



Delta3D Version 2.4.0

dtDIS::

Reference Manual

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Main Page

Delta3D is an Open Source engine which can be used for games, simulations, or other graphical applications.

The **Delta3D** framework exists as a number of modules, each sitting in its own library, enclosed within its own namespace. At the very core lies the **dtCore** library. This contains basic, low-level functionality which is mostly required for all 3D applications written in C++.

Around and alongside this sit other supporting libraries, such as **dtUtil** (containing reusable features which are useful for most applications), **dtTerrain** (for rendering terrain databases), **dtGame**, **dtNet**, etc.

Extensive online documentation is available from the Delta3D **Docs** section to help in using Delta3D.

The project's original reference guides generated by Doxygen from the source code may be viewed at the Delta3D **API Documentation** section.

To download source code, binaries, dependencies and sample datasets visit the Delta3D **Downloads** page.

For more about dependencies see the Delta3D **Dependencies** page.

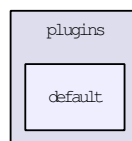
The documentation you are looking at can be downloaded from www.3draum.ch.

Enjoy!

Todo List

Directory Documentation

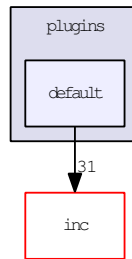
3.1 inc/dtDIS/plugins/default/ Directory Reference



Files

- file [actorupdatetoentitystate.h](#)
- file [createentityprocessor.h](#)
- file [defaultplugin.h](#)
- file [dtisdefaultpluginexport.h](#)
- file [espduapplicator.h](#)
- file [espduprocessor.h](#)
- file [pluginsymbols.h](#)
- file [removeentityprocessor.h](#)

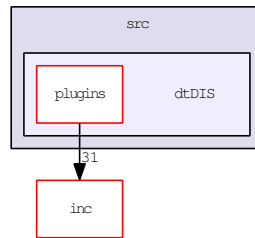
3.2 src/dtDIS/plugins/default/ Directory Reference



Files

- file [actorupdatetoentitystate.cpp](#)
- file [createentityprocessor.cpp](#)
- file [defaultplugin.cpp](#)
- file [espduapplicator.cpp](#)
- file [espduprocessor.cpp](#)
- file [pluginsymbols.cpp](#)
- file [removeentityprocessor.cpp](#)

3.3 src/dtDIS/ Directory Reference



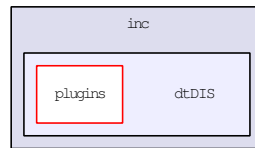
Directories

- directory [plugins](#)

Files

- file [activeentitycontrol.cpp](#)
- file [articulationconstants.cpp](#)
- file [connection.cpp](#)
- file [disxml.cpp](#)
- file [entityidcompare.cpp](#)
- file [hasproperty.cpp](#)
- file [idisplugin.cpp](#)
- file [imessagetopacketadapter.cpp](#)
- file [mastercomponent.cpp](#)
- file [outgoingmessage.cpp](#)
- file [pluginmanager.cpp](#)
- file [propertyname.cpp](#)
- file [sharedstate.cpp](#)
- file [valuemaps.cpp](#)

3.4 inc/dtDIS/ Directory Reference



Directories

- directory [plugins](#)

Files

- file [acknowledgeconstants.h](#)
- file [activeentitycontrol.h](#)
- file [articulationconstants.h](#)
- file [connection.h](#)
- file [containerutils.h](#)
- file [createdestroypolicy.h](#)
- file [createdestroypolicy.inl](#)
- file [disxml.h](#)
- file [dllfinder.h](#)
- file [dtdisexport.h](#)
- file [entityidcompare.h](#)
- file [entitytypeconstants.h](#)
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- file [mainpage.h](#)
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- file [outgoingmessage.h](#)
- file [pluginmanager.h](#)
- file [propertyname.h](#)
- file [sharedstate.h](#)
- file [valuemaps.h](#)

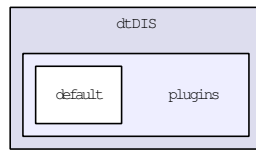
3.5 inc/ Directory Reference



Directories

- directory [dtDIS](#)

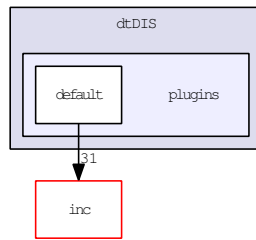
3.6 inc/dtDIS/plugins/ Directory Reference



Directories

- directory [default](#)

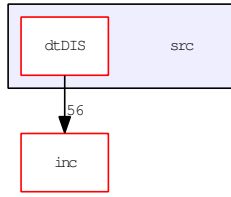
3.7 src/dtDIS/plugins/ Directory Reference



Directories

- directory [default](#)

3.8 src/ Directory Reference



Directories

- directory [dtDIS](#)

Namespace Documentation

4.1 DIS Namespace Reference

4.2 dtCore Namespace Reference

4.3 dtDAL Namespace Reference

4.4 dtDIS Namespace Reference

the Delta3D support framework for the [DIS](#) network protocol.

Namespaces

- namespace [Articulation](#)
the scope for articulation specific constants, lacking in the [DIS](#) dependency, and other tools.

Classes

- struct [ActiveEntityControl](#)
provides a single point for associating known entities & actors.
- struct [ActorMapConfig](#)
a structure to maintain the one-to-one relationship between the [DIS::EntityID](#) and the [dtDAL::ActorType](#).
- class [ActorUpdateToEntityState](#)
responsible for translating [ActorUpdateMessage](#) instances to [EntityStatePdu](#) instances.
- class [Connection](#)
Makes a multicast connection to support [DIS](#) networks.
- struct [ConnectionData](#)
the information needed to connect to the [DIS](#) network.
- class [ConnectionXMLHandler](#)
Reads the connection info from a config file.
- class [CreateEntityProcessor](#)
the plugin's model of how to respond to the [DIS::CreateEntityPdu](#) message.
- class [DefaultPlugin](#)
the plugin to support various [DIS::Pdu](#) types.
- struct [EnginePropertyName](#)
- class [EntityMapXMLHandler](#)
Stores configuration data loaded from a file for the purposes of mapping [DIS](#) to Delta3D.
- struct [EntityPropertyName](#)
- class [ESPduProcessor](#)
the interface class responsible for applying data from a [DIS::EntityStatePdu](#) packet.
- class [IDISPlugin](#)
the interface for all [DIS](#) plugins
- class [IMessageToPacketAdapter](#)
the interface for translating Delta3D messages into [DIS](#) packets.
- class [MasterComponent](#)
Supports a framework to translate [DIS PDUs](#) into [dtGame::Message](#) instances.
- class [OutgoingMessage](#)
A framework for translating [dtGame::Message](#) instances to PDUs.
- class [PluginManager](#)

manages a container of available plugins.

- class [RemoveEntityProcessor](#)
the plugin's model of how to respond to the DIS::RemoveEntityPdu message.
- struct [ResourceMapConfig](#)
a structure to maintain the relationship between the DIS::EntityID and the resources available.
- class [SharedState](#)
The data to be shared among plugins.
- struct [ValueMap](#)
a name scope for all sorts of mappings
- struct [XMLFiles](#)
constant definitions for the official schema files.

Enumerations

- enum [AcknowledgeFlag](#) { `ACKNOWLEDGE_CREATE_ENTITY = 1`, `ACKNOWLEDGE_REMOVE_ENTITY = 2`, `ACKNOWLEDGE_START_RESUME = 3`, `ACKNOWLEDGE_STOP_FREEZE = 4` }
- enum [DomainType](#) {
`DOMAIN_LAND = 1`, `DOMAIN_AIR = 2`, `DOMAIN_SURFACE = 3`, `DOMAIN_SUBSURFACE = 4`,
`DOMAIN_SPACE = 5` }
- enum [ResponseFlag](#) { `RESPONSE_OTHER = 0`, `RESPONSE_ABLE_TO_COMPLY = 1`, `RESPONSE_UNABLE_TO_COMPLY = 2` }

Functions

- DT_DIS_DEFAULT_EXPORT `IDISPlugin * CreateComponent ()`
- DT_DIS_DEFAULT_EXPORT `void DestroyComponent (IDISPlugin *plugin)`

4.4.1 Detailed Description

the Delta3D support framework for the [DIS](#) network protocol.

4.4.2 Enumeration Type Documentation

4.4.2.1 enum AcknowledgeFlag

Enumerator:

ACKNOWLEDGE_CREATE_ENTITY
ACKNOWLEDGE_REMOVE_ENTITY
ACKNOWLEDGE_START_RESUME
ACKNOWLEDGE_STOP_FREEZE

4.4.2.2 enum DomainType

Enumerator:

DOMAIN_LAND
DOMAIN_AIR
DOMAIN_SURFACE
DOMAIN_SUBSURFACE
DOMAIN_SPACE

4.4.2.3 enum ResponseFlag

Enumerator:

RESPONSE_OTHER
RESPONSE_ABLE_TO_COMPLY
RESPONSE_UNABLE_TO_COMPLY

4.4.3 Function Documentation

4.4.3.1 dtDIS::IDISPlugin * CreateComponent ()

4.4.3.2 void DestroyComponent (dtDIS::IDISPlugin * *plugin*)

4.5 dtDIS::Articulation Namespace Reference

the scope for articulation specific constants, lacking in the [DIS](#) dependency, and other tools.

Classes

- struct [NodeName](#)

a static definition of the scene graph node names to be used for articulated parts.

Enumerations

- enum [MotionType](#) { [MOTION_AZIMUTH](#) = 11, [MOTION_AZIMUTH_RATE](#) = 12, [MOTION_ELEVATION](#) = 13 }
- enum [ParameterTypeDesignator](#) { [ARTICULATED_PART](#) = 0, [ATTACHED_PART](#) = 1 }
- enum [PartType](#) { [PART_PRIMARY_TURRET](#) = 4096, [PART_PRIMARY_GUN](#) = 4416, [PART_SECONDARY_GUN](#) = 6016 }

4.5.1 Detailed Description

the scope for articulation specific constants, lacking in the [DIS](#) dependency, and other tools.

4.5.2 Enumeration Type Documentation

4.5.2.1 enum MotionType

Enumerator:

MOTION_AZIMUTH
MOTION_AZIMUTH_RATE
MOTION_ELEVATION

4.5.2.2 enum ParameterTypeDesignator

Enumerator:

ARTICULATED_PART
ATTACHED_PART

4.5.2.3 enum PartType

Enumerator:

PART_PRIMARY_TURRET
PART_PRIMARY_GUN
PART_SECONDARY_GUN

4.6 dtGame Namespace Reference

4.7 dtUtil Namespace Reference

Functions

- template<class MType >
MType::iterator [find_multimap_pair](#) (MType &mmap, const typename MType::key_type &key, const
typename MType::mapped_type &value)
find the iterator for the unique key-value pair.

4.7.1 Function Documentation

4.7.1.1 MType::iterator dtUtil::find_multimap_pair (MType & *mmap*, const typename MType::key_type & *key*, const typename MType::mapped_type & *value*) [inline]

find the iterator for the unique key-value pair. Parameters

mmap the container instance to be searched.

key the container's key to be found.

the container's value matching key to be found.

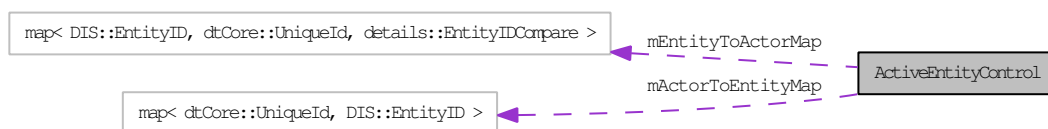
Returns the found iterator, or the end of the container.

Class Documentation

5.1 ActiveEntityControl Struct Reference

provides a single point for associating known entities & actors.

`#include <inc/dtDIS/activeentitycontrol.h>` Collaboration diagram for ActiveEntityControl:



Public Member Functions

- bool **AddEntity** (const DIS::EntityID &eid, const dtCore::UniqueId &id)
relate an EntityID with an Actor
- void **ClearAll** ()
remove all state data.
- const dtCore::UniqueId * **GetActor** (const DIS::EntityID &eid) const
finds the associated Actor
- const DIS::EntityID * **GetEntity** (const dtCore::UniqueId &uid) const
finds the associated Entity
- bool **RemoveEntity** (const DIS::EntityID &eid, const dtCore::UniqueId &id)
remove a relation for the EntityID and Actor

5.1.1 Detailed Description

provides a single point for associating known entities & actors. Provides quick look-ups given either an entity or an actor by keeping 2 maps in sync.

5.1.2 Member Function Documentation

5.1.2.1 bool AddEntity (const DIS::EntityID & eid, const dtCore::UniqueId & id)

relate an EntityID with an Actor Returns 'false' when any relation previously existed; 'true' if the relation was added.

5.1.2.2 void ClearAll ()

remove all state data.

5.1.2.3 const dtCore::Uniqueld * GetActor (const DIS::EntityID & *eid*) const

finds the associated Actor Returns NULL when the EntityID has no matching Actor

5.1.2.4 const DIS::EntityID * GetEntity (const dtCore::Uniqueld & *uid*) const

finds the associated Entity Returns NULL when the proxy has no matching EntityID

5.1.2.5 bool RemoveEntity (const DIS::EntityID & *eid*, const dtCore::Uniqueld & *id*)

remove a relation for the EntityID and Actor Returns 'false' when no relation previously existed; 'true' if the relation was removed.

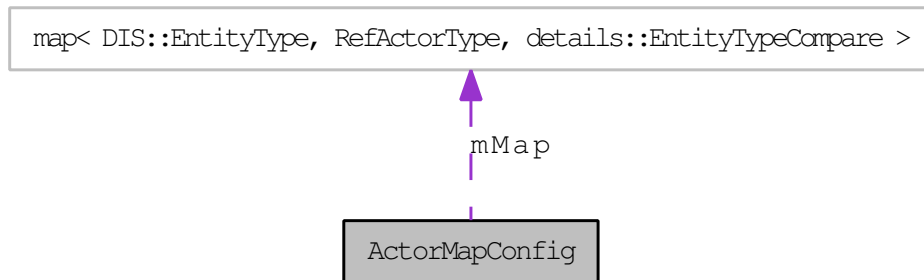
The documentation for this struct was generated from the following files:

- [activeentitycontrol.h](#)
- [activeentitycontrol.cpp](#)

5.2 ActorMapConfig Struct Reference

a structure to maintain the one-to-one relationship between the DIS::EntityID and the dtDAL::ActorType.

#include <inc/dtDIS/sharedstate.h> Collaboration diagram for ActorMapConfig:



Public Member Functions

- bool [AddActorMapping](#) (const DIS::EntityType &eid, const dtDAL::ActorType *at)
Adds a mapping from the DIS::EntityID to the dtDAL::ActorType if no mapping exists.
- bool [GetMappedActor](#) (const DIS::EntityType &eid, const dtDAL::ActorType *&toWrite)
Introduces the ActorType mapped to the EntityID.
- bool [RemoveActorMapping](#) (const DIS::EntityType &eid)
Takes the one to one mapping from the container for the supplied key.

5.2.1 Detailed Description

a structure to maintain the one-to-one relationship between the DIS::EntityID and the dtDAL::ActorType.

