Voxellancer

0.2

Generated by Doxygen 1.8.6

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Contents

Chapter 1

Main Page

A game about voxels in space

Have fun!

Chapter 2

build instructions

git and cmake should be on the path!

windows:

Visual Studio 2013 is required

execute:

```
git clone https://github.com/voxelinc/voxellancer.git
pushd voxellancer
git submodule init
git submodule update
pushd lib
unzip lib.zip
popd
mkdir build
pushd build
cmake -G "Visual Studio 12 Win64" ..
popd
```

now start voxellancer.sln und set the debugging working directory for voxellancer to "$(ProjectDir)/../.."

linux:

(tested on ubuntu 13.10)

execute:

```
git clone https://github.com/voxelinc/voxellancer.git
cd voxellancer
./lib/setup_libs.sh
mkdir build
cd build
cmake ..
make voxellancer
```

Chapter 3

Hierarchical Index

3.1 Class Hierarchy

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

Chapter 4

Class Index

4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 5

Class Documentation

5.1 AbstractMove Class Reference

Public Member Functions

- **AbstractMove** (const glm::vec3 &directional, const glm::vec3 &angular)
- void **clear** ()
- const glm::vec3 & **directional** () const
- void **setDirectional** (const glm::vec3 &directional)
- const glm::vec3 & **angular** () const
- void **setAngular** (const glm::vec3 &angular)
- AbstractMove & **operator+=** (const AbstractMove &other)
- AbstractMove **operator*** (const AbstractMove &other) const
- AbstractMove **operator*** (float multiplier) const
- AbstractMove **operator/** (float dividor) const

Protected Attributes

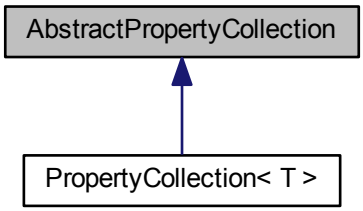
- glm::vec3 **m_directional**
- glm::vec3 **m_angular**

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

- src/geometry/abstractmove.h
- src/geometry/abstractmove.cpp

5.2 AbstractPropertyCollection Class Reference

Inheritance diagram for AbstractPropertyCollection:



Public Member Functions

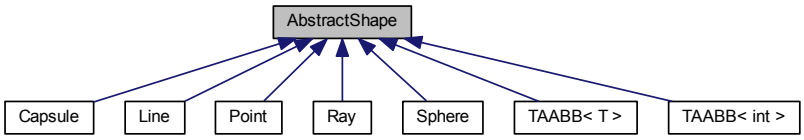
- virtual bool **update** (const std::string &key, const std::string &svalue)=0

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

- src/property/propertycollection.h

5.3 AbstractShape Class Reference

Inheritance diagram for AbstractShape:



Public Member Functions

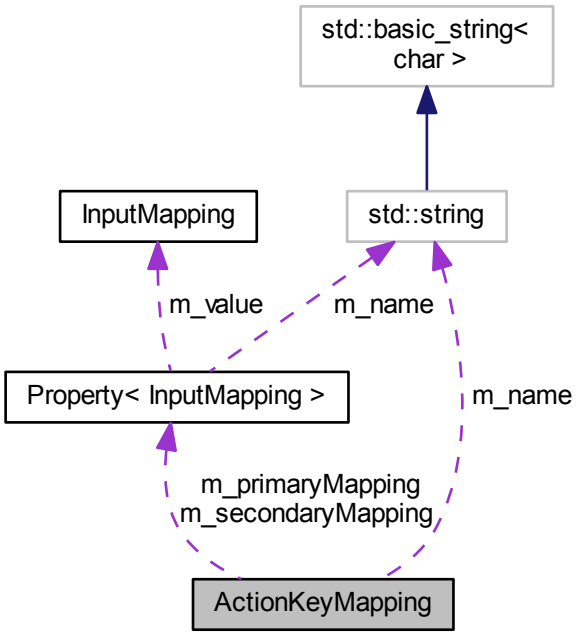
- virtual bool **intersects** (const Sphere &sphere) const =0
- virtual bool **nearTo** (const TAABB< int > &aabb) const =0
- virtual bool **containedBy** (const TAABB< int > &aabb) const =0

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

- src/geometry/abstractshape.h

5.4 ActionKeyMapping Class Reference

Collaboration diagram for ActionKeyMapping:



Public Member Functions

- **ActionKeyMapping** (std::string primary, std::string secondary, std::string name)
- **ActionKeyMapping** (std::string primary, std::string secondary, std::string name, bool toggleAction)
- InputMapping **mapping** (InputClass inputClass)
- void **setMapping** (InputMapping mapping, InputClass inputClass)
- std::string **name** ()
- bool **toggleAction** ()
- bool **toggleStatus** ()
- void **setToggleStatus** (bool status)

Protected Attributes

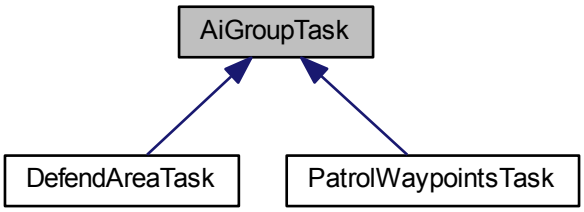
- Property< InputMapping > **m_primaryMapping**
- Property< InputMapping > **m_secondaryMapping**
- bool **m_toggleAction**
- bool **m_toggleStatus**
- std::string **m_name**

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

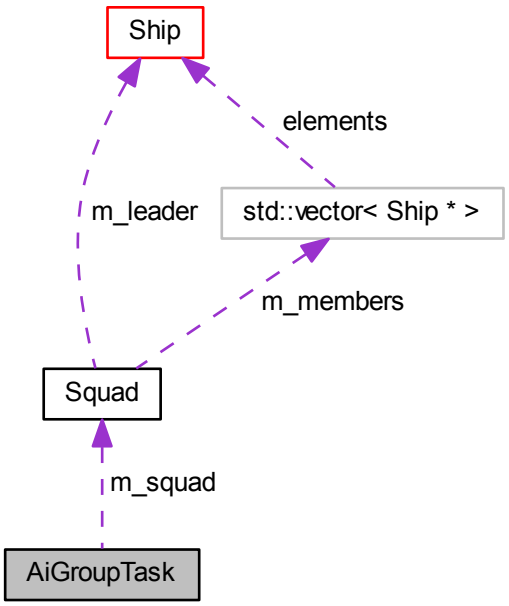
- src/ui/actionkeymapping.h
- src/ui/actionkeymapping.cpp

