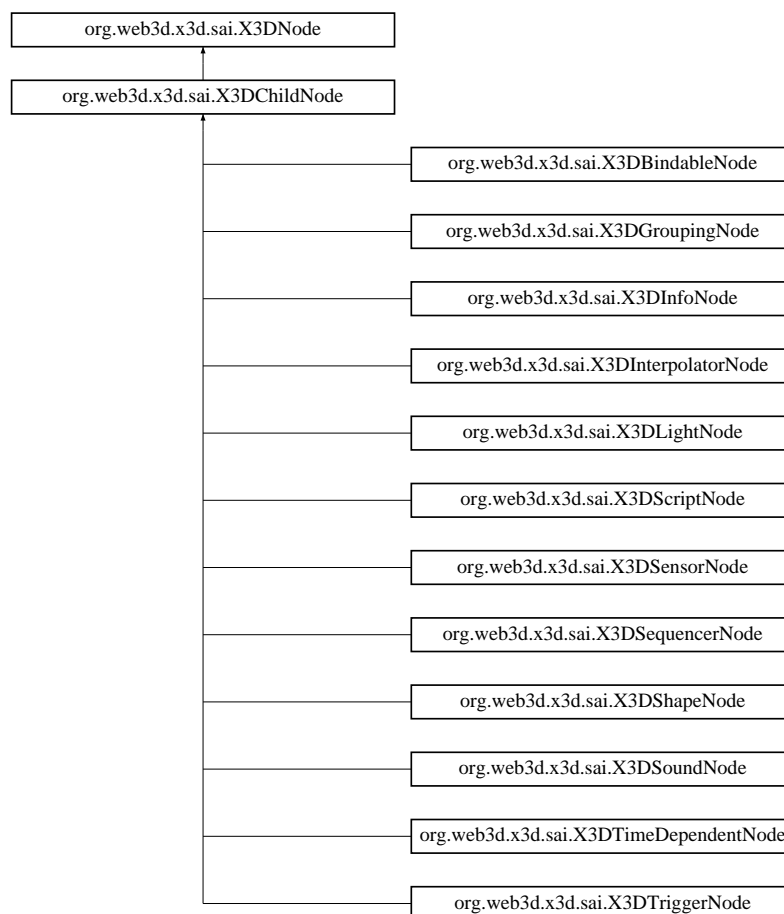
Definition at line 3 of file `X3DBoundedObject.java`.

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

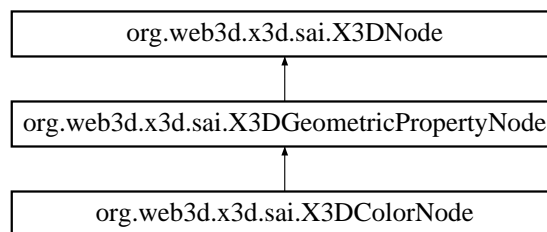
Definition at line 3 of file X3DChildNode.java.

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

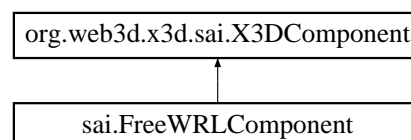
Definition at line 3 of file X3DColorNode.java.

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

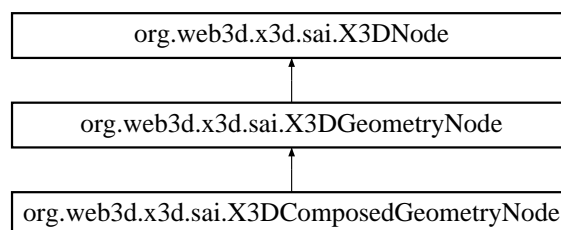
Definition at line 3 of file X3DComponent.java.

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

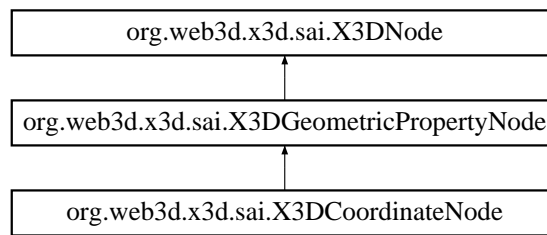
Definition at line 3 of file X3DComposedGeometryNode.java.