5.2.2 Member Function Documentation

5.2.2.1 bool AddActorMapping (const DIS::EntityType & eid, const dtDAL::ActorType * at)

Adds a mapping from the DIS::EntityID to the dtDAL::ActorType if no mapping exists. Returns true if no previous mapping existed. false if a mapping existed already.

5.2.2.2 bool GetMappedActor (const DIS::EntityType & eid, const dtDAL::ActorType *& toWrite)

Introduces the ActorType mapped to the EntityID. Parameters

toWrite Overwritten with the instance of the mapped ActorType.

eid The key being stored.

Returns true if eid was found in the map. false if it was not found.

5.2.2.3 bool RemoveActorMapping (const DIS::EntityType & eid)

Takes the one to one mapping from the container for the supplied key. Parameters

eid the key to the mapping.

Returns true if eid was found in the map. false if it was not found.

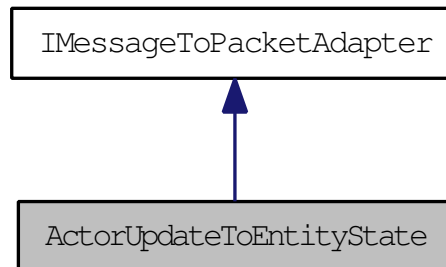
The documentation for this struct was generated from the following files:

- [sharedstate.h](#)
- [sharedstate.cpp](#)

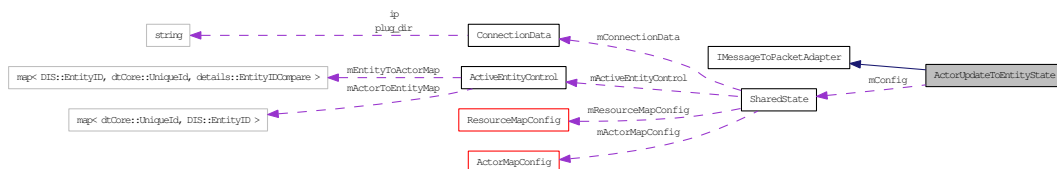
5.3 ActorUpdateToEntityState Class Reference

responsible for translating ActorUpdateMessage instances to EntityStatePdu instances.

#include <inc/dtDIS/plugins/default/actorupdatetoentitystate.h> Inheritance diagram for ActorUpdateToEntityState:



Collaboration diagram for ActorUpdateToEntityState:



Public Member Functions

- [ActorUpdateToEntityState](#) ([dtDIS::SharedState](#) *config, [dtGame::GameManager](#) *gm)
- [~ActorUpdateToEntityState](#) ()
- [DIS::Pdu](#) * [Convert](#) (const [dtGame::Message](#) &source)

The interface for converting from a [dtGame::Message](#) to a [DIS](#) packet.

5.3.1 Detailed Description

responsible for translating ActorUpdateMessage instances to EntityStatePdu instances.

5.3.2 Constructor & Destructor Documentation

5.3.2.1 [ActorUpdateToEntityState](#) ([dtDIS::SharedState](#) * config, [dtGame::GameManager](#) * gm)

5.3.2.2 [~ActorUpdateToEntityState](#) ()

5.3.3 Member Function Documentation

5.3.3.1 [DIS::Pdu](#) * [Convert](#) (const [dtGame::Message](#) & source) [virtual]

The interface for converting from a [dtGame::Message](#) to a [DIS](#) packet. Parameters

source The data container

Returns the serialized packet instance

Implements [IMessageToPacketAdapter](#).

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

- [actorupdatetoentitystate.h](#)
- [actorupdatetoentitystate.cpp](#)

5.4 Connection Class Reference

Makes a multicast connection to support DIS networks.

```
#include <inc/dtDIS/connection.h>
```

Public Member Functions

- void **Connect** (unsigned int port, const char *host)
makes a socket connection for the specified network.
- void **Disconnect** ()
closes the socket connection.
- size_t **Receive** (char *buf, size_t numbytes)
allocates buf with size numbytes.
- void **Send** (const char *buf, size_t numbytes)
publishes the data to the network.

5.4.1 Detailed Description

Makes a multicast connection to support DIS networks. Note requires the HawkNL socket library.
<http://www.hawksoft.com/hawknl/>

5.4.2 Member Function Documentation

5.4.2.1 void Connect (unsigned int *port*, const char * *host*)

makes a socket connection for the specified network. Parameters

port the serial port for the connection's network host.

host the name of the network host.

5.4.2.2 void Disconnect ()

closes the socket connection.

Todo

is this the ideal NL call?

5.4.2.3 size_t Receive (char * *buf*, size_t *numbytes*)

allocates buf with size numbytes. Parameters

buf the buffer to be written to with network bytes

numbytes the maximum index used for the buffer (buf)

Returns the number of bytes read from the connection

5.4.2.4 void Send (const char * *buf*, size_t *numbytes*)

publishes the data to the network. Parameters

buf the buffer to be written to with network bytes.

numbytes the number of bytes contained in the the buffer.

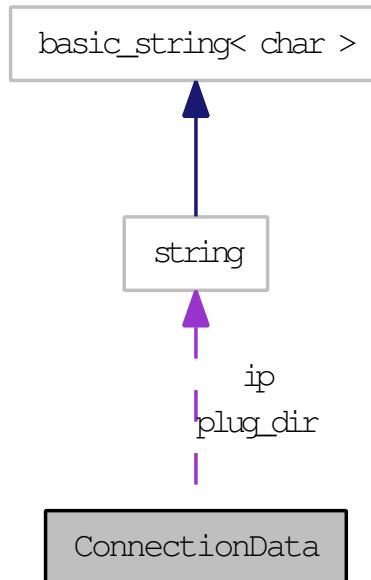
The documentation for this class was generated from the following files:

- [connection.h](#)
- [connection.cpp](#)

5.5 ConnectionData Struct Reference

the information needed to connect to the [DIS](#) network.

#include <inc/dtDIS/sharedstate.h> Collaboration diagram for ConnectionData:



Public Attributes

- unsigned short [application_id](#)
the ID of the sending application
- unsigned char [exercise_id](#)
the ID for the local simulation client
- std::string [ip](#)
- unsigned int [MTU](#)
- std::string [plug_dir](#)
- unsigned int [port](#)
- unsigned short [site_id](#)
The ID of the sending site.

5.5.1 Detailed Description

the information needed to connect to the [DIS](#) network.

5.5.2 Member Data Documentation

5.5.2.1 unsigned short application_id

the ID of the sending application

5.5.2.2 unsigned char exercise_id

the ID for the local simulation client

5.5.2.3 `std::string ip`

5.5.2.4 `unsigned int MTU`

5.5.2.5 `std::string plug_dir`

5.5.2.6 `unsigned int port`

5.5.2.7 `unsigned short site_id`

The ID of the sending site.

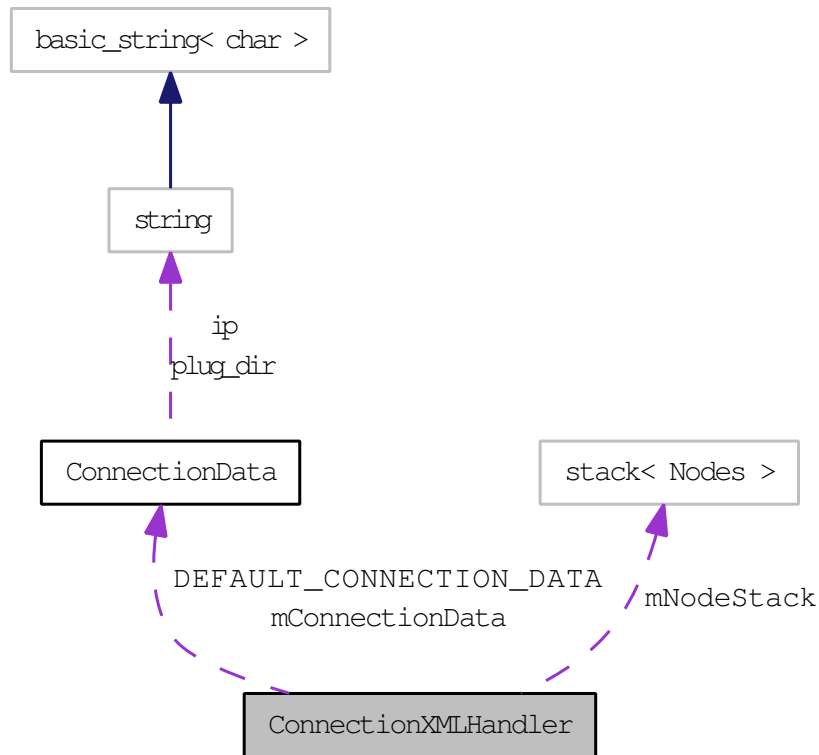
The documentation for this struct was generated from the following file:

- [sharedstate.h](#)

5.6 ConnectionXMLHandler Class Reference

Reads the connection info from a config file.

#include <inc/dtDIS/disxml.h> Collaboration diagram for ConnectionXMLHandler:



Public Member Functions

- [ConnectionXMLHandler](#) ()
- [~ConnectionXMLHandler](#) ()
- void [characters](#) (const XMLCh *const chars, const unsigned int length)
- void [endDocument](#) ()
- void [endElement](#) (const XMLCh *const uri, const XMLCh *const localname, const XMLCh *const qname)
- void [endPrefixMapping](#) (const XMLCh *const prefix)
- const [dtDIS::ConnectionData](#) & [GetConnectionData](#) () const
- void [ignorableWhitespace](#) (const XMLCh *const chars, const unsigned int length)
- void [processingInstruction](#) (const XMLCh *const target, const XMLCh *const data)
- void [setDocumentLocator](#) (const XERCES_CPP_NAMESPACE_QUALIFIER Locator *const locator)
- void [skippedEntity](#) (const XMLCh *const name)
- void [startDocument](#) ()
- void [startElement](#) (const XMLCh *const uri, const XMLCh *const localname, const XMLCh *const qname, const XERCES_CPP_NAMESPACE_QUALIFIER Attributes &attrs)
- void [startPrefixMapping](#) (const XMLCh *const prefix, const XMLCh *const uri)

Static Public Attributes

- static const [dtDIS::ConnectionData](#) [DEFAULT_CONNECTION_DATA](#)

5.6.1 Detailed Description

Reads the connection info from a config file.

5.6.2 Constructor & Destructor Documentation

5.6.2.1 ConnectionXMLHandler ()

5.6.2.2 ~ConnectionXMLHandler ()

5.6.3 Member Function Documentation

5.6.3.1 void characters (const XMLCh *const *chars*, const unsigned int *length*)

5.6.3.2 void endDocument ()

5.6.3.3 void endElement (const XMLCh *const *uri*, const XMLCh *const *localname*, const XMLCh *const *qname*)

5.6.3.4 void endPrefixMapping (const XMLCh *const *prefix*)

5.6.3.5 const dtDIS::ConnectionData & GetConnectionData () const

5.6.3.6 void ignorableWhitespace (const XMLCh *const *chars*, const unsigned int *length*)

5.6.3.7 void processingInstruction (const XMLCh *const *target*, const XMLCh *const *data*)

5.6.3.8 void setDocumentLocator (const XERCES_CPP_NAMESPACE_QUALIFIER Locator *const *locator*)

5.6.3.9 void skippedEntity (const XMLCh *const *name*)

5.6.3.10 void startDocument ()

5.6.3.11 void startElement (const XMLCh *const *uri*, const XMLCh *const *localname*, const XMLCh *const *qname*, const XERCES_CPP_NAMESPACE_QUALIFIER Attributes & *attrs*)

5.6.3.12 void startPrefixMapping (const XMLCh *const *prefix*, const XMLCh *const *uri*)

5.6.4 Member Data Documentation

5.6.4.1 const dtDIS::ConnectionData DEFAULT_CONNECTION_DATA [static]

Initial value:

```
{ 62040,
    9.1.2.3",
    ../../dtDIS_trunk/bin/plugins",
    0 }
    "23
    ".
    1,
    150
```

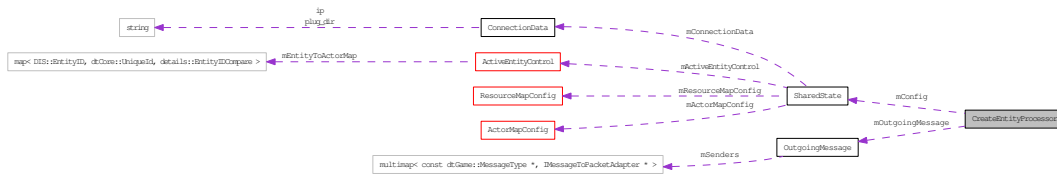
The documentation for this class was generated from the following files:

- [disxml.h](#)
- [disxml.cpp](#)

5.7 CreateEntityProcessor Class Reference

the plugin's model of how to respond to the DIS::CreateEntityPdu message.

#include <inc/dtDIS/plugins/default/createentityprocessor.h> Collaboration diagram for CreateEntityProcessor:



Public Member Functions

- [CreateEntityProcessor](#) ([OutgoingMessage](#) *omsg, [SharedState](#) *config)
- [~CreateEntityProcessor](#) ()
- void [Process](#) (const DIS::Pdu &p)

5.7.1 Detailed Description

the plugin's model of how to respond to the DIS::CreateEntityPdu message.

5.7.2 Constructor & Destructor Documentation

5.7.2.1 CreateEntityProcessor ([OutgoingMessage](#) * *omsg*, [SharedState](#) * *config*)

5.7.2.2 ~CreateEntityProcessor ()

5.7.3 Member Function Documentation

5.7.3.1 void [Process](#) (const DIS::Pdu & *p*)

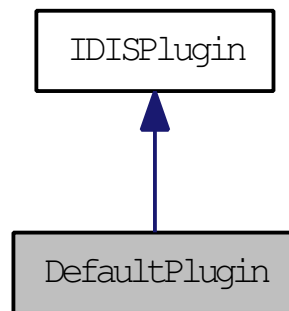
The documentation for this class was generated from the following files:

- [createentityprocessor.h](#)
- [createentityprocessor.cpp](#)

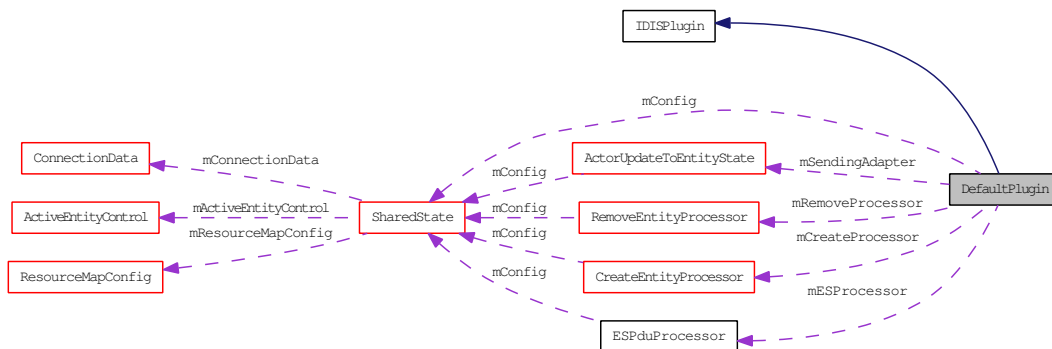
5.8 DefaultPlugin Class Reference

the plugin to support various DIS::Pdu types.