5.5 AiGroupTask Class Reference

Inheritance diagram for AiGroupTask:



Collaboration diagram for AiGroupTask:



Public Member Functions

- **AiGroupTask** (Squad &squad)
- virtual void **update** (float deltaSec)
- virtual bool **isInProgress** ()

Protected Member Functions

- virtual void **onMemberJoin** (Ship ∗member)
- virtual void **onMemberLeave** (Ship ∗member)
- virtual void **onNewLeader** (Ship ∗leader)
- void **setLeaderTask** (std::shared_ptr< AiTask > task)
- void **setMembersToFollowLeader** ()

Protected Attributes

- Squad & **m_squad**

Friends

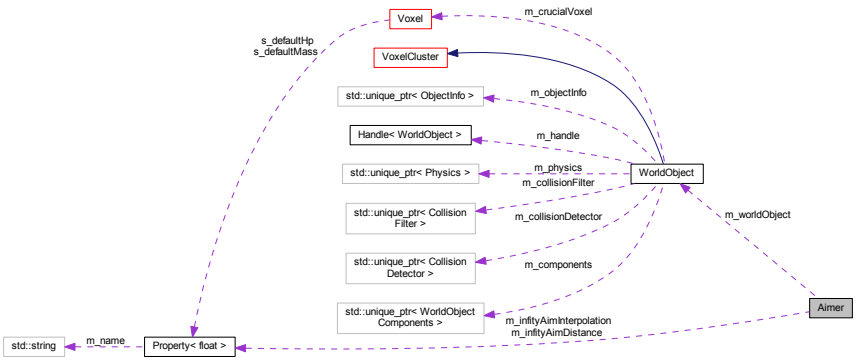
- class **Squad**

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

- src/ai/aigrouptask.h
- src/ai/aigrouptask.cpp

5.6 Aimer Class Reference

Collaboration diagram for Aimer:



Public Member Functions

- **Aimer** (WorldObject ∗worldObject)
- void **update** (float deltaSec)
- glm::vec3 **aim** (const Ray &ray)
- void **setWorldObject** (WorldObject ∗worldObject)

Protected Member Functions

- glm::vec3 **nearestTarget** (const std::unordered_set< Voxel ∗ > &voxels, const glm::vec3 &origin) const
- float **distanceTo** (Voxel ∗voxel, const glm::vec3 &origin) const
- glm::vec3 **infinity** (const Ray &ray) const

Protected Attributes

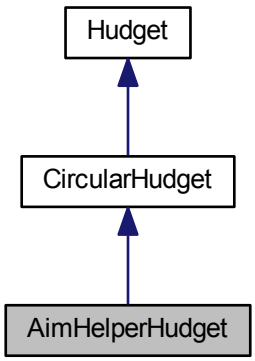
- WorldObject * **m_worldObject**
- Property< float > **m_infityAimDistance**
- Property< float > **m_infityAimInterpolation**
- float **m_lastDistance**

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

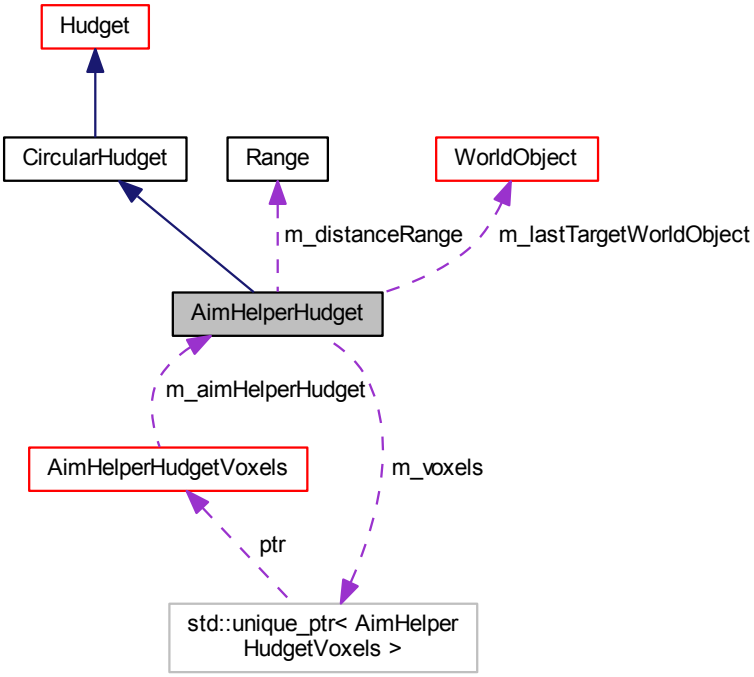
- src/utils/aimer.h
- src/utils/aimer.cpp

5.7 AimHelperHudget Class Reference

Inheritance diagram for AimHelperHudget:



Collaboration diagram for AimHelperHudget:



Public Member Functions

- **AimHelperHudget** (HUD *hud)
- const glm::vec3 & **targetPoint** () const
- virtual void **update** (float deltaSec) override
- virtual void **draw** ()
- virtual bool **isAt** (const Ray &ray) const override

Protected Member Functions

- void **calculateTargetPoint** (WorldObject *targetObject)
- void **calculatedDirection** ()

Protected Attributes

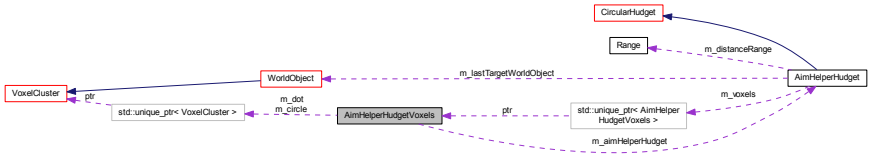
- std::unique_ptr < AimHelperHudgetVoxels > **m_voxels**
- glm::vec3 **m_targetPoint**
- glm::vec3 **m_smoothTargetPoint**
- WorldObject * **m_lastTargetWorldObject**
- bool **m_lastVisible**
- Range **m_distanceRange**