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

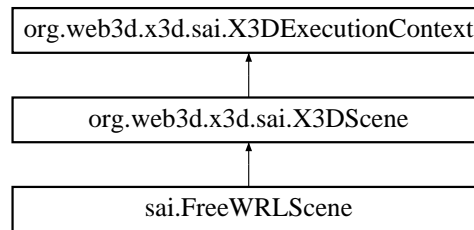
Definition at line 3 of file X3DException.java.

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

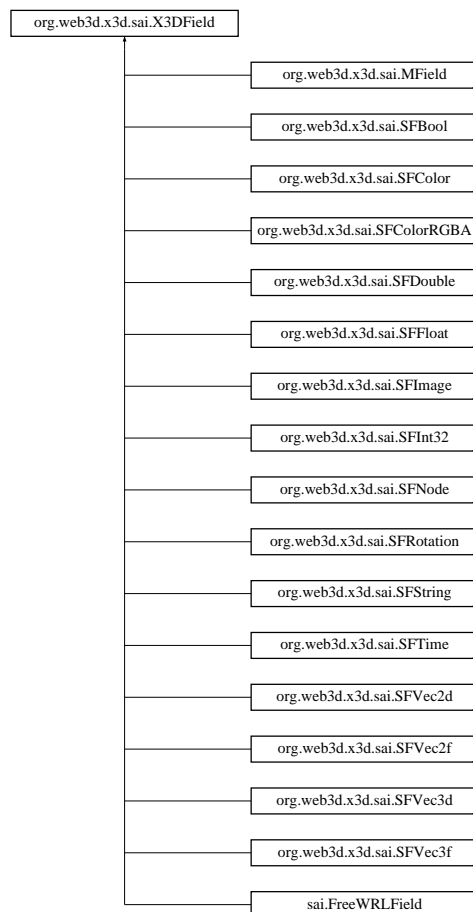
Definition at line 3 of file X3DExternProtoDeclaration.java.

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

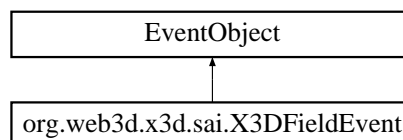
Definition at line 3 of file X3DFieldDefinition.java.

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

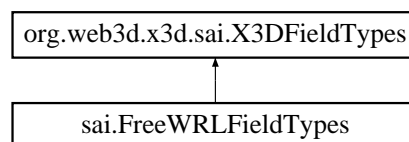
Definition at line 3 of file `X3DFieldEventListener.java`.

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

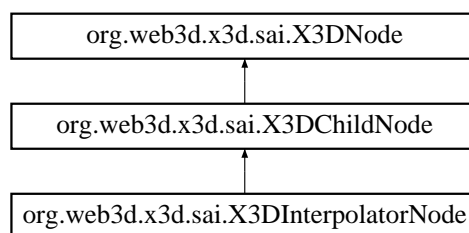
Definition at line 3 of file X3DInfoNode.java.

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

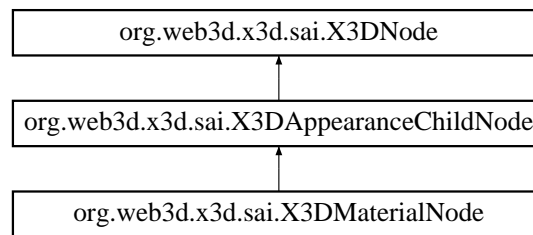
Definition at line 3 of file X3DLightNode.java.