#include <inc/dtDIS/plugins/default/defaultplugin.h> Inheritance diagram for DefaultPlugin:



Collaboration diagram for DefaultPlugin:



Public Member Functions

- [DefaultPlugin \(\)](#)
- [~DefaultPlugin \(\)](#)
- void [Finish](#) (DIS::IncomingMessage &imsg, [dtDIS::OutgoingMessage](#) &omsg)
plugin should forget the state of the game.
- void [Start](#) (DIS::IncomingMessage &imsg, [dtDIS::OutgoingMessage](#) &omsg, dtGame::GameManager *gm, [dtDIS::SharedState](#) *config)
attaches the IPacketProcessor and IMessageToPacketAdapter

5.8.1 Detailed Description

the plugin to support various DIS::Pdu types.

5.8.2 Constructor & Destructor Documentation

5.8.2.1 DefaultPlugin ()

5.8.2.2 ~DefaultPlugin ()

5.8.3 Member Function Documentation

5.8.3.1 void Finish (DIS::IncomingMessage & *incoming*, dtDIS::OutgoingMessage & *outgoing*) [virtual]

plugin should forget the state of the game. called before unloading.

Implements [IDISPlugin](#).

5.8.3.2 `void Start (DIS::IncomingMessage & imsg, dtDIS::OutgoingMessage & omsg, dtGame::GameManager * gm, dtDIS::SharedState * config) [virtual]`

attaches the IPacketProcessor and [IMessageToPacketAdapter](#)

Implements [IDISPlugin](#).

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

- [defaultplugin.h](#)
- [defaultplugin.cpp](#)

5.9 EnginePropertyName Struct Reference

```
#include <inc/dtDIS/propertyname.h>
```

Static Public Attributes

- static dtUtil::RefString [ARTICULATION](#)
- static dtUtil::RefString [DEAD_RECKONING_ALGORITHM](#)
- static dtUtil::RefString [DOF_NODE_NAME](#)
this value is not a typo, it needs to be this because of the DVTE support.
- static dtUtil::RefString [ENTITY_LINEARY_VELOCITY](#)
- static dtUtil::RefString [ENTITY_LOCATION](#)
Outgoing DIS packets read from this Property for the entity's XYZ translation.
- static dtUtil::RefString [ENTITY_MARKING](#)
- static dtUtil::RefString [ENTITY_ORIENTATION](#)
Outgoing DIS packets read from this Property for the entity's XYZ axis rotation (not HPR).
- static dtUtil::RefString [GROUND_CLAMP](#)
- static dtUtil::RefString [LAST_KNOWN_LOCATION](#)
Incoming DIS packets apply entity XYZ translation to this Property.
- static dtUtil::RefString [LAST_KNOWN_ORIENTATION](#)
Incoming DIS packets apply entity orientation to this Property.
- static dtUtil::RefString [RESOURCE_DAMAGE_DESTROYED](#)
- static dtUtil::RefString [RESOURCE_DAMAGE_OFF](#)
- static dtUtil::RefString [RESOURCE_DAMAGE_ON](#)

5.9.1 Member Data Documentation

5.9.1.1 dtUtil::RefString ARTICULATION [static]

Todo

this only uses the substring 'Parameter' because dvte::IG::Entity needs it.

5.9.1.2 dtUtil::RefString DEAD_RECKONING_ALGORITHM [static]

5.9.1.3 dtUtil::RefString DOF_NODE_NAME [static]

this value is not a typo, it needs to be this because of the DVTE support.

5.9.1.4 dtUtil::RefString ENTITY_LINEARY_VELOCITY [static]

5.9.1.5 dtUtil::RefString ENTITY_LOCATION [static]

Outgoing DIS packets read from this Property for the entity's XYZ translation.

5.9.1.6 dtUtil::RefString ENTITY_MARKING [static]

5.9.1.7 dtUtil::RefString ENTITY_ORIENTATION [static]

Outgoing DIS packets read from this Property for the entity's XYZ axis rotation (not HPR).

5.9.1.8 dtUtil::RefString GROUND_CLAMP [static]

Todo

this only named "Flying" for now because of the dvte::IG::Entity actor.

5.9.1.9 dtUtil::RefString LAST_KNOWN_LOCATION [static]

Incoming [DIS](#) packets apply entity XYZ translation to this Property. This is used by the dtGame::DeadReckoningComponent to update the Delta3D actor's position. If no DeadReckoningComponent is used, set this variable to be the same as ENTITY_LOCATION.

5.9.1.10 dtUtil::RefString LAST_KNOWN_ORIENTATION [static]

Incoming [DIS](#) packets apply entity orientation to this Property. This is used by the dtGame::DeadReckoningComponent to update the Delta3D actor's rotation. If no DeadReckoningComponent is used, set this variable to be the same as ENTITY_ORIENTATION.

5.9.1.11 dtUtil::RefString RESOURCE_DAMAGE_DESTROYED [static]**5.9.1.12 dtUtil::RefString RESOURCE_DAMAGE_OFF [static]****5.9.1.13 dtUtil::RefString RESOURCE_DAMAGE_ON [static]**

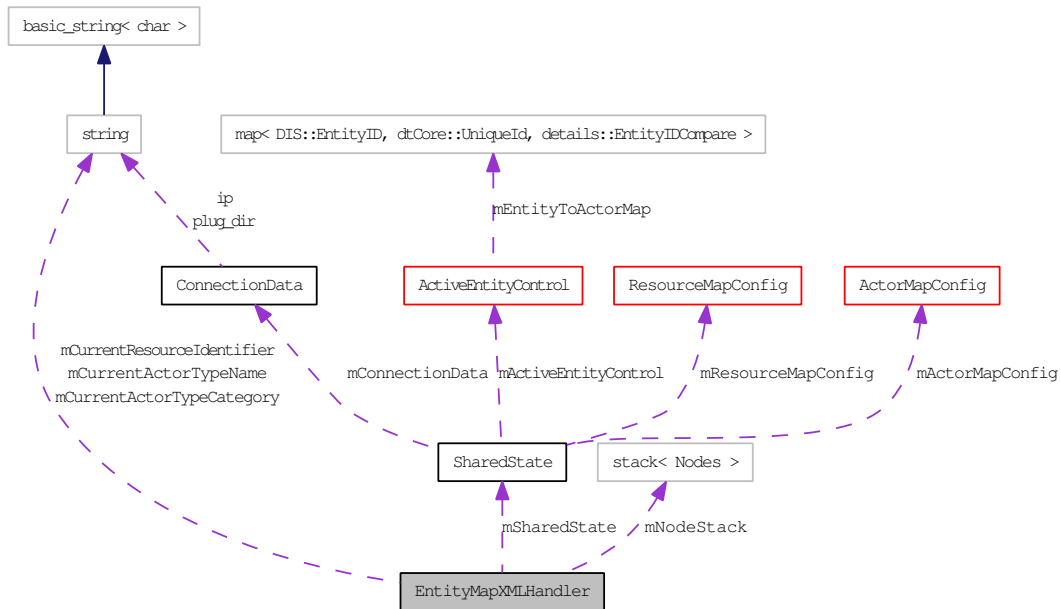
The documentation for this struct was generated from the following files:

- [propertyname.h](#)
- [propertyname.cpp](#)

5.10 EntityMapXMLHandler Class Reference

Stores configuration data loaded from a file for the purposes of mapping [DIS](#) to Delta3D.

#include <inc/dtDIS/disxml.h> Collaboration diagram for EntityMapXMLHandler:



Public Member Functions

- [EntityMapXMLHandler](#) ([SharedState](#) *config)
- [~EntityMapXMLHandler](#) ()
- void [characters](#) (const XMLCh *const chars, const unsigned int length)
- void [endDocument](#) ()
- void [endElement](#) (const XMLCh *const uri, const XMLCh *const localname, const XMLCh *const qname)
- void [endPrefixMapping](#) (const XMLCh *const prefix)
- void [ignorableWhitespace](#) (const XMLCh *const chars, const unsigned int length)
- void [processingInstruction](#) (const XMLCh *const target, const XMLCh *const data)
- void [setDocumentLocator](#) (const XERCES_CPP_NAMESPACE_QUALIFIER Locator *const locator)
- void [skippedEntity](#) (const XMLCh *const name)
- void [startDocument](#) ()
- void [startElement](#) (const XMLCh *const uri, const XMLCh *const localname, const XMLCh *const qname, const XERCES_CPP_NAMESPACE_QUALIFIER Attributes &attrs)
- void [startPrefixMapping](#) (const XMLCh *const prefix, const XMLCh *const uri)

5.10.1 Detailed Description

Stores configuration data loaded from a file for the purposes of mapping [DIS](#) to Delta3D. Populates the content within the EntityMapControl. Assumes the dtGame::GameManager has all ActorTypes registered already.

5.10.2 Constructor & Destructor Documentation

5.10.2.1 EntityMapXMLHandler (SharedState * *config*)

5.10.2.2 ~EntityMapXMLHandler ()

5.10.3 Member Function Documentation

5.10.3.1 void characters (const XMLCh *const *chars*, const unsigned int *length*)

5.10.3.2 void endDocument ()

5.10.3.3 void endElement (const XMLCh *const *uri*, const XMLCh *const *localname*, const XMLCh *const *qname*)

5.10.3.4 void endPrefixMapping (const XMLCh *const *prefix*)

5.10.3.5 void ignorableWhitespace (const XMLCh *const *chars*, const unsigned int *length*)

5.10.3.6 void processingInstruction (const XMLCh *const *target*, const XMLCh *const *data*)

5.10.3.7 void setDocumentLocator (const XERCES_CPP_NAMESPACE_QUALIFIER Locator *const *locator*)

5.10.3.8 void skippedEntity (const XMLCh *const *name*)

5.10.3.9 void startDocument ()

5.10.3.10 void startElement (const XMLCh *const *uri*, const XMLCh *const *localname*, const XMLCh *const *qname*, const XERCES_CPP_NAMESPACE_QUALIFIER Attributes & *attrs*)

5.10.3.11 void startPrefixMapping (const XMLCh *const *prefix*, const XMLCh *const *uri*)

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

- [disxml.h](#)
- [disxml.cpp](#)

5.11 EntityPropertyName Struct Reference

```
#include <inc/dtDIS/propertyname.h>
```

Static Public Attributes

- static dtUtil::RefString [APPEARANCE](#)
Contains the official ActorProperty names for DIS::EntityStatePdu attributes.
- static dtUtil::RefString [ENTITY_TYPE](#)

5.11.1 Member Data Documentation

5.11.1.1 dtUtil::RefString APPEARANCE [static]

Contains the official ActorProperty names for DIS::EntityStatePdu attributes.

5.11.1.2 dtUtil::RefString ENTITY_TYPE [static]

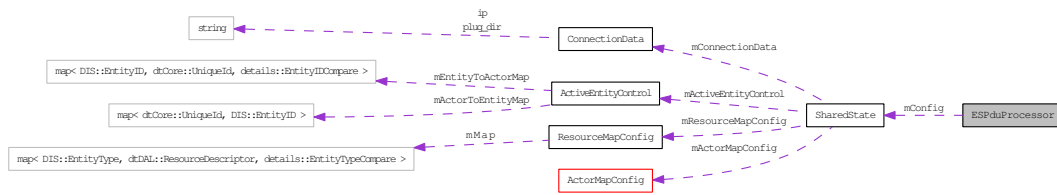
The documentation for this struct was generated from the following files:

- [propertyname.h](#)
- [propertyname.cpp](#)

5.12 ESPduProcessor Class Reference

the interface class responsible for applying data from a DIS::EntityStatePdu packet.

#include <inc/dtDIS/plugins/default/espduprocessor.h> Collaboration diagram for ESPduProcessor:



Public Member Functions

- [ESPduProcessor](#) (dtGame::GameManager *gm, [SharedState](#) *config)
- [~ESPduProcessor](#) ()
- void [Process](#) (const DIS::Pdu &p)

Protected Member Functions

- void [AddActor](#) (const DIS::EntityStatePdu &pdu, dtDAL::ActorProxy *proxy)
- void [ApplyFullUpdateToProxy](#) (const DIS::EntityStatePdu &pdu, dtGame::GameActorProxy &proxy)
- void [SendPartialUpdate](#) (const DIS::EntityStatePdu &pdu, const dtDAL::ActorProxy &actor)

5.12.1 Detailed Description

the interface class responsible for applying data from a DIS::EntityStatePdu packet.

5.12.2 Constructor & Destructor Documentation

5.12.2.1 [ESPduProcessor](#) (dtGame::GameManager * gm, [SharedState](#) * config)

5.12.2.2 [~ESPduProcessor](#) ()

5.12.3 Member Function Documentation

5.12.3.1 void [AddActor](#) (const DIS::EntityStatePdu & pdu, dtDAL::ActorProxy * proxy) [protected]

5.12.3.2 void [ApplyFullUpdateToProxy](#) (const DIS::EntityStatePdu & pdu, dtGame::GameActorProxy & proxy) [protected]

5.12.3.3 void [Process](#) (const DIS::Pdu & p)

5.12.3.4 void [SendPartialUpdate](#) (const DIS::EntityStatePdu & pdu, const dtDAL::ActorProxy & actor) [protected]

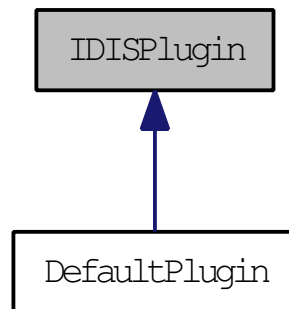
The documentation for this class was generated from the following files:

- [espduprocessor.h](#)
- [espduprocessor.cpp](#)

5.13 IDISPlugin Class Reference

the interface for all [DIS](#) plugins

#include <inc/dtDIS/idisplugin.h>Inheritance diagram for IDISPlugin:



Public Member Functions

- virtual `~IDISPlugin ()`
- virtual void `Finish (DIS::IncomingMessage &incoming, dtDIS::OutgoingMessage &outgoing)=0`
plugin should forget the state of the game.
- virtual void `Start (DIS::IncomingMessage &incoming, dtDIS::OutgoingMessage &outgoing, dtGame::GameManager *gm, dtDIS::SharedState *config)=0`
plugin is informed of the state of the game.

5.13.1 Detailed Description

the interface for all [DIS](#) plugins

5.13.2 Constructor & Destructor Documentation

5.13.2.1 `~IDISPlugin ()` [virtual]

5.13.3 Member Function Documentation

5.13.3.1 virtual void `Finish (DIS::IncomingMessage & incoming, dtDIS::OutgoingMessage & outgoing)` [pure virtual]

plugin should forget the state of the game. called before unloading.

Implemented in [DefaultPlugin](#).

5.13.3.2 virtual void `Start (DIS::IncomingMessage & incoming, dtDIS::OutgoingMessage & outgoing, dtGame::GameManager * gm, dtDIS::SharedState * config)` [pure virtual]

plugin is informed of the state of the game. called after being successfully loaded. Parameters

incoming used to attach packet handlers.

outgoing used to attach message handlers.

gm used to deliver the state of the game.

config used to share connection and setup data.