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

- src/ui/hud/aimhelperhudget.h
- src/ui/hud/aimhelperhudget.cpp

5.8 AimHelperHudgetVoxels Class Reference

Collaboration diagram for AimHelperHudgetVoxels:



Public Member Functions

- **AimHelperHudgetVoxels** (AimHelperHudget ∗aimHelperHudget)
- void **draw** ()

Protected Attributes

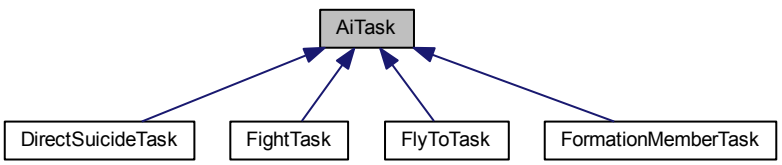
- AimHelperHudget ∗ **m_aimHelperHudget**
- std::unique_ptr< VoxelCluster > **m_dot**
- std::unique_ptr< VoxelCluster > **m_circle**

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

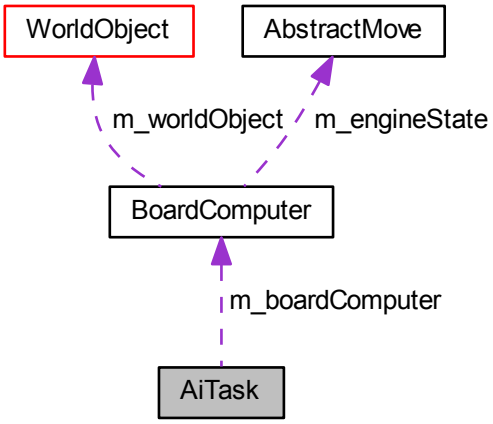
- src/ui/hud/aimhelperhudgetvoxels.h
- src/ui/hud/aimhelperhudgetvoxels.cpp

5.9 AiTask Class Reference

Inheritance diagram for AiTask:



Collaboration diagram for AiTask:



Public Member Functions

- **AiTask** (BoardComputer ∗boardComputer)
- BoardComputer ∗ **boardComputer** ()
- virtual void **update** (float deltaSec)
- virtual bool **isInProgress** ()

Protected Attributes

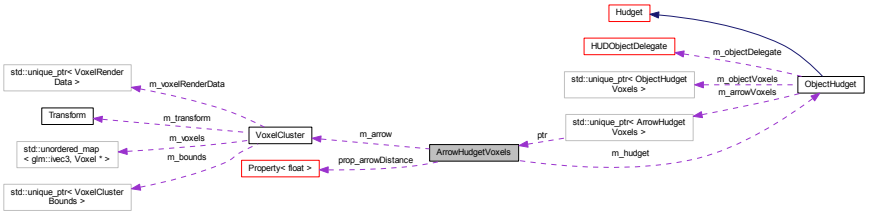
- BoardComputer ∗ **m_boardComputer**

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

- src/ai/aitask.h
- src/ai/aitask.cpp

5.10 ArrowHudgetVoxels Class Reference

Collaboration diagram for ArrowHudgetVoxels:



Public Member Functions

- **ArrowHudgetVoxels** (ObjectHudget *hudget)
- ObjectHudget * **hudget** ()
- void **draw** ()
- void **setTargeted** (bool targeted)
- void **updateDirection** (glm::vec3 direction)
- bool **findPointOnEdge** ()
- virtual bool **isAt** (const Ray &ray) const

Protected Member Functions

- bool **findPoint** ()
- float **vectorAngleToPlane** (glm::vec3 vector, glm::vec3 planeNormal)
- float **vectorAngleToVector** (glm::vec3 vector, glm::vec3 vector2)

Protected Attributes

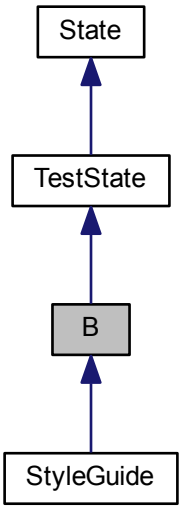
- ObjectHudget * **m_hudget**
- VoxelCluster **m_arrow**
- Property< float > **prop_arrowDistance**
- glm::vec3 **m_targetPoint**

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

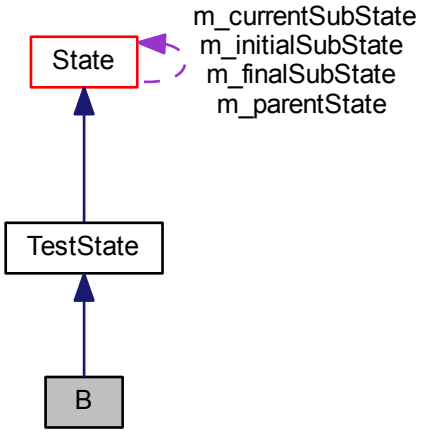
- src/ui/hud/arrowhudgetvoxels.h
- src/ui/hud/arrowhudgetvoxels.cpp

5.11 B Class Reference

Inheritance diagram for B:



Collaboration diagram for B:



Public Member Functions

- **B** (State ∗parent)

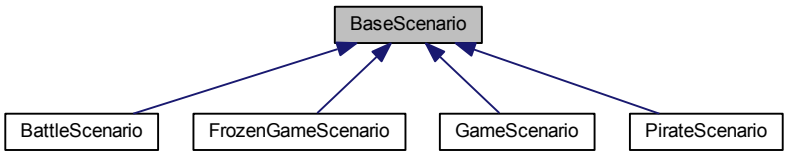
Additional Inherited Members

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

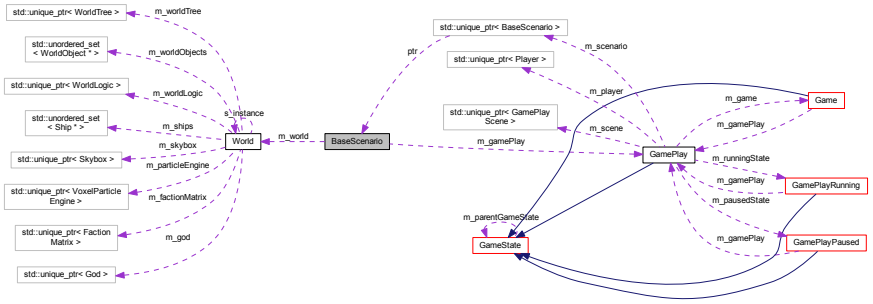
- test/statemachine/teststatemachine.cpp