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

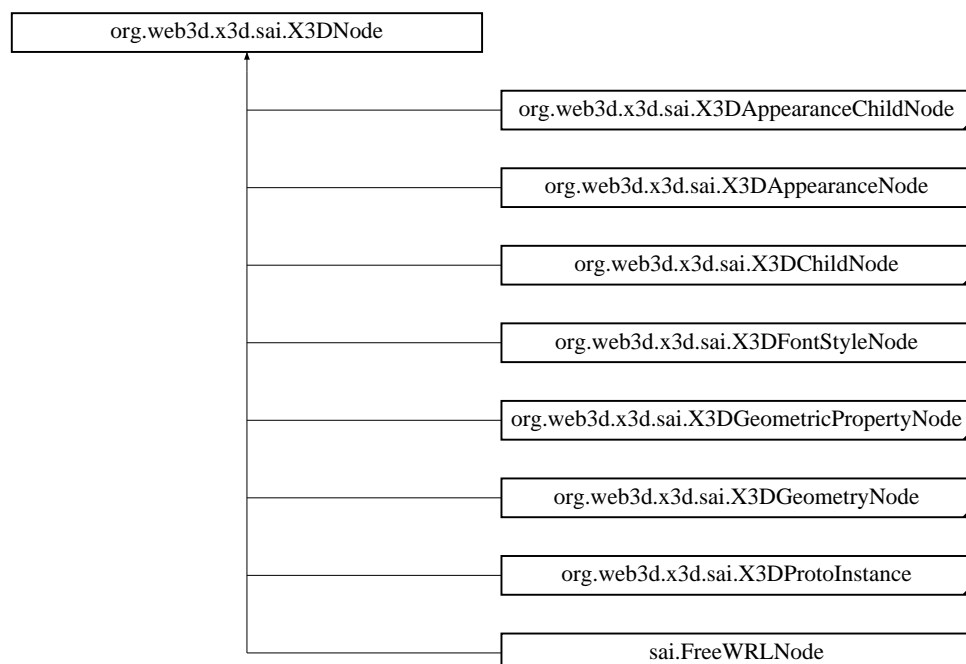
Definition at line 3 of file X3DNetworkSensorNode.java.

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

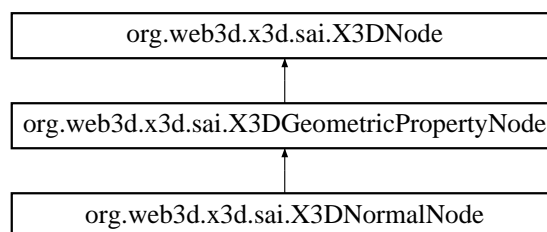
Definition at line 3 of file X3DNodeTypes.java.

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

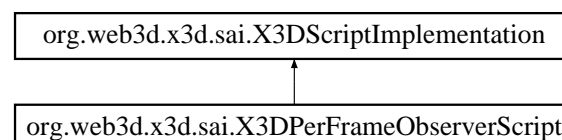
Definition at line 3 of file X3DParametricGeometryNode.java.

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

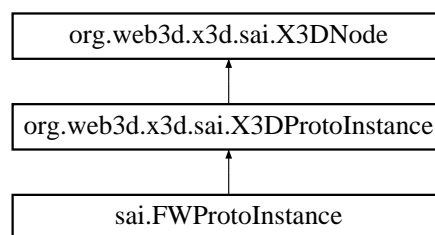
Definition at line 3 of file `X3DProtoDeclaration.java`.

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

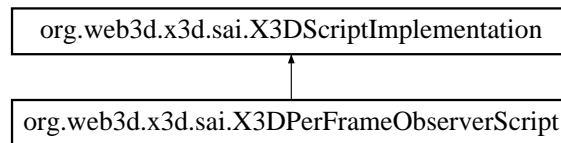
Definition at line 3 of file X3DScene.java.

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

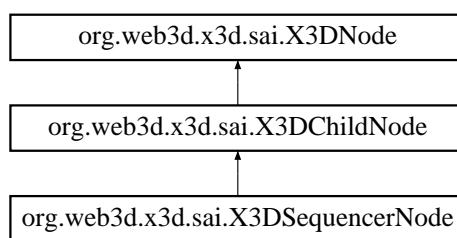
Definition at line 3 of file X3DSensorNode.java.