Implemented in [DefaultPlugin](#).

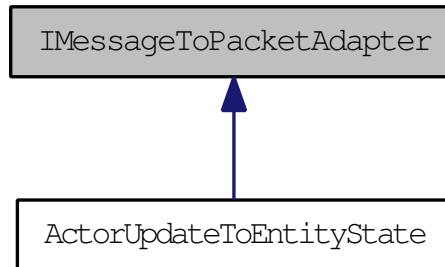
The documentation for this class was generated from the following files:

- [idisplugin.h](#)
- [idisplugin.cpp](#)

5.14 IMessageToPacketAdapter Class Reference

the interface for translating Delta3D messages into [DIS](#) packets.

#include <inc/dtDIS/imessagetopacketadapter.h> Inheritance diagram for IMessageToPacketAdapter:



Public Member Functions

- virtual [~IMessageToPacketAdapter](#) ()
- virtual [DIS::Pdu * Convert](#) (const [dtGame::Message](#) &source)=0
The interface for converting from a [dtGame::Message](#) to a [DIS](#) packet.

5.14.1 Detailed Description

the interface for translating Delta3D messages into [DIS](#) packets.

5.14.2 Constructor & Destructor Documentation

5.14.2.1 [~IMessageToPacketAdapter](#) () [virtual]

5.14.3 Member Function Documentation

5.14.3.1 virtual [DIS::Pdu* Convert](#) (const [dtGame::Message](#) & *source*) [pure virtual]

The interface for converting from a [dtGame::Message](#) to a [DIS](#) packet. Parameters

source The data container

Returns the serialized packet instance

Implemented in [ActorUpdateToEntityState](#).

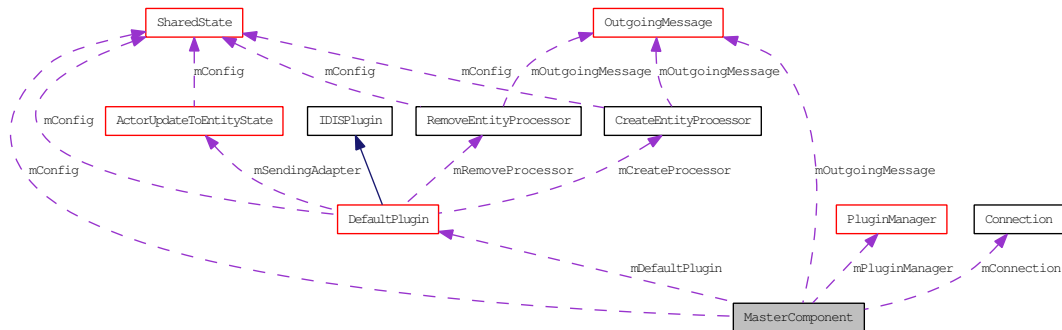
The documentation for this class was generated from the following files:

- [imessagetopacketadapter.h](#)
- [imessagetopacketadapter.cpp](#)

5.15 MasterComponent Class Reference

Supports a framework to translate DIS PDUs into dtGame::Message instances.

#include <inc/dtDIS/mastercomponent.h> Collaboration diagram for MasterComponent:



Public Member Functions

- **MasterComponent** (**SharedState** *config)
supply the configuration files needed to support DIS.
- virtual void **DispatchNetworkMessage** (const dtGame::Message &message)
Time to convert the Message into DIS PDU's and send out.
- const DIS::IncomingMessage & **GetIncomingMessage** () const
obtain the IncomingMessage for attaching and removing processors.
- DIS::IncomingMessage & **GetIncomingMessage** ()
obtain the IncomingMessage for attaching and removing processors.
- const **OutgoingMessage** & **GetOutgoingMessage** () const
obtain the OutgoingMessage for attaching and removing adapters.
- **OutgoingMessage** & **GetOutgoingMessage** ()
obtain the OutgoingMessage for attaching and removing adapters.
- const **SharedState** * **GetSharedState** () const
obtain the SharedState to know the current state of entity management and configurations.
- **SharedState** * **GetSharedState** ()
obtain the SharedState to know the current state of entity management and configurations.
- void **OnAddedToGM** ()
connects to the socket.
- void **OnRemovedFromGM** ()
disconnects from the socket.
- void **ProcessMessage** (const dtGame::Message &msg)
executed by the GameManager for observing any Message passing.

Protected Member Functions

- [~MasterComponent](#) ()
- void [LoadPlugins](#) (const std::string &directory)
- void [OnPluginLoaded](#) (PluginManager::LibraryRegistry::value_type &entry)
a slot to be executed when loading each plugin.
- void [OnPluginUnloaded](#) (PluginManager::LibraryRegistry::value_type &plugin)
a slot to be executed when unloading each plugin.
- void [UnloadPlugins](#) ()

5.15.1 Detailed Description

Supports a framework to translate [DIS](#) PDUs into dtGame::Message instances. The component will connect to a [DIS](#) network and load plugins to handle different [DIS](#) packet types. All you need to do is add this component to the dtGame::GameManager instance, and it will handle everything dealing with [DIS](#) for you, which includes:

- connecting to the [DIS](#) network, as specified in the connection file
- loading [DIS](#) packet plugins, also found in the connection file
- mapping DIS::EntityType instances to the ActorType instances specified in the mapping file.

5.15.2 Constructor & Destructor Documentation

5.15.2.1 MasterComponent (SharedState * config)

supply the configuration files needed to support [DIS](#). Parameters

config the result of reading data files needed for this component to work. This class does not assume ownership of the memory.

connection_file The XML file that shows the [ConnectionData](#).

mapping_file The XML file that shows the mappings from DIS::EntityIDs to dtDAL::ActorTypes.

Todo

what should set the network stream's endian type? the SharedState's connection data?

5.15.2.2 ~MasterComponent () [protected]

5.15.3 Member Function Documentation

5.15.3.1 void DispatchNetworkMessage (const dtGame::Message & message) [virtual]

Time to convert the Message into [DIS](#) PDU's and send out.

5.15.3.2 const DIS::IncomingMessage & GetIncomingMessage () const

obtain the IncomingMessage for attaching and removing processors. Returns the IncomingMessage instance.

5.15.3.3 DIS::IncomingMessage & GetIncomingMessage ()

obtain the IncomingMessage for attaching and removing processors. Returns the IncomingMessage instance.

5.15.3.4 const OutgoingMessage & GetOutgoingMessage () const

obtain the [OutgoingMessage](#) for attaching and removing adapters. Returns the [OutgoingMessage](#) instance.

5.15.3.5 OutgoingMessage & GetOutgoingMessage ()

obtain the [OutgoingMessage](#) for attaching and removing adapters. Returns the [OutgoingMessage](#) instance.

5.15.3.6 const SharedState * GetSharedState () const

obtain the [SharedState](#) to know the current state of entity management and configurations. Returns the [SharedState](#) instance.

5.15.3.7 SharedState * GetSharedState ()

obtain the [SharedState](#) to know the current state of entity management and configurations. Returns the [SharedState](#) instance.

5.15.3.8 void LoadPlugins (const std::string & *directory*) [protected]**5.15.3.9 void OnAddedToGM ()**

connects to the socket. executed by the GameManager after being "added" to the GameManager. Note This can be ignored by client developers.

5.15.3.10 void OnPluginLoaded (PluginManager::LibraryRegistry::value_type & *entry*) [protected]

a slot to be executed when loading each plugin. Note This can be ignored by client developers.

5.15.3.11 void OnPluginUnloaded (PluginManager::LibraryRegistry::value_type & *plugin*) [protected]

a slot to be executed when unloading each plugin. Note This can be ignored by client developers.

5.15.3.12 void OnRemovedFromGM ()

disconnects from the socket. executed by the GameManager after being "removed" from the GameManager. Note This can be ignored by client developers.

Todo

remove the controlled entities.

5.15.3.13 void ProcessMessage (const dtGame::Message & *msg*)

executed by the GameManager for observing any Message passing. Note This can be ignored by client developers.

Todo

should it handle a pause message, by not updating the incoming or outgoing network classes?

5.15.3.14 void UnloadPlugins () [protected]

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

- [mastercomponent.h](#)
- [mastercomponent.cpp](#)

5.16 NodeName Struct Reference

a static definition of the scene graph node names to be used for articulated parts.

```
#include <inc/dtDIS/articulationconstants.h>
```

Static Public Attributes

- static const char [NODE_PRIMARY_GUN](#) [] = { "dof_gun_01\0" }
- static const char [NODE_PRIMARY_TURRET](#) [] = { "dof_turret_01\0" }
- static const char [NODE_SECONDARY_GUN](#) [] = { "dof_gun_02\0" }

5.16.1 Detailed Description

a static definition of the scene graph node names to be used for articulated parts.

5.16.2 Member Data Documentation

5.16.2.1 `const char NODE_PRIMARY_GUN = { "dof_gun_01\0" } [static]`

5.16.2.2 `const char NODE_PRIMARY_TURRET = { "dof_turret_01\0" } [static]`

5.16.2.3 `const char NODE_SECONDARY_GUN = { "dof_gun_02\0" } [static]`

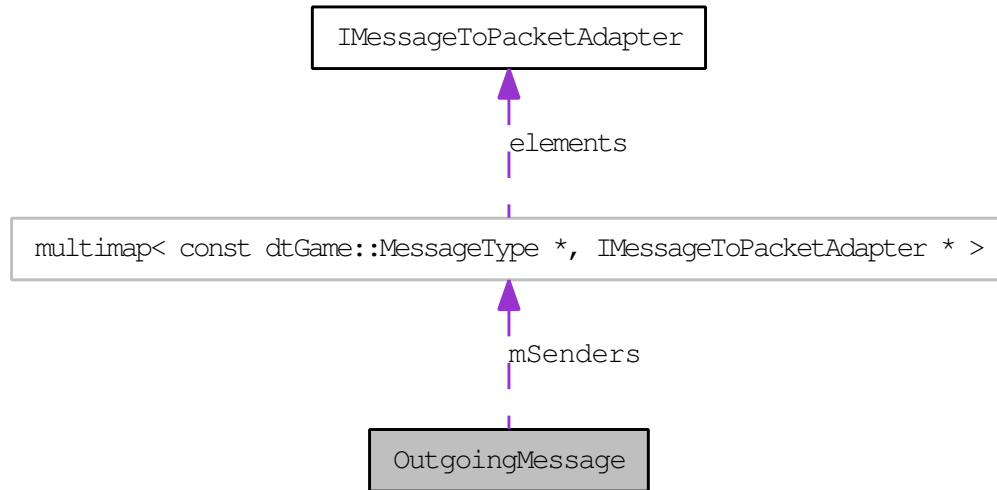
The documentation for this struct was generated from the following files:

- [articulationconstants.h](#)
- [articulationconstants.cpp](#)

5.17 OutgoingMessage Class Reference

A framework for translating dtGame::Message instances to PDUs.

#include <inc/dtDIS/outgoingmessage.h> Collaboration diagram for OutgoingMessage:



Public Types

- typedef std::multimap< const dtGame::MessageType *, IMessageToPacketAdapter * > AdapterMap
the container type for message adapters.

Public Member Functions

- [OutgoingMessage](#) (DIS::Endian stream, unsigned char exercise)
setup the network support.
- void [AddAdaptor](#) (const dtGame::MessageType *mt, IMessageToPacketAdapter *adapter)
- void [ClearData](#) ()
- const AdapterMap & [GetAdapters](#) ()
- const DIS::DataStream & [GetData](#) () const
- void [Handle](#) (const DIS::Pdu &pdu)
- void [Handle](#) (const dtGame::Message &msg)
- void [RemoveAdaptor](#) (const dtGame::MessageType *mt, IMessageToPacketAdapter *adapter)

5.17.1 Detailed Description

A framework for translating dtGame::Message instances to PDUs. Register adapters to handle specific dtGame::MessageTypes.

5.17.2 Member Typedef Documentation

5.17.2.1 typedef std::multimap<const dtGame::MessageType*,IMessageToPacketAdapter*> AdapterMap

the container type for message adapters.

5.17.3 Constructor & Destructor Documentation

5.17.3.1 OutgoingMessage (DIS::Endian stream, unsigned char exercise)

setup the network support. Parameters

stream the endian type to be used for the network stream.

exercise the [DIS](#) exercise identifier for this simulator.

5.17.4 Member Function Documentation

5.17.4.1 **void AddAdaptor (const dtGame::MessageType * *mt*, IMessageToPacketAdapter * *adapter*)**

5.17.4.2 **void ClearData ()**

5.17.4.3 **const AdapterMap& GetAdapters () [inline]**

5.17.4.4 **const DIS::DataStream & GetData () const**

5.17.4.5 **void Handle (const DIS::Pdu & *pdu*)**

5.17.4.6 **void Handle (const dtGame::Message & *msg*)**

Todo

use the rest of the adapters in the multimap container.

5.17.4.7 **void RemoveAdaptor (const dtGame::MessageType * *mt*, IMessageToPacketAdapter * *adapter*)**

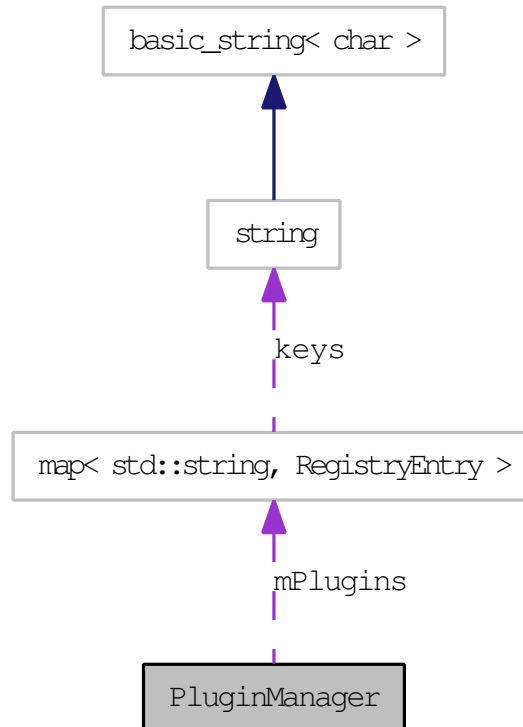
The documentation for this class was generated from the following files:

- [outgoingmessage.h](#)
- [outgoingmessage.cpp](#)

5.18 PluginManager Class Reference

manages a container of available plugins.

#include <inc/dtDIS/pluginmanager.h> Collaboration diagram for PluginManager:



Public Types

- typedef dtDIS::details::CreateDestroyPolicy< IDISPlugin > LibLoaderT
convenience typedef.
- typedef std::map< std::string, RegistryEntry > LibraryRegistry
a mapping from the library path loaded to an object with defined entry points.
- typedef sigslot::signal2< const std::string &, RegistryEntry & > PluginSignal
specifies the required function signature for slots observing plugin events.
- typedef LibLoaderT::LibraryInterface RegistryEntry
the stored type, also passed to observers upon notification.

Public Member Functions

- PluginSignal & GetLoadedSignal ()
get the signal instance in order to connect or disconnect to the loaded event.
- LibraryRegistry & GetRegistry ()
get the plugin container
- const LibraryRegistry & GetRegistry () const
get the plugin container
- PluginSignal & GetUnloadedSignal ()

get the signal instance in order to connect or disconnnet to the unloaded event.