5.12 BaseScenario Class Reference

Inheritance diagram for BaseScenario:



Collaboration diagram for BaseScenario:



Public Member Functions

- **BaseScenario** (GamePlay ∗gamePlay)
- void **load** ()
- void **clear** ()
- void **reset** ()

Protected Member Functions

- virtual void **createWorld** ()
- virtual void **populateWorld** ()

Protected Attributes

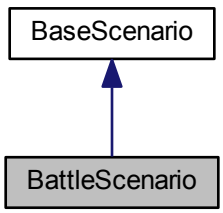
- GamePlay ∗ **m_gamePlay**
- World ∗ **m_world**

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

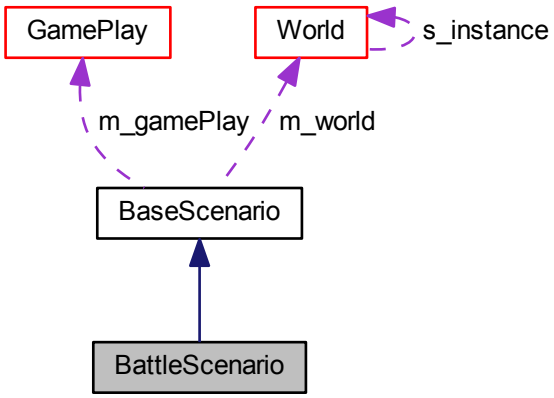
- src/scenarios/basescenario.h
- src/scenarios/basescenario.cpp

5.13 BattleScenario Class Reference

Inheritance diagram for BattleScenario:



Collaboration diagram for BattleScenario:



Public Member Functions

- **BattleScenario** (GamePlay *gamePlay)

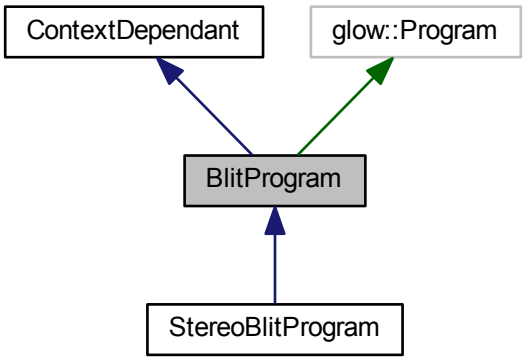
Additional Inherited Members

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

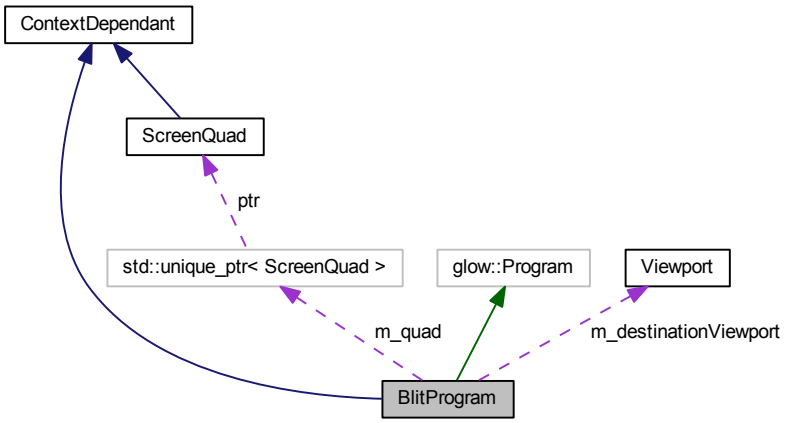
- src/scenarios/battlescenario.h
- src/scenarios/battlescenario.cpp

5.14 BlitProgram Class Reference

Inheritance diagram for BlitProgram:



Collaboration diagram for BlitProgram:



Public Member Functions

- void **setSource** (glow::Texture ∗source)
- void **setDestination** (glow::FrameBufferObject ∗targetFBO, const Viewport &m_targetViewpoer)
- virtual void **blit** ()

Public Attributes

- const GLint **TEXTURE_LOCATION** = 0

Protected Member Functions

- virtual void **initialize** ()
- virtual void **initializeShaders** ()=0
- template<typename T >
  void **setUniform** (const std::string &name, const T &value)
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

- glow::Texture * **m_source**
- glow::FrameBufferObject * **m_destinationFBO**
- std::unique_ptr< ScreenQuad > **m_quad**
- Viewport **m_destinationViewport**
- bool **m_initialized**

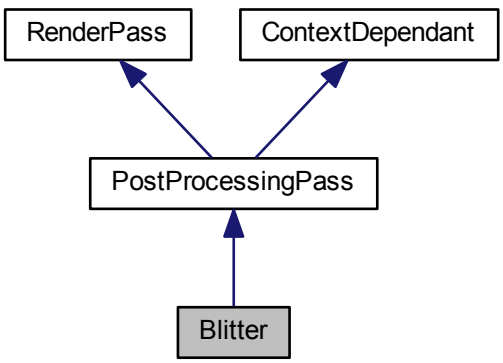
The documentation for this class was generated from the following files:

- src/programs/blitprogram.h
- src/programs/blitprogram.cpp
- src/programs/blitprogram.inl

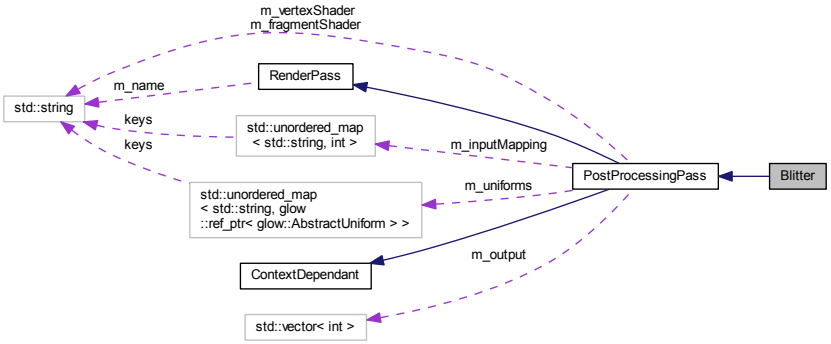
5.15 Blitter Class Reference

`#include <blitter.h>`

Inheritance diagram for Blitter:



Collaboration diagram for Blitter:



Public Member Functions

- virtual void **apply** (FrameBuffer &frameBuffer, glow::FrameBufferObject ∗target)

Additional Inherited Members

5.15.1 Detailed Description

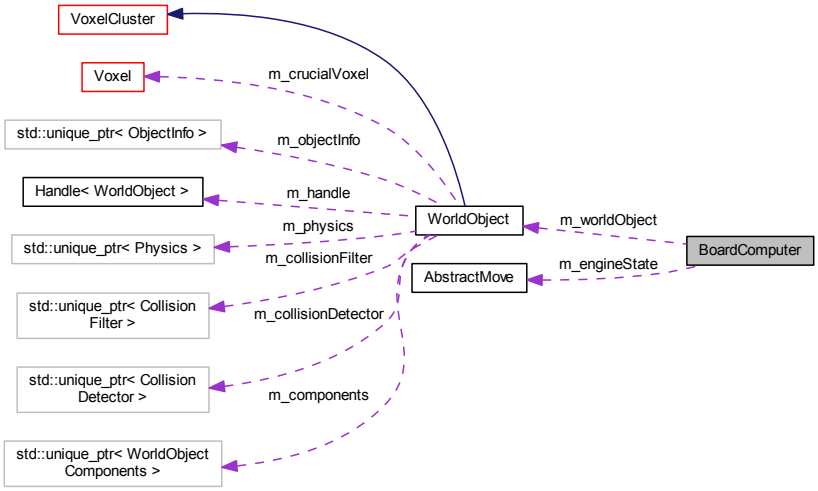
the mono/stereo blitter does some additional stuff that is not usefull for just copying one framebuffer to another. Please tell me if there is a better way.

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

- src/display/rendering/blitter.h
- src/display/rendering/blitter.cpp

5.16 BoardComputer Class Reference

Collaboration diagram for BoardComputer:



Public Member Functions

- **BoardComputer** (WorldObject *worldObject)
- WorldObject * **worldObject** ()
- const EngineState & **engineState** () const
- void **moveTo** (const glm::vec3 &position, bool decelerate=true)
- void **rotateTo** (const glm::vec3 &position, const glm::vec3 &up=glm::vec3(0, 0, 0))
- void **shootBullet** (const std::vector< Handle< WorldObject >> &targets)
- void **shootRockets** (Handle< WorldObject > &target)
- void **update** (float deltaSec)

Protected Member Functions

- glm::vec3 **rotateUpTo** (const glm::vec3 &up)
- glm::vec3 **rotateUpAuto** (const glm::quat &rotation)

Protected Attributes

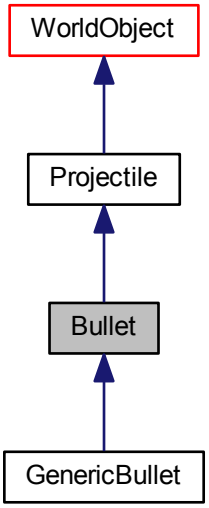
- WorldObject * **m_worldObject**
- EngineState **m_engineState**
- bool **m_overwriteEngineState**

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

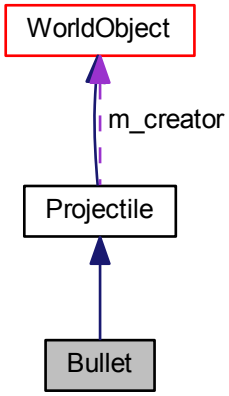
- src/ai/boardcomputer.h
- src/ai/boardcomputer.cpp

5.17 Bullet Class Reference

Inheritance diagram for Bullet:



Collaboration diagram for Bullet:



Public Member Functions

- virtual WorldObjectType **objectType** () const override
- virtual void **update** (float deltaSec) override

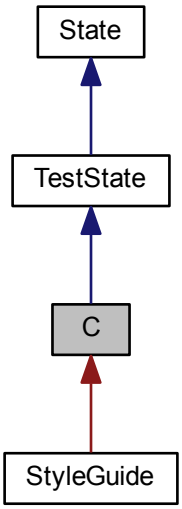
Additional Inherited Members

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

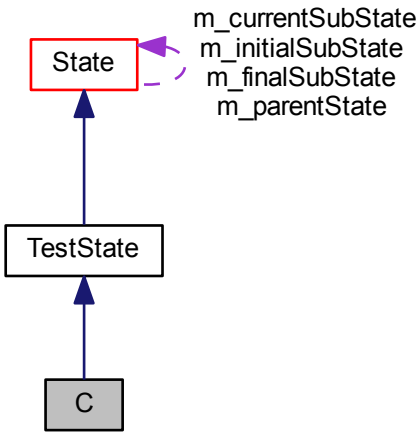
- src/equipment/weapons/bullet.h
- src/equipment/weapons/bullet.cpp

5.18 C Class Reference

Inheritance diagram for C:



Collaboration diagram for C:



Public Member Functions

- **C** (State ∗parent)

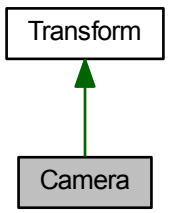
Additional Inherited Members

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

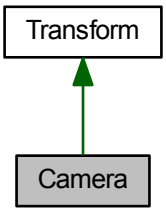
- test/statemachine/teststatemachine.cpp

5.19 Camera Class Reference

Inheritance diagram for Camera:



Collaboration diagram for Camera:



Public Member Functions

- **Camera** (int viewportWidth, int viewportHeight)
- void **move** (glm::vec3 dist)
- void **setPosition** (glm::vec3 pos)
- void **rotateX** (float rot)
- void **rotateY** (float rot)
- void **rotateZ** (float rot)
- void **setOrientation** (glm::quat quat)
- const glm::mat4 & **view** () const
- const glm::mat4 & **viewInverted** () const
- const glm::quat & **orientation** () const
- const glm::vec3 & **position** () const
- float **zNear** () const
- void **setZNear** (float zNear)
- float **zFar** () const
- void **setZFar** (float zFar)
- float **fovy** () const
- void **setFovy** (float fovy)
- const glm::ivec2 **viewport** () const
- void **setViewport** (const glm::ivec2 &viewport)
- const glm::vec3 & **projectionOffset** () const
- void **setProjectionOffset** (const glm::vec3 &projectionOffset)
- float **aspectRatio** () const
- const glm::mat4 & **projection** () const
- const glm::mat4 & **viewProjection** () const

Protected Member Functions

- void **viewDirty** ()
- void **projectionDirty** ()

Protected Attributes

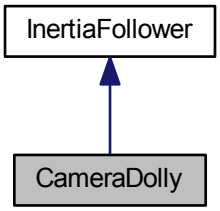
- float **m_fovy**
- float **m_aspect**
- float **m_zNear**
- float **m_zFar**
- glm::ivec2 **m_viewport**
- glm::vec3 **m_projectionOffset**
- glm::mat4 **m_view**
- glm::mat4 **m_projection**
- glm::mat4 **m_viewProjection**

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

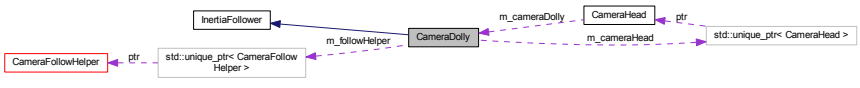
- src/camera/camera.h
- src/camera/camera.cpp

5.20 CameraDolly Class Reference

Inheritance diagram for CameraDolly:



Collaboration diagram for CameraDolly:



Public Member Functions

- CameraHead & **cameraHead** ()
- const CameraHead & **cameraHead** () const
- void **followWorldObject** (WorldObject *m_followWorldObject)
- void **update** (float deltaSec)

Protected Attributes

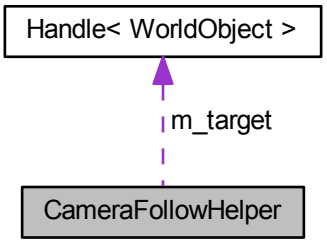
- std::unique_ptr< CameraHead > **m_cameraHead**
- std::unique_ptr < CameraFollowHelper > **m_followHelper**

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

- src/camera/cameradolly.h
- src/camera/cameradolly.cpp

5.21 CameraFollowHelper Class Reference

Collaboration diagram for CameraFollowHelper:



Public Member Functions

- WorldObject * **target** ()
- void **setTarget** (WorldObject *target)
- glm::vec3 **followPosition** ()

Protected Attributes

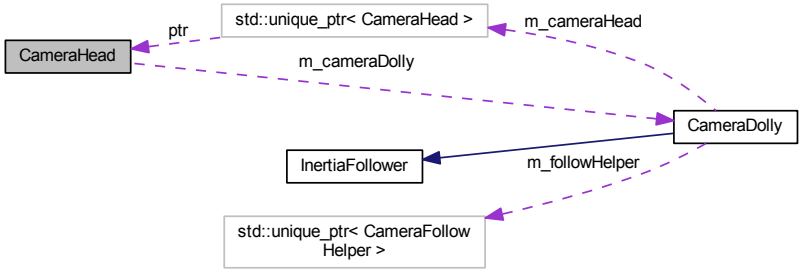
- Handle< WorldObject > **m_target**

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

- src/camera/camerafollowhelper.h
- src/camera/camerafollowhelper.cpp

5.22 CameraHead Class Reference

Collaboration diagram for CameraHead:



Public Member Functions

- **CameraHead** (CameraDolly ∗cameraDolly)
- CameraDolly ∗ **cameraDolly** ()
- const glm::quat & **relativeOrientation** () const
- void **setRelativeOrientation** (const glm::quat &relativeOrientation)
- glm::vec3 **position** () const
- glm::quat **orientation** () const

Protected Attributes

- CameraDolly ∗ **m_cameraDolly**
- glm::quat **m_relativeOrientation**

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

- src/camera/camerahead.h
- src/camera/camerahead.cpp

5.23 Starfield::CameraLocation Struct Reference

Public Attributes

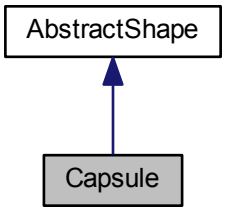
- float **time**
- glm::vec3 **position**
- glm::quat **orientation**

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

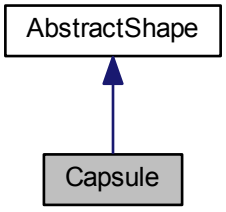
- src/display/rendering/starfield.h

5.24 Capsule Class Reference

Inheritance diagram for Capsule:



Collaboration diagram for Capsule:



Public Member Functions

- **Capsule** (const glm::vec3 &origin, const glm::vec3 &direction, const float radius)
- const glm::vec3 & **origin** () const
- void **setOrigin** (const glm::vec3 &origin)
- const glm::vec3 & **direction** () const
- void **setDirection** (const glm::vec3 &direction)
- const float **radius** () const
- void **setRadius** (const float radius)
- virtual bool **intersects** (const Sphere &sphere) const override
- virtual bool **nearTo** (const TAABB< int > &aabb) const override
- virtual bool **containedBy** (const TAABB< int > &aabb) const override

Protected Attributes

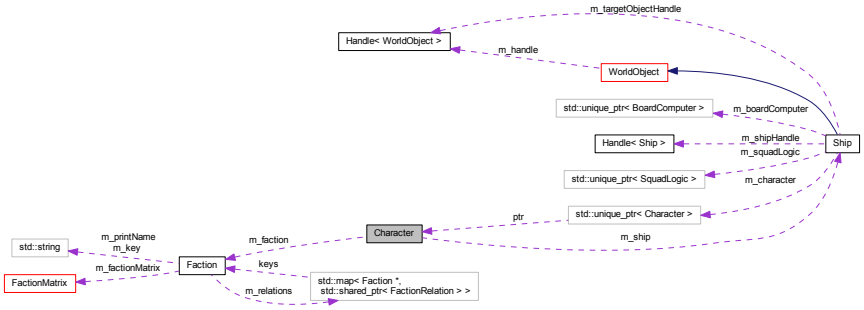
- glm::vec3 **m_origin**
- glm::vec3 **m_direction**
- float **m_radius**