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

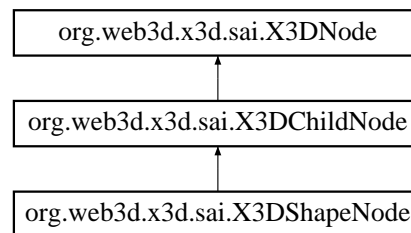
Definition at line 3 of file X3DSequencerNode.java.

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

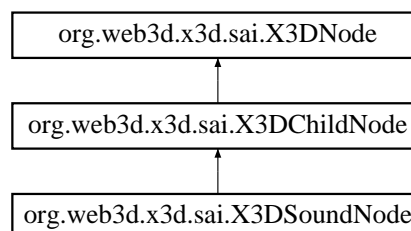
Definition at line 3 of file X3DShapeNode.java.

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

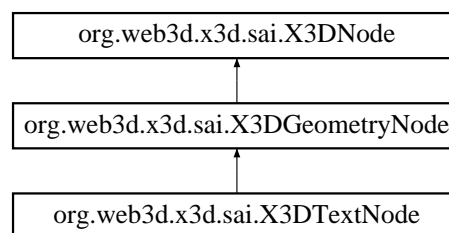
Definition at line 3 of file X3DSoundSourceNode.java.

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

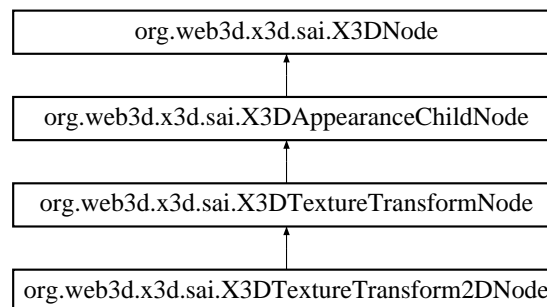
Definition at line 3 of file X3DTextureTransform2DNode.java.

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

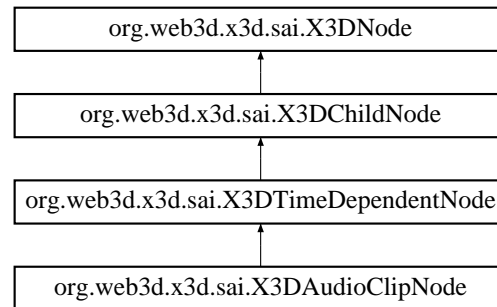
Definition at line 3 of file X3DTextureTransformNode.java.

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

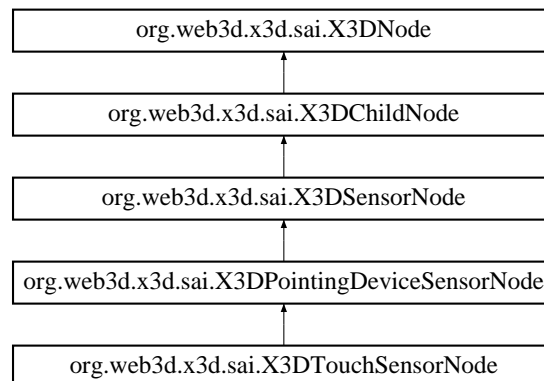
Definition at line 3 of file X3DTimeDependentNode.java.

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

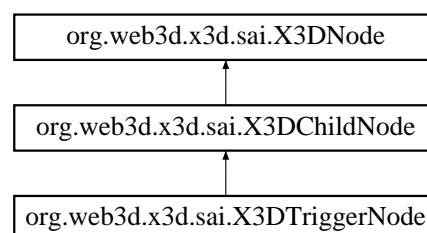
Definition at line 3 of file X3DTouchSensorNode.java.

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

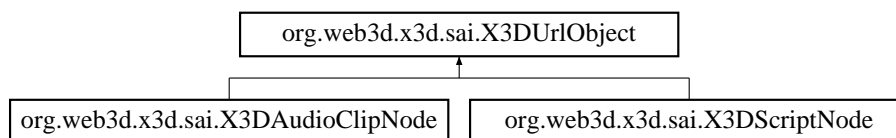
Definition at line 3 of file X3DTriggerNode.java.

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 69 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

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