- bool **LoadPlugin** (const std::string &path)
searches for the file, notifies observers of the new plugin.
- void **UnloadAllPlugins** ()
will call this->UnloadPlugin for all of the known plugins.
- bool **UnloadPlugin** (const std::string &path)
notifies observers that the memory will be released if the path is a loaded library, releases the memory for library.

5.18.1 Detailed Description

manages a container of available plugins. notifies observers when plugins are added or removed to the container.

5.18.2 Member Typedef Documentation

5.18.2.1 typedef dtDIS::details::CreateDestroyPolicy<IDISPlugin> LibLoaderT

convenience typedef.

5.18.2.2 typedef std::map<std::string,RegistryEntry> LibraryRegistry

a mapping from the library path loaded to an object with defined entry points.

5.18.2.3 typedef sigslot::signal2<const std::string&, RegistryEntry&> PluginSignal

specifies the required function signature for slots observing plugin events.

5.18.2.4 typedef LibLoaderT::LibraryInterface RegistryEntry

the stored type, also passed to observers upon notification.

5.18.3 Member Function Documentation

5.18.3.1 PluginManager::PluginSignal & GetLoadedSignal ()

get the signal instance in order to connect or disconnnet to the loaded event.

5.18.3.2 PluginManager::LibraryRegistry & GetRegistry ()

get the plugin container

5.18.3.3 const PluginManager::LibraryRegistry & GetRegistry () const

get the plugin container

5.18.3.4 PluginManager::PluginSignal & GetUnloadedSignal ()

get the signal instance in order to connect or disconnnet to the unloaded event.

5.18.3.5 bool LoadPlugin (const std::string & *path*)

searches for the file, notifies observers of the new plugin. Parameters

path the file path for the library to be loaded.

Returns true if the plugin was successfully added to the registry

5.18.3.6 void UnloadAllPlugins ()

will call this->UnloadPlugin for all of the known plugins.

5.18.3.7 bool UnloadPlugin (const std::string & *path*)

notifies observers that the memory will be released if the path is a loaded library, releases the memory for library.
Parameters

path the file path for the library to be loaded.

Returns true if the plugin path was found in the registry.

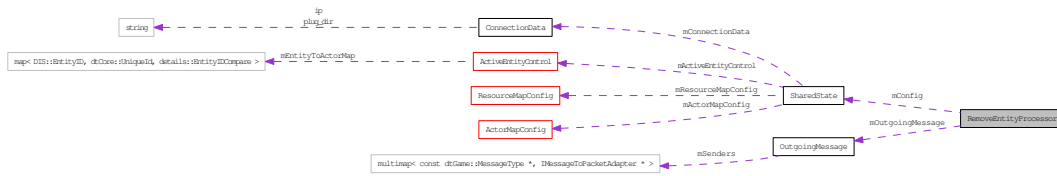
The documentation for this class was generated from the following files:

- [pluginmanager.h](#)
- [pluginmanager.cpp](#)

5.19 RemoveEntityProcessor Class Reference

the plugin's model of how to respond to the DIS::RemoveEntityPdu message.

`#include <inc/dtDIS/plugins/default/removeentityprocessor.h>` Collaboration diagram for RemoveEntityProcessor:



Public Member Functions

- [RemoveEntityProcessor](#) ([OutgoingMessage](#) *omsg, [SharedState](#) *config)
- [~RemoveEntityProcessor](#) ()
- void [Process](#) (const DIS::Pdu &p)

5.19.1 Detailed Description

the plugin's model of how to respond to the DIS::RemoveEntityPdu message.

5.19.2 Constructor & Destructor Documentation

5.19.2.1 RemoveEntityProcessor (OutgoingMessage * omsg, SharedState * config)

5.19.2.2 ~RemoveEntityProcessor ()

5.19.3 Member Function Documentation

5.19.3.1 void Process (const DIS::Pdu & p)

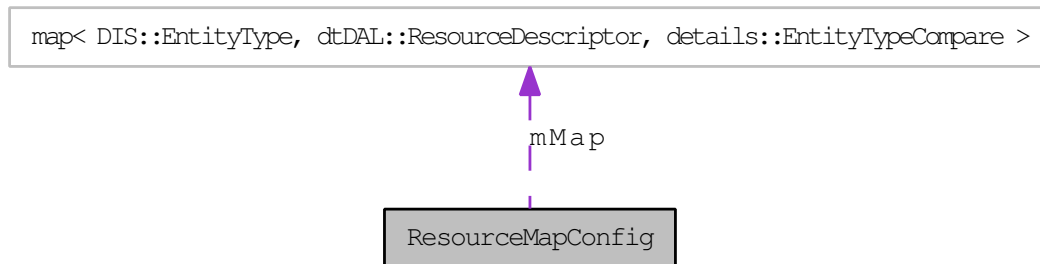
The documentation for this class was generated from the following files:

- [removeentityprocessor.h](#)
- [removeentityprocessor.cpp](#)

5.20 ResourceMapConfig Struct Reference

a structure to maintain the relationship between the DIS::EntityID and the resources available.

#include <inc/dtDIS/sharedstate.h> Collaboration diagram for ResourceMapConfig:



Public Member Functions

- bool [AddResourceMapping](#) (const DIS::EntityType &eid, const dtDAL::ResourceDescriptor &resource)
Adds a mapping from the DIS::EntityID to the resource identifier if no mapping exists.
- bool [GetMappedResource](#) (const DIS::EntityType &eid, const dtDAL::ResourceDescriptor *&toWrite) const
Introduces the ActorType mapped to the EntityID.
- bool [RemoveResourceMapping](#) (const DIS::EntityType &eid)
Takes the one to one mapping from the container for the supplied key.

5.20.1 Detailed Description

a structure to maintain the relationship between the DIS::EntityID and the resources available.

5.20.2 Member Function Documentation

5.20.2.1 bool AddResourceMapping (const DIS::EntityType & eid, const dtDAL::ResourceDescriptor & resource)

Adds a mapping from the DIS::EntityID to the resource identifier if no mapping exists. Returns true if no previous mapping existed. false if a mapping existed already.

5.20.2.2 bool GetMappedResource (const DIS::EntityType & eid, const dtDAL::ResourceDescriptor *& toWrite) const

Introduces the ActorType mapped to the EntityID. Parameters

toWrite Overwritten with the instance of the mapped resource identifier.

eid The key being stored.

Returns true if eid was found in the map. false if it was not found.

5.20.2.3 bool RemoveResourceMapping (const DIS::EntityType & eid)

Takes the one to one mapping from the container for the supplied key. Parameters

eid the key to the mapping.

Returns true if eid was found and removed from the map. false if it was not removed.

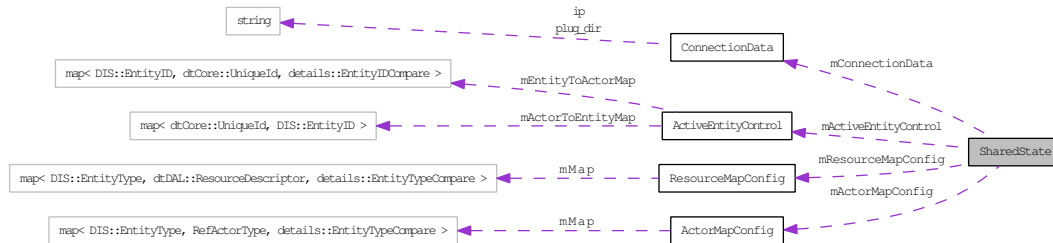
The documentation for this struct was generated from the following files:

- [sharedstate.h](#)
- [sharedstate.cpp](#)

5.21 SharedState Class Reference

The data to be shared among plugins.

#include <inc/dtDIS/sharedstate.h> Collaboration diagram for SharedState:



Public Member Functions

- [SharedState](#) (const std::string &connectionXMLFile="", const std::string &entityMappingXMLFile="")
- [~SharedState](#) ()
- const [ActiveEntityControl](#) & [GetActiveEntityControl](#) () const
- [ActiveEntityControl](#) & [GetActiveEntityControl](#) ()
- const [ActorMapConfig](#) & [GetActorMap](#) () const
- [ActorMapConfig](#) & [GetActorMap](#) ()
- unsigned short [GetApplicationID](#) () const
- const [ConnectionData](#) & [GetConnectionData](#) () const
- dtUtil::Coordinates & [GetCoordinateConverter](#) ()
- const dtUtil::Coordinates & [GetCoordinateConverter](#) () const
- const [ResourceMapConfig](#) & [GetResourceMap](#) () const
- [ResourceMapConfig](#) & [GetResourceMap](#) ()
- unsigned short [GetSiteID](#) () const
- void [SetApplicationID](#) (unsigned short ID)
- void [SetConnectionData](#) (const [ConnectionData](#) &data)
- void [SetCoordinateConverter](#) (const dtUtil::Coordinates &coordConverter)
- void [SetSiteID](#) (unsigned short ID)

5.21.1 Detailed Description

The data to be shared among plugins.

Todo

it would be good to have a file that maps the 'appearance' values to an asset handle, rather than full actor "types" just to change the asset.

5.21.2 Constructor & Destructor Documentation

5.21.2.1 **SharedState** (const std::string & *connectionXMLFile* = "", const std::string & *entityMappingXMLFile* = "")

5.21.2.2 **~SharedState** ()

5.21.3 Member Function Documentation

5.21.3.1 **const ActiveEntityControl & GetActiveEntityControl** () const

5.21.3.2 **ActiveEntityControl & GetActiveEntityControl** ()

5.21.3.3 **const ActorMapConfig & GetActorMap** () const

5.21.3.4 **ActorMapConfig & GetActorMap** ()

5.21.3.5 **unsigned short GetApplicationID** () const

5.21.3.6 **const ConnectionData & GetConnectionData** () const

5.21.3.7 **dtUtil::Coordinates & GetCoordinateConverter** ()

5.21.3.8 **const dtUtil::Coordinates & GetCoordinateConverter** () const

5.21.3.9 **const ResourceMapConfig & GetResourceMap** () const

5.21.3.10 **ResourceMapConfig & GetResourceMap** ()

5.21.3.11 **unsigned short GetSiteID** () const

5.21.3.12 **void SetApplicationID** (unsigned short *ID*)

5.21.3.13 **void SetConnectionData** (const ConnectionData & *data*)

5.21.3.14 **void SetCoordinateConverter** (const dtUtil::Coordinates & *coordConverter*)

5.21.3.15 **void SetSiteID** (unsigned short *ID*)

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

- [sharedstate.h](#)
- [sharedstate.cpp](#)

5.22 ValueMap Struct Reference

a name scope for all sorts of mappings

```
#include <inc/dtDIS/valuemaps.h>
```

Static Public Member Functions

- static bool [GetArticulationMotionPropertyName](#) (unsigned int *motiontype*, std::string &*propertyname*)
find the actor property name value for the supported motiontype associated with articulation.
- static bool [GetArticulationNodeName](#) (unsigned int *parttype*, std::string &*nodename*)
find the supported node name for the part type identifier.
- static bool [GetDeadReckoningModelPropertyValue](#) (unsigned char *drm*, std::string &*property*)
maps the provided dead reckoning model to the supported Delta3D property value.
- static bool [GetRequiresGroundClamping](#) (const DIS::EntityType &*etype*, bool &*requires*)
informs clients if the EntityType should support ground clamping.

5.22.1 Detailed Description

a name scope for all sorts of mappings

5.22.2 Member Function Documentation

5.22.2.1 bool [GetArticulationMotionPropertyName](#) (unsigned int *motiontype*, std::string & *propertyname*) [static]

find the actor property name value for the supported motiontype associated with articulation. Parameters

motiontype the [DIS](#) standard type of motion.

propertyname the corresponding name of the property for the motiontype.

Returns true if the motiontype is supported

5.22.2.2 bool [GetArticulationNodeName](#) (unsigned int *parttype*, std::string & *nodename*) [static]

find the supported node name for the part type identifier. Parameters

parttype the part identifier in the DIS::ArticulationParameter

nodename the string value of the scenegraph node to be searched when performing articulation.

Returns true if parttype is supported, false if it is not supported.

5.22.2.3 bool [GetDeadReckoningModelPropertyValue](#) (unsigned char *drm*, std::string & *property*) [static]

maps the provided dead reckoning model to the supported Delta3D property value. Parameters

drm the dead reckoning model.

property the value to be assigned which is mapped to the drm.

Returns true if the value of drm is supported.

5.22.2.4 bool GetRequiresGroundClamping (const DIS::EntityType & *etype*, bool & *requires*) [static]

informs clients if the EntityType should support ground clamping. Parameters

requires modified to true when the EntityType should be ground clamped.

etype the EntityType interested to know if ground clamping is desired.

Returns true if there exists a known interpretation of the EntityType

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

- [valuemaps.h](#)
- [valuemaps.cpp](#)

5.23 XMLFiles Struct Reference

constant definitions for the official schema files.

```
#include <inc/dtDIS/disxml.h>
```

Static Public Attributes

- static const char [XML_CONNECTION_SCHEMA_FILE](#) [] = {"dis_connection.xsd\0"}
- static const char [XML_MAPPING_SCHEMA_FILE](#) [] = {"dis_mapping.xsd\0"}

5.23.1 Detailed Description

constant definitions for the official schema files.

5.23.2 Member Data Documentation

5.23.2.1 XERCES_CPP_NAMESPACE_USE const char [XML_CONNECTION_SCHEMA_FILE](#) = {"dis_connection.xsd\0"} [static]

5.23.2.2 const char [XML_MAPPING_SCHEMA_FILE](#) = {"dis_mapping.xsd\0"} [static]

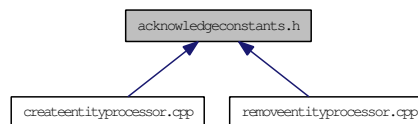
The documentation for this struct was generated from the following files:

- [disxml.h](#)
- [disxml.cpp](#)

File Documentation

6.1 acknowledgeconstants.h File Reference

This graph shows which files directly or indirectly include this file:



Namespaces

- namespace `dtDIS`
the Delta3D support framework for the `DIS` network protocol.