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

- src/geometry/capsule.h
- src/geometry/capsule.cpp

5.25 Character Class Reference

Collaboration diagram for Character:



Public Member Functions

- **Character** (Ship &ship, Faction *faction)
- Faction * **faction** ()
- void **setFaction** (Faction *faction)
- void **setTask** (std::shared_ptr< AiTask > task)
- std::shared_ptr< AiTask > **task** ()
- virtual void **update** (float deltaSec)

Protected Attributes

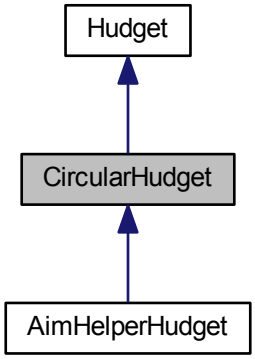
- Ship & **m_ship**
- Faction * **m_faction**
- std::shared_ptr< AiTask > **m_task**

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

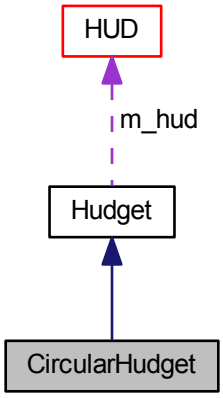
- src/ai/character.h
- src/ai/character.cpp

5.26 CircularHudget Class Reference

Inheritance diagram for CircularHudget:



Collaboration diagram for CircularHudget:



Public Member Functions

- **CircularHudget** (HUD *hud, float radius)
- float **radius** () const
- virtual bool **isAt** (const Ray &ray) const override

Protected Attributes

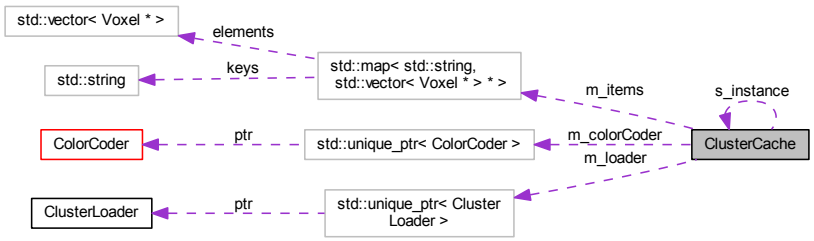
- float **m_radius**

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

- src/ui/hud/circularhudget.h
- src/ui/hud/circularhudget.cpp

5.27 ClusterCache Class Reference

Collaboration diagram for ClusterCache:



Public Member Functions

- void **fillObject** (WorldObject *worldObject, const std::string &filename)
- void **fillCluster** (VoxelCluster *cluster, const std::string &filename)

Static Public Member Functions

- static ClusterCache * **instance** ()

Protected Member Functions

- std::vector< Voxel * > * **getOrCreate** (const std::string &filename)

Protected Attributes

- std::map< std::string, std::vector< Voxel * > * > **m_items**
- std::unique_ptr< ClusterLoader > **m_loader**
- std::unique_ptr< ColorCoder > **m_colorCoder**

Static Protected Attributes

- static ClusterCache * **s_instance** = nullptr

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

- src/resource/clustercache.h
- src/resource/clustercache.cpp

5.28 ClusterLoader Class Reference

Public Member Functions

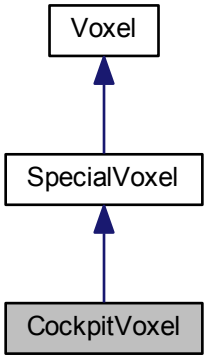
- void **load** (const std::string &filename, std::vector< Voxel * > *list)

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

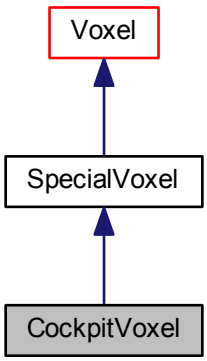
- src/resource/clusterloader.h
- src/resource/clusterloader.cpp

5.29 CockpitVoxel Class Reference

Inheritance diagram for CockpitVoxel:



Collaboration diagram for CockpitVoxel:



Public Member Functions

- **CockpitVoxel** (const glm::ivec3 &gridCell, int index)
- virtual void **addToObject** (WorldObject *object) override
- virtual void **onRemoval** () override
- virtual void **onDestruction** () override

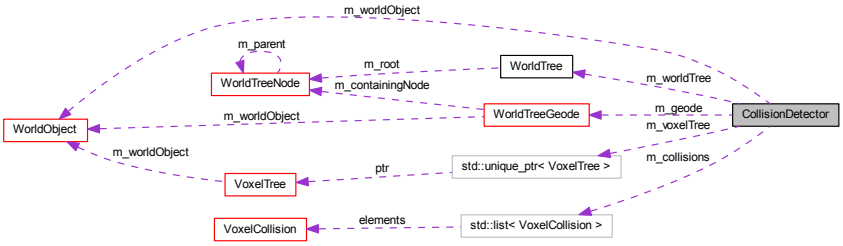
Additional Inherited Members

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

- src/voxel/specialvoxels/cockpitvoxel.h
- src/voxel/specialvoxels/cockpitvoxel.cpp

5.30 CollisionDetector Class Reference

Collaboration diagram for CollisionDetector:



Public Member Functions

- **CollisionDetector** (WorldObject &worldObject)
- void **addVoxel** (Voxel *voxel)
- void **removeVoxel** (Voxel *voxel)
- std::list< VoxelCollision > & **checkCollisions** ()
- std::list< VoxelCollision > & **lastCollisions** ()
- void **reset** ()
- WorldTreeGeode * **geode** ()
- void **setGeode** (WorldTreeGeode *geode)
- void **setWorldTree** (WorldTree *worldTree)
- WorldTree * **worldTree** ()
- VoxelTree & **voxelTree** ()
- void **updateGeode** ()

Protected Member Functions

- void **checkCollisions** (VoxelTreeNode *nodeA, VoxelTreeNode *nodeB)
- const Sphere & **getOrCreateSphere** (VoxelTreeNode *node)