Enumerations

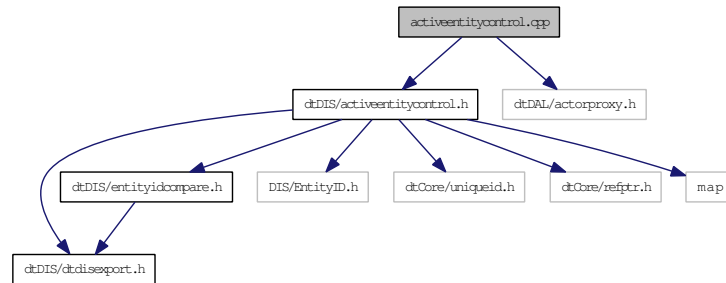
- enum `AcknowledgeFlag` { `ACKNOWLEDGE_CREATE_ENTITY` = 1, `ACKNOWLEDGE_REMOVE_ENTITY` = 2, `ACKNOWLEDGE_START_RESUME` = 3, `ACKNOWLEDGE_STOP_FREEZE` = 4 }
- enum `ResponseFlag` { `RESPONSE_OTHER` = 0, `RESPONSE_ABLE_TO_COMPLY` = 1, `RESPONSE_UNABLE_TO_COMPLY` = 2 }

6.2 activeentitycontrol.cpp File Reference

```
#include <dtDIS/activeentitycontrol.h>
```

```
#include <dtDAL/actorproxy.h>
```

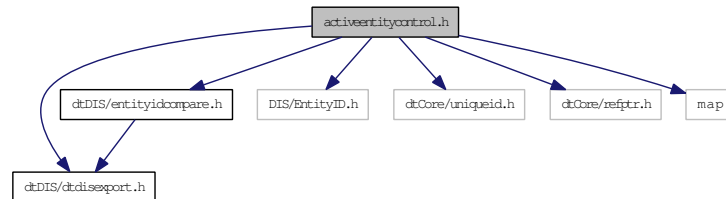
Include dependency graph for activeentitycontrol.cpp:



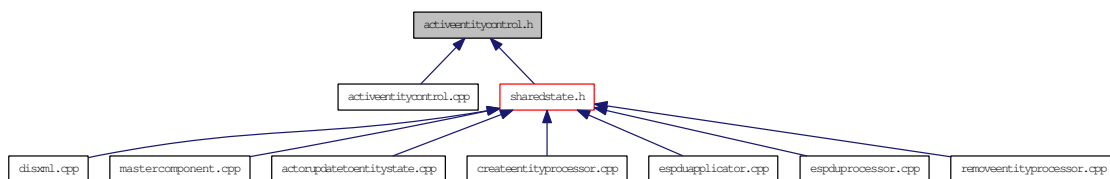
6.3 activeentitycontrol.h File Reference

```
#include <dtDIS/dtdisexport.h>
#include <dtDIS/entityidcompare.h>
#include <DIS/EntityID.h>
#include <dtCore/uniqueid.h>
#include <dtCore/refptr.h>
#include <map>
```

Include dependency graph for activeentitycontrol.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct [ActiveEntityControl](#)
provides a single point for associating known entities & actors.

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

6.4 actorupdatetoentitystate.cpp File Reference

```
#include <dtDIS/plugins/default/actorupdatetoentitystate.h>
#include <dtDIS/plugins/default/espduapplicator.h>
#include <dtDIS/propertyname.h>
#include <DIS/EntityStatePdu.h>
#include <DIS/EntityType.h>
#include <dtDAL/enginepropertytypes.h>
#include <dtGame/actorupdatemessage.h>
#include <dtDIS/sharedstate.h>
#include <dtGame/gamemanager.h>
#include <dtUtil/stringutils.h>
```

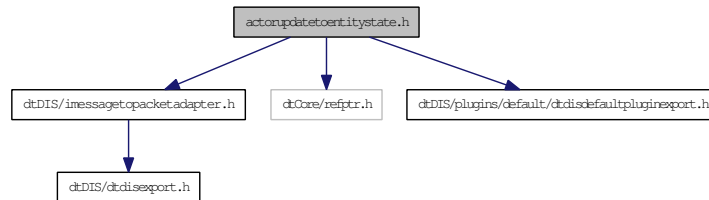
6.5 actorupdatetoentitystate.h File Reference

```
#include <dtDIS/imessagetopacketadapter.h>
```

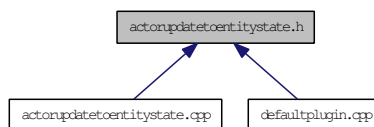
```
#include <dtCore/refptr.h>
```

```
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

Include dependency graph for actorupdatetoentitystate.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [ActorUpdateToEntityState](#)
responsible for translating ActorUpdateMessage instances to EntityStatePdu instances.

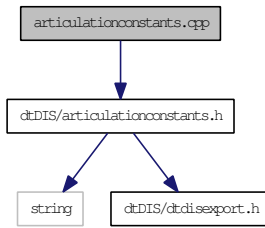
Namespaces

- namespace [DIS](#)
- namespace [dtCore](#)
- namespace [dtDIS](#)
the Delta3D support framework for the DIS network protocol.
- namespace [dtGame](#)

6.6 articulationconstants.cpp File Reference

```
#include <dtDIS/articulationconstants.h>
```

Include dependency graph for articulationconstants.cpp:

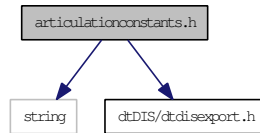


6.7 articulationconstants.h File Reference

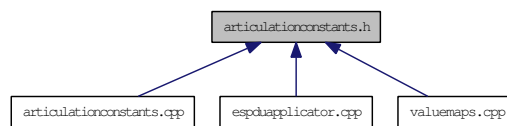
```
#include <string>
```

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for articulationconstants.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct [NodeName](#)

a static definition of the scene graph node names to be used for articulated parts.

Namespaces

- namespace [dtDIS](#)

the Delta3D support framework for the [DIS](#) network protocol.

- namespace [dtDIS::Articulation](#)

the scope for articulation specific constants, lacking in the [DIS](#) dependency, and other tools.

Enumerations

- enum [MotionType](#) { [MOTION_AZIMUTH](#) = 11, [MOTION_AZIMUTH_RATE](#) = 12, [MOTION_ELEVATION](#) = 13 }
- enum [ParameterTypeDesignator](#) { [ARTICULATED_PART](#) = 0, [ATTACHED_PART](#) = 1 }
- enum [PartType](#) { [PART_PRIMARY_TURRET](#) = 4096, [PART_PRIMARY_GUN](#) = 4416, [PART_SECONDARY_GUN](#) = 6016 }

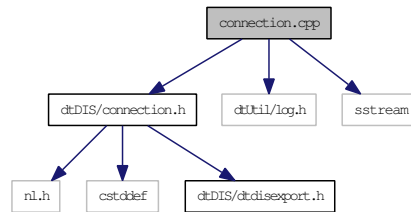
6.8 connection.cpp File Reference

```
#include <dtDIS/connection.h>
```

```
#include <dtUtil/log.h>
```

```
#include <sstream>
```

Include dependency graph for connection.cpp:



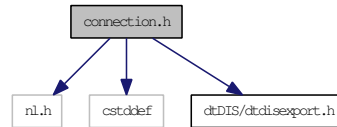
6.9 connection.h File Reference

```
#include <nl.h>
```

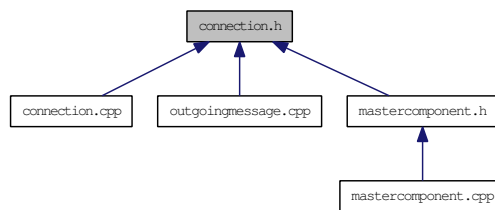
```
#include <cstdint>
```

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for connection.h:



This graph shows which files directly or indirectly include this file:



Classes

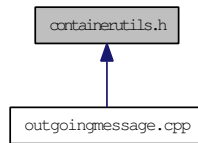
- class [Connection](#)
Makes a multicast connection to support [DIS](#) networks.

Namespaces

- namespace [dtDIS](#)
the [Delta3D](#) support framework for the [DIS](#) network protocol.

6.10 containerutils.h File Reference

This graph shows which files directly or indirectly include this file:



Namespaces

- namespace [dtUtil](#)

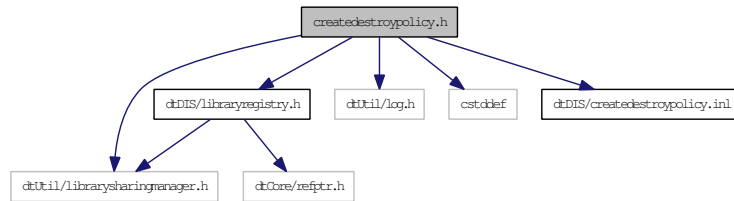
Functions

- `template<class MMTyp >`
`MMType::iterator find_multimap_pair (MMType &mmap, const typename MMTyp::key_type &key, const typename MMTyp::mapped_type &value)`
find the iterator for the unique key-value pair.

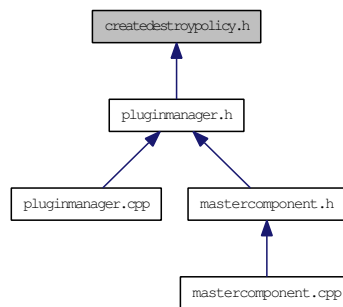
6.11 createdestroypolicy.h File Reference

```
#include <dtDIS/libraryregistry.h>
#include <dtUtil/librarysharingmanager.h>
#include <dtUtil/log.h>
#include <cstdlib>
#include <dtDIS/createdestroypolicy.inl>
```

Include dependency graph for createdestroypolicy.h:



This graph shows which files directly or indirectly include this file:

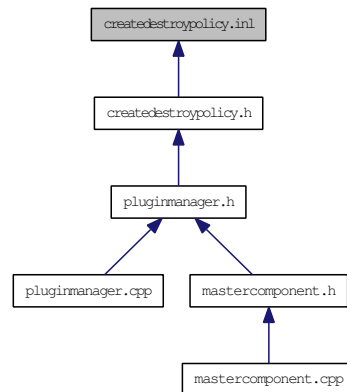


Namespaces

- namespace `dtDIS`
the Delta3D support framework for the `DIS` network protocol.

6.12 createdestroypolicy.inl File Reference

This graph shows which files directly or indirectly include this file:



6.13 createentityprocessor.cpp File Reference

```
#include <dtDIS/plugins/default/createentityprocessor.h>
```

```
#include <dtDIS/outgoingmessage.h>
```

```
#include <dtDIS/sharedstate.h>
```

```
#include <DIS/CreateEntityPdu.h>
```

```
#include <DIS/AcknowledgePdu.h>
```

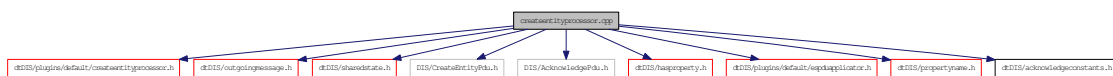
```
#include <dtDIS/hasproperty.h>
```

```
#include <dtDIS/plugins/default/espduapplicator.h>
```

```
#include <dtDIS/propertyname.h>
```

```
#include <dtDIS/acknowledgeconstants.h>
```

Include dependency graph for createentityprocessor.cpp:

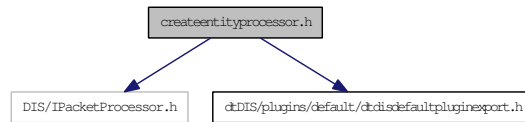


6.14 createentityprocessor.h File Reference

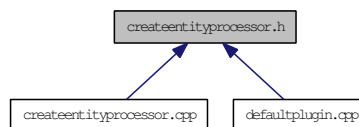
```
#include <DIS/IPacketProcessor.h>
```

```
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

Include dependency graph for createentityprocessor.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [CreateEntityProcessor](#)
the plugin's model of how to respond to the `DIS::CreateEntityPdu` message.

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the `DIS` network protocol.

6.15 defaultplugin.cpp File Reference

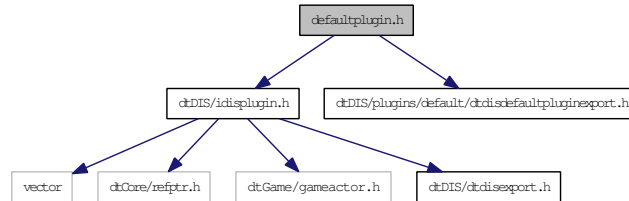
```
#include <dtDIS/plugins/default/defaultplugin.h>
#include <DIS/EntityStatePdu.h>
#include <DIS/IncomingMessage.h>
#include <dtDIS/outgoingmessage.h>
#include <dtGame/gamemanager.h>
#include <vector>
#include <dtCore/refptr.h>
#include <dtDAL/actortype.h>
#include <DIS/PDUType.h>
#include <cstdint>
#include <dtDIS/plugins/default/espduprocessor.h>
#include <dtDIS/plugins/default/createentityprocessor.h>
#include <dtDIS/plugins/default/removeentityprocessor.h>
#include <dtDIS/plugins/default/actorupdatetoentitystate.h>
```

6.16 defaultplugin.h File Reference

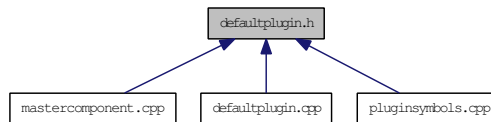
```
#include <dtDIS/idisplugin.h>
```

```
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

Include dependency graph for defaultplugin.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [DefaultPlugin](#)
the plugin to support various DIS::Pdu types.

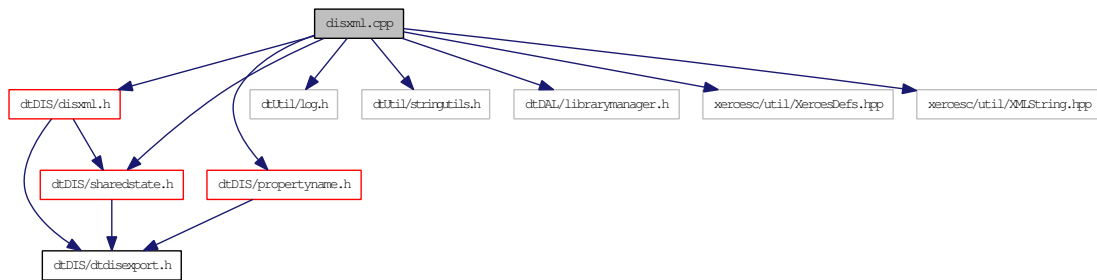
Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the DIS network protocol.

6.17 disxml.cpp File Reference

```
#include <dtDIS/disxml.h>
#include <dtDIS/sharedstate.h>
#include <dtDIS/propertyname.h>
#include <dtUtil/log.h>
#include <dtUtil/stringutils.h>
#include <dtDAL/librarymanager.h>
#include <xercesc/util/XercesDefs.hpp>
#include <xercesc/util/XMLString.hpp>
```

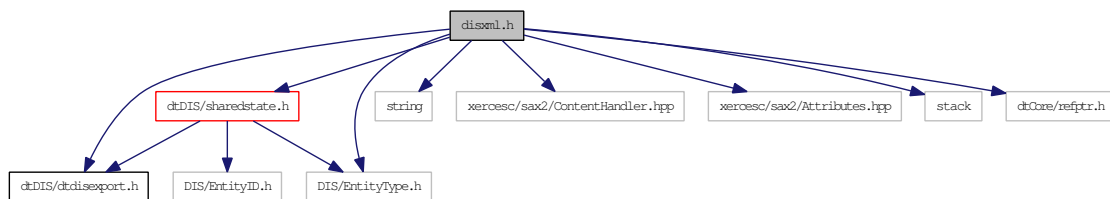
Include dependency graph for disxml.cpp:



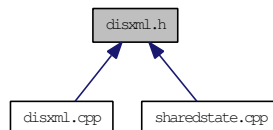
6.18 disxml.h File Reference

```
#include <dtDIS/dtdisexport.h>
#include <string>
#include <xercesc/sax2/ContentHandler.hpp>
#include <xercesc/sax2/Attributes.hpp>
#include <stack>
#include <DIS/EntityType.h>
#include <dtCore/refptr.h>
#include <dtDIS/sharedstate.h>
```

Include dependency graph for disxml.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [ConnectionXMLHandler](#)
Reads the connection info from a config file.
- class [EntityMapXMLHandler](#)
Stores configuration data loaded from a file for the purposes of mapping [DIS](#) to Delta3D.
- struct [XMLFiles](#)
constant definitions for the official schema files.

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

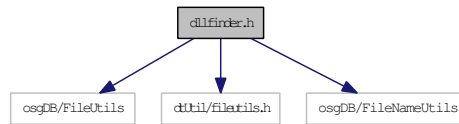
6.19 dllfinder.h File Reference

```
#include <osgDB/FileUtils>
```

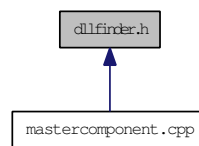
```
#include <dtUtil/fileutils.h>
```

```
#include <osgDB/FileNameUtils>
```

Include dependency graph for dllfinder.h:



This graph shows which files directly or indirectly include this file:



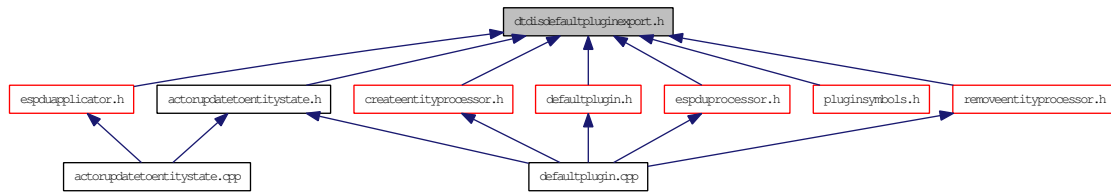
Namespaces

- namespace [dtDIS](#)

the Delta3D support framework for the [DIS](#) network protocol.

6.20 dtdisdefaultpluginexport.h File Reference

This graph shows which files directly or indirectly include this file:



Defines

- #define [DT_DIS_DEFAULT_EXPORT](#)

6.20.1 Define Documentation

6.20.1.1 #define DT_DIS_DEFAULT_EXPORT

6.21 dtDisexport.h File Reference

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

Defines

- #define [DT_DIS_EXPORT](#)

6.21.1 Define Documentation

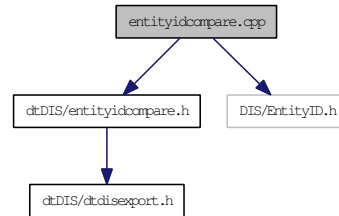
6.21.1.1 #define DT_DIS_EXPORT

6.22 entityidcompare.cpp File Reference

```
#include <dtDIS/entityidcompare.h>
```

```
#include <DIS/EntityID.h>
```

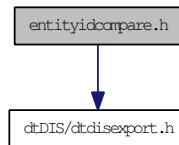
Include dependency graph for entityidcompare.cpp:



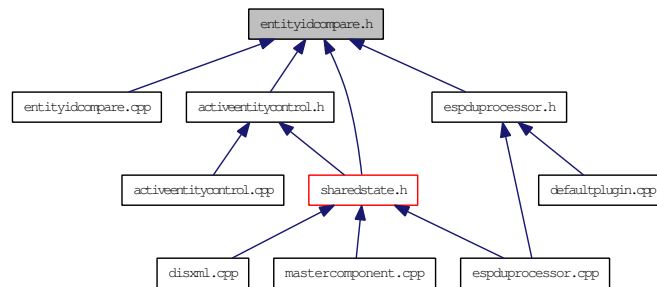
6.23 entityidcompare.h File Reference

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for entityidcompare.h:



This graph shows which files directly or indirectly include this file:



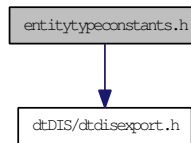
Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

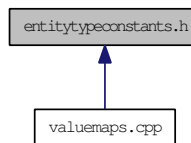
6.24 entitytypeconstants.h File Reference

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for entitytypeconstants.h:



This graph shows which files directly or indirectly include this file:



Namespaces

- namespace `dtDIS`
the Delta3D support framework for the DIS network protocol.

Enumerations

- enum `DomainType` {
`DOMAIN_LAND = 1, DOMAIN_AIR = 2, DOMAIN_SURFACE = 3, DOMAIN_SUBSURFACE = 4,`
`DOMAIN_SPACE = 5 }`

6.25 espduapplicator.cpp File Reference

```
#include <dtDIS/plugins/default/espduapplicator.h>
#include <DIS/EntityStatePdu.h>
#include <DIS/Conversion.h>
#include <DIS/StreamUtils.h>
#include <DIS/Orientation.h>
#include <dtGame/actorupdatemessage.h>
#include <dtDIS/sharedstate.h>
#include <dtDIS/valuemaps.h>
#include <dtDIS/articulationconstants.h>
#include <dtDAL/datatype.h>
#include <dtUtil/stringutils.h>
#include <dtDAL/resourcedescriptor.h>
#include <dtDIS/propertyname.h>
#include <dtDAL/actorproxy.h>
#include <dtDAL/namedparameter.h>
#include <dtGame/deadreckoningcomponent.h>
#include <dtUtil/coordinates.h>
#include <sstream>
```

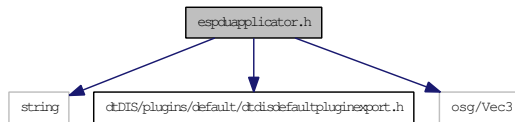
6.26 espduapplicator.h File Reference

```
#include <string>
```

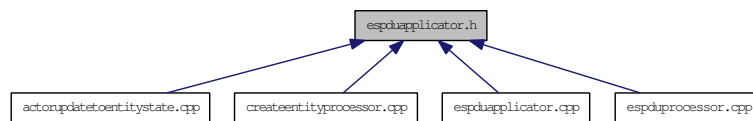
```
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

```
#include <osg/Vec3>
```

Include dependency graph for espduapplicator.h:



This graph shows which files directly or indirectly include this file:



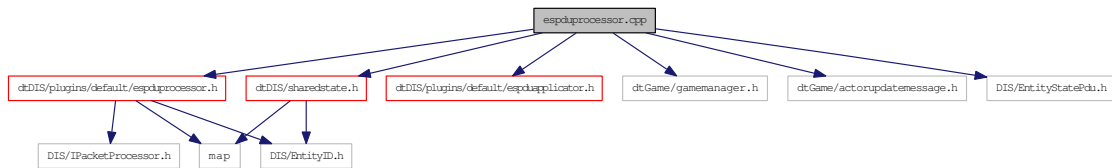
Namespaces

- namespace [dtDAL](#)
- namespace [dtDIS](#)
 - the Delta3D support framework for the [DIS](#) network protocol.*
- namespace [dtGame](#)

6.27 espduprocessor.cpp File Reference

```
#include <dtDIS/plugins/default/espduprocessor.h>
#include <dtDIS/plugins/default/espduapplicator.h>
#include <dtDIS/sharedstate.h>
#include <dtGame/gamemanager.h>
#include <dtGame/actorupdatemessage.h>
#include <DIS/EntityStatePdu.h>
```

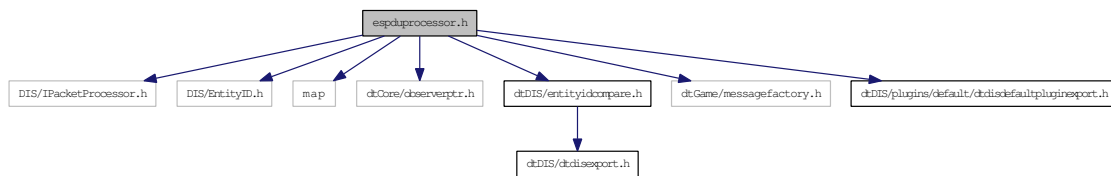
Include dependency graph for espduprocessor.cpp:



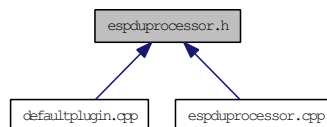
6.28 espduprocessor.h File Reference

```
#include <DIS/IPacketProcessor.h>
#include <DIS/EntityID.h>
#include <map>
#include <dtCore/observerptr.h>
#include <dtDIS/entityidcompare.h>
#include <dtGame/messagefactory.h>
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

Include dependency graph for espduprocessor.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [ESPduProcessor](#)
the interface class responsible for applying data from a `DIS::EntityStatePdu` packet.

Namespaces

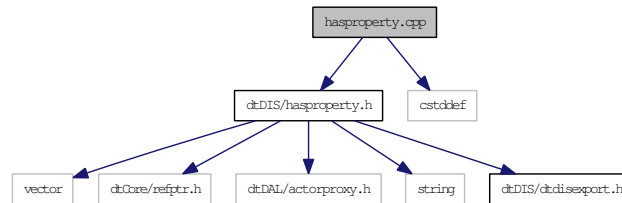
- namespace [dtDAL](#)
- namespace [dtDIS](#)
the Delta3D support framework for the `DIS` network protocol.
- namespace [dtGame](#)

6.29 hasproperty.cpp File Reference

```
#include <dtDIS/hasproperty.h>
```

```
#include <cstdlib>
```

Include dependency graph for hasproperty.cpp:



6.30 hasproperty.h File Reference

```
#include <vector>
```

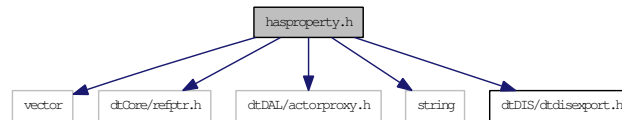
```
#include <dtCore/refptr.h>
```

```
#include <dtDAL/actorproxy.h>
```

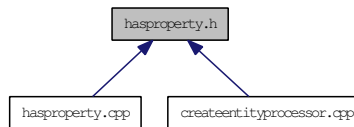
```
#include <string>
```

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for hasproperty.h:



This graph shows which files directly or indirectly include this file:



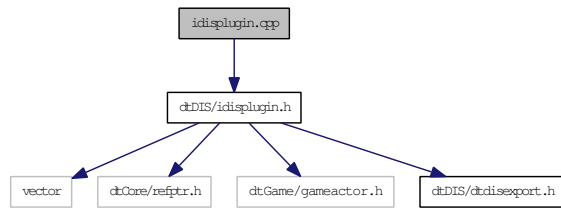
Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

6.31 idisplugin.cpp File Reference

```
#include <dtDIS/idisplugin.h>
```

Include dependency graph for idisplugin.cpp:



6.32 idisplugin.h File Reference

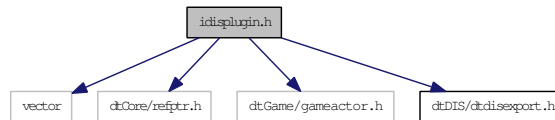
```
#include <vector>
```

```
#include <dtCore/refptr.h>
```

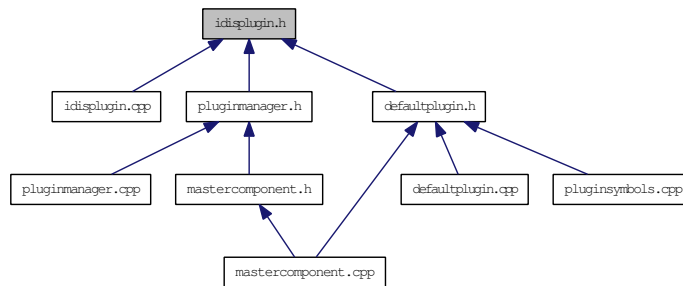
```
#include <dtGame/gameactor.h>
```

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for idisplugin.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [IDISPlugin](#)
the interface for all DIS plugins

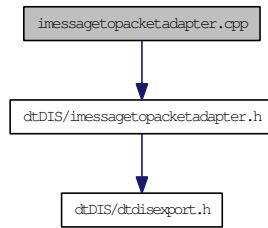
Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the DIS network protocol.
- namespace [dtGame](#)

6.33 imessagetopacketadapter.cpp File Reference

```
#include <dtDIS/imessagetopacketadapter.h>
```

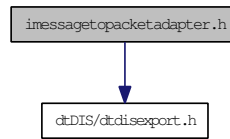
Include dependency graph for imessagetopacketadapter.cpp:



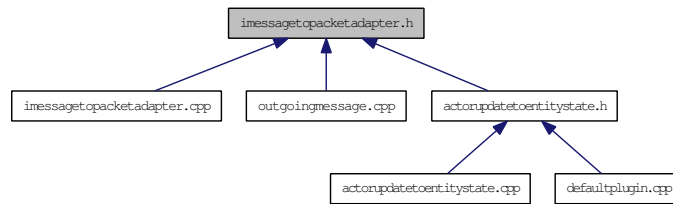
6.34 imessagetopacketadapter.h File Reference

```
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for imessagetopacketadapter.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [IMessageToPacketAdapter](#)
the interface for translating Delta3D messages into [DIS](#) packets.

Namespaces

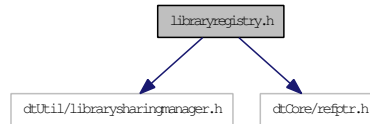
- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.
- namespace [dtGame](#)

6.35 libraryregistry.h File Reference

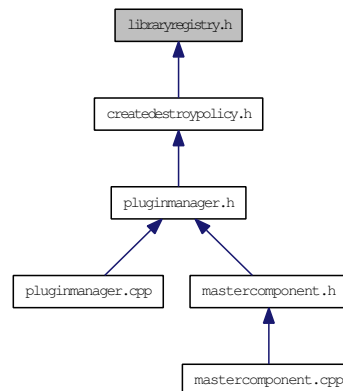
```
#include <dtUtil/librarysharingmanager.h>
```

```
#include <dtCore/refptr.h>
```

Include dependency graph for libraryregistry.h:



This graph shows which files directly or indirectly include this file:



Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

6.36 mainpage.h File Reference

6.36.1 Detailed Description

This file contains Doxygen special commands and text for the [Main Page](#) and some other minor aspects of this documentation. It is not part of Delta3D.