Protected Attributes

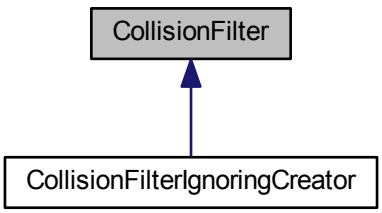
- std::unique_ptr< VoxelTree > **m_voxelTree**
- WorldObject & **m_worldObject**
- WorldTreeGeode * **m_geode**
- WorldTree * **m_worldTree**
- std::list< VoxelCollision > **m_collisions**

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

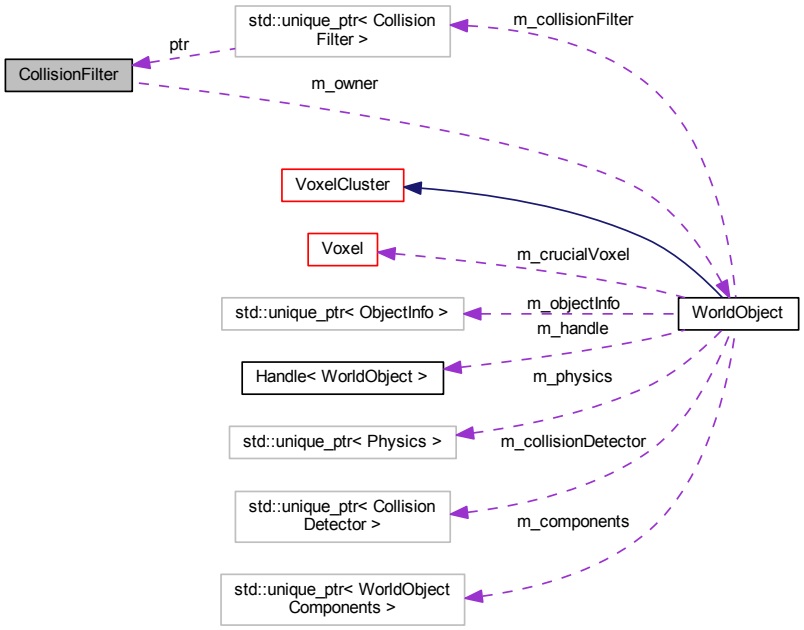
- src/collision/collisiondetector.h
- src/collision/collisiondetector.cpp

5.31 CollisionFilter Class Reference

Inheritance diagram for CollisionFilter:



Collaboration diagram for CollisionFilter:



Public Member Functions

- **CollisionFilter** (WorldObject *owner, uint32_t collisionMask=0xFFFFFFFF)
- uint32_t **collisionMask** () const
- void **setCollideableWith** (WorldObjectType objectType, bool collides)
- bool **isCollideableWith** (const CollisionFilter *other) const
- virtual WorldObject * **owner** () const
- virtual WorldObject * **creator** () const

Protected Member Functions

- bool **areMasksCollidable** (const CollisionFilter *other) const
- virtual bool **specialIsCollideableWith** (const CollisionFilter *other) const

Protected Attributes

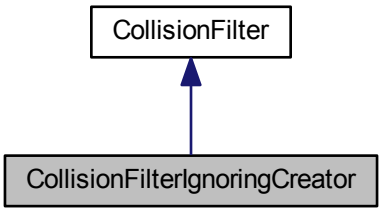
- uint32_t **m_collisionMask**
- WorldObject * **m_owner**

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

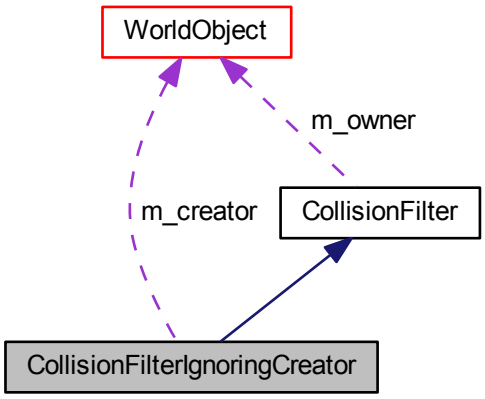
- src/collision/collisionfilter.h
- src/collision/collisionfilter.cpp

5.32 CollisionFilterIgnoringCreator Class Reference

Inheritance diagram for CollisionFilterIgnoringCreator:



Collaboration diagram for CollisionFilterIgnoringCreator:



Public Member Functions

- **CollisionFilterIgnoringCreator** (WorldObject ∗owner, WorldObject ∗creator, uint32_t collisionMask=0xFFFFFFFF)
- virtual WorldObject ∗ **creator** () const override

Protected Member Functions

- virtual bool **specialIsCollideableWith** (const CollisionFilter ∗other) const override

Protected Attributes

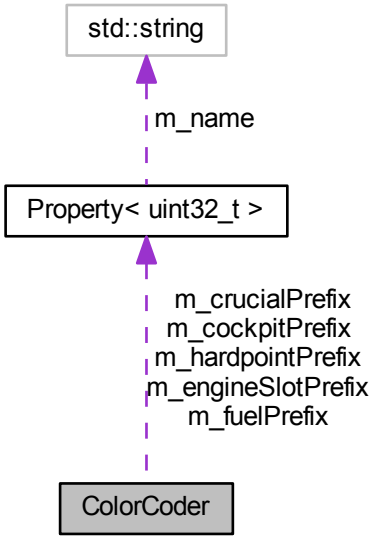
- WorldObject ∗ **m_creator**

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

- src/collision/collisionfilterignoringcreator.h
- src/collision/collisionfilterignoringcreator.cpp

5.33 ColorCoder Class Reference

Collaboration diagram for ColorCoder:



Public Member Functions

- Voxel * **newCodedVoxel** (const Voxel &voxel)

Protected Attributes

- Property< uint32_t > **m_engineSlotPrefix**
- Property< uint32_t > **m_hardpointPrefix**
- Property< uint32_t > **m_cockpitPrefix**
- Property< uint32_t > **m_fuelPrefix**
- Property< uint32_t > **m_crucialPrefix**

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

- src/resource/colorcoder.h
- src/resource/colorcoder.cpp

5.34 CommandLineParser Class Reference

Public Member Functions