6.37 mastercomponent.cpp File Reference

```
#include <dtDIS/mastercomponent.h>
#include <dtDIS/sharedstate.h>
#include <DIS/PDUType.h>
#include <dtUtil/functor.h>
#include <list>
#include <dtDIS/dllfinder.h>
#include <dtDIS/plugins/default/defaultplugin.h>
#include <dtActors/engineactorregistry.h>
#include <dtActors/coordinateconfigactor.h>
```

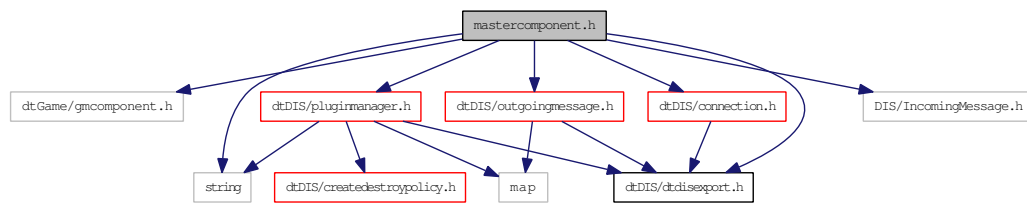
Include dependency graph for mastercomponent.cpp:



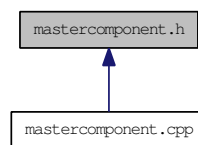
6.38 mastercomponent.h File Reference

```
#include <dtGame/gmcomponent.h>
#include <dtDIS/pluginmanager.h>
#include <dtDIS/connection.h>
#include <dtDIS/outgoingmessage.h>
#include <DIS/IncomingMessage.h>
#include <string>
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for mastercomponent.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [MasterComponent](#)
*Supports a framework to translate **DIS** PDUs into dtGame::Message instances.*

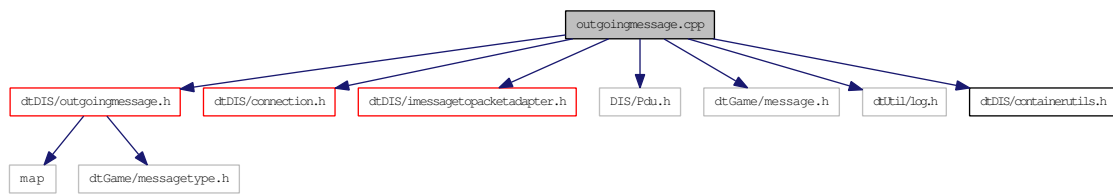
Namespaces

- namespace [dtDIS](#)
*the Delta3D support framework for the **DIS** network protocol.*

6.39 outgoingmessage.cpp File Reference

```
#include <dtDIS/outgoingmessage.h>
#include <dtDIS/connection.h>
#include <dtDIS/imessagetopacketadapter.h>
#include <DIS/Pdu.h>
#include <dtGame/message.h>
#include <dtUtil/log.h>
#include <dtDIS/containerutils.h>
```

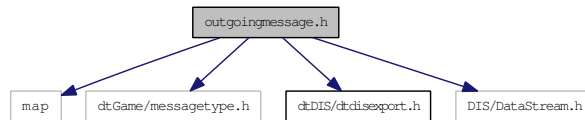
Include dependency graph for outgoingmessage.cpp:



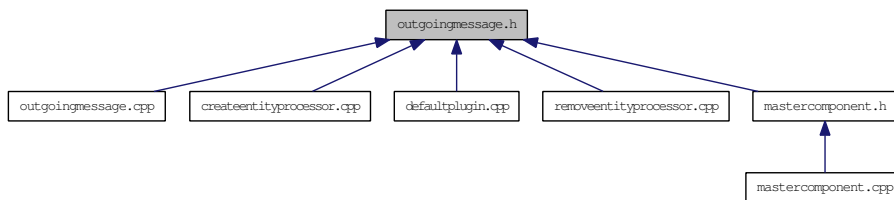
6.40 outgoingmessage.h File Reference

```
#include <map>
#include <dtGame/messagetype.h>
#include <dtDIS/dtdisexport.h>
#include <DIS/DataStream.h>
```

Include dependency graph for outgoingmessage.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [OutgoingMessage](#)
A framework for translating `dtGame::Message` instances to PDUs.

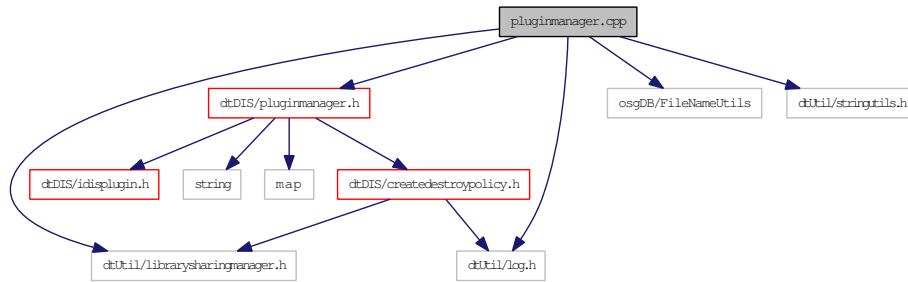
Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.
- namespace [dtGame](#)

6.41 pluginmanager.cpp File Reference

```
#include <dtDIS/pluginmanager.h>
#include <dtUtil/log.h>
#include <dtUtil/librarysharingmanager.h>
#include <osgDB/FileNameUtils>
#include <dtUtil/stringutils.h>
```

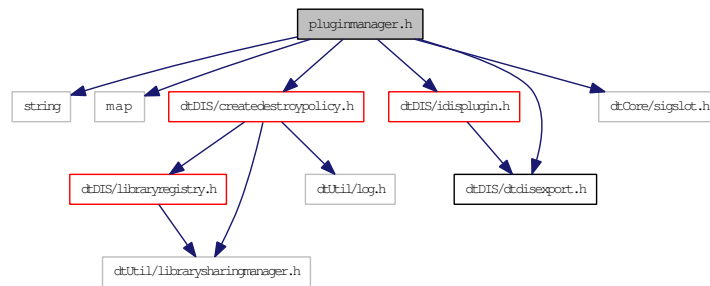
Include dependency graph for pluginmanager.cpp:



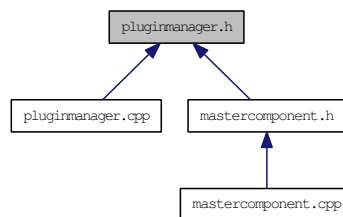
6.42 pluginmanager.h File Reference

```
#include <string>
#include <map>
#include <dtDIS/createdestroypolicy.h>
#include <dtDIS/idisplugin.h>
#include <dtCore/sigslot.h>
#include <dtDIS/dtdisexport.h>
```

Include dependency graph for pluginmanager.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [PluginManager](#)
manages a container of available plugins.

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

6.43 pluginsymbols.cpp File Reference

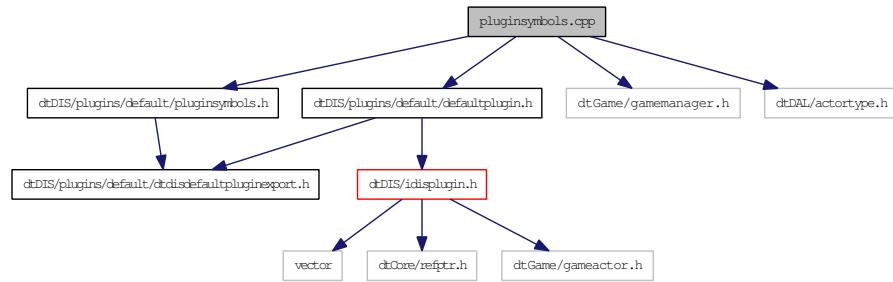
```
#include <dtDIS/plugins/default/pluginsymbols.h>
```

```
#include <dtDIS/plugins/default/defaultplugin.h>
```

```
#include <dtGame/gamemanager.h>
```

```
#include <dtDAL/actortype.h>
```

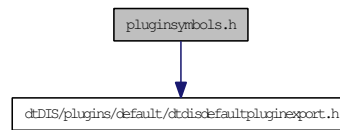
Include dependency graph for pluginsymbols.cpp:



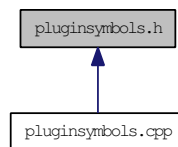
6.44 pluginsymbols.h File Reference

```
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

Include dependency graph for pluginsymbols.h:



This graph shows which files directly or indirectly include this file:



Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

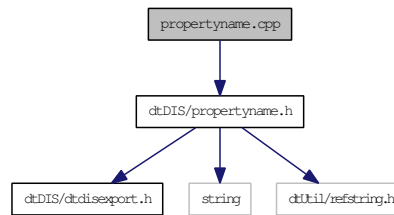
Functions

- DT_DIS_DEFAULT_EXPORT IDISPlugin * [CreateComponent](#) ()
- DT_DIS_DEFAULT_EXPORT void [DestroyComponent](#) (IDISPlugin *plugin)

6.45 propertyname.cpp File Reference

```
#include <dtDIS/propertyname.h>
```

Include dependency graph for propertyname.cpp:



Namespaces

- namespace `dtDIS`
the Delta3D support framework for the `DIS` network protocol.

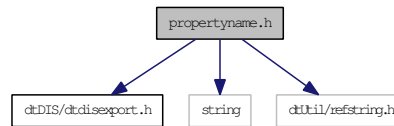
6.46 propertyname.h File Reference

```
#include <dtDIS/dtdisexport.h>
```

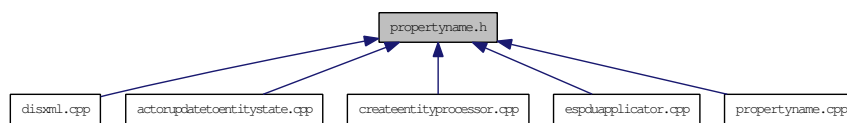
```
#include <string>
```

```
#include <dtUtil/refstring.h>
```

Include dependency graph for propertyname.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct [EnginePropertyName](#)
- struct [EntityPropertyName](#)

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

6.47 removeentityprocessor.cpp File Reference

```
#include <dtDIS/plugins/default/removeentityprocessor.h>
```

```
#include <dtDIS/outgoingmessage.h>
```

```
#include <dtDIS/sharedstate.h>
```

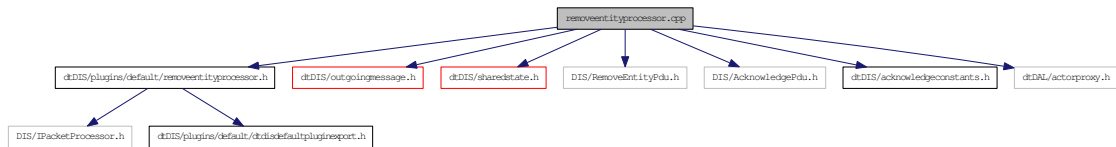
```
#include <DIS/RemoveEntityPdu.h>
```

```
#include <DIS/AcknowledgePdu.h>
```

```
#include <dtDIS/acknowledgeconstants.h>
```

```
#include <dtDAL/actorproxy.h>
```

Include dependency graph for removeentityprocessor.cpp:

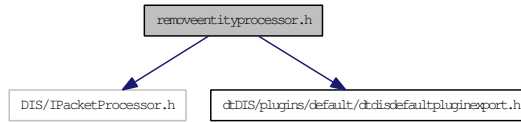


6.48 removeentityprocessor.h File Reference

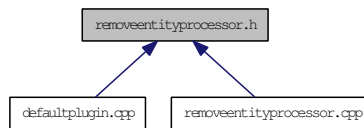
```
#include <DIS/IPacketProcessor.h>
```

```
#include <dtDIS/plugins/default/dtdisdefaultpluginexport.h>
```

Include dependency graph for removeentityprocessor.h:



This graph shows which files directly or indirectly include this file:



Classes

- class [RemoveEntityProcessor](#)
the plugin's model of how to respond to the `DIS::RemoveEntityPdu` message.

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the `DIS` network protocol.

6.49 sharedstate.cpp File Reference

```
#include <dtDIS/sharedstate.h>
```

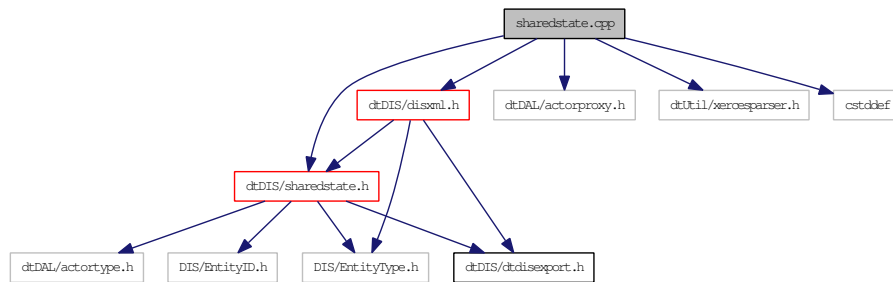
```
#include <dtDAL/actorproxy.h>
```

```
#include <dtUtil/xercesparser.h>
```

```
#include <dtDIS/disxml.h>
```

```
#include <cstdint>
```

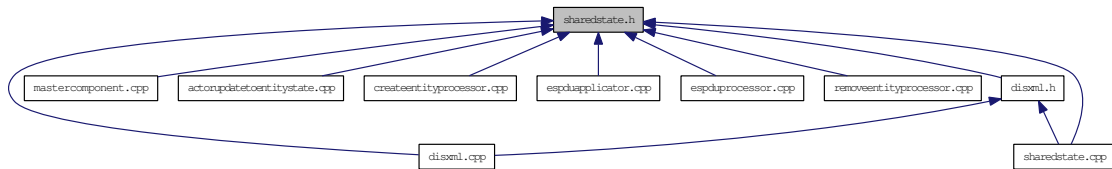
Include dependency graph for sharedstate.cpp:



6.50 sharedstate.h File Reference

```
#include <dtDIS/dtdisexport.h>
#include <DIS/EntityID.h>
#include <DIS/EntityType.h>
#include <dtDAL/actortype.h>
#include <dtDAL/resourcedescriptor.h>
#include <dtCore/uniqueid.h>
#include <dtUtil/coordinates.h>
#include <map>
#include <dtDIS/entityidcompare.h>
#include <dtDIS/activeentitycontrol.h>
```

This graph shows which files directly or indirectly include this file:



Classes

- struct [ActorMapConfig](#)
a structure to maintain the one-to-one relationship between the DIS::EntityID and the dtDAL::ActorType.
- struct [ConnectionData](#)
the information needed to connect to the DIS network.
- struct [ResourceMapConfig](#)
a structure to maintain the relationship between the DIS::EntityID and the resources available.
- class [SharedState](#)
The data to be shared among plugins.

Namespaces

- namespace [dtCore](#)
- namespace [dtDAL](#)
- namespace [dtDIS](#)
the Delta3D support framework for the DIS network protocol.

6.51 valuemaps.cpp File Reference

```
#include <dtDIS/valuemaps.h>
```

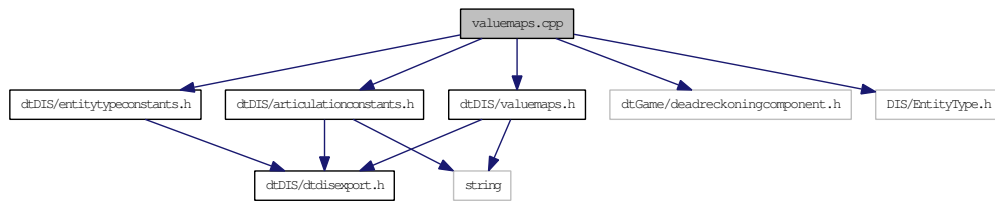
```
#include <dtDIS/articulationconstants.h>
```

```
#include <dtGame/deadreckoningcomponent.h>
```

```
#include <DIS/EntityType.h>
```

```
#include <dtDIS/entitytypeconstants.h>
```

Include dependency graph for valuemaps.cpp:

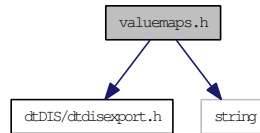


6.52 valuemaps.h File Reference

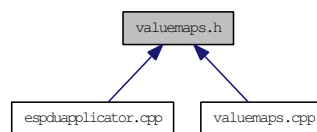
```
#include <dtDIS/dtdisexport.h>
```

```
#include <string>
```

Include dependency graph for valuemaps.h:



This graph shows which files directly or indirectly include this file:



Classes

- struct [ValueMap](#)
a name scope for all sorts of mappings

Namespaces

- namespace [dtDIS](#)
the Delta3D support framework for the [DIS](#) network protocol.

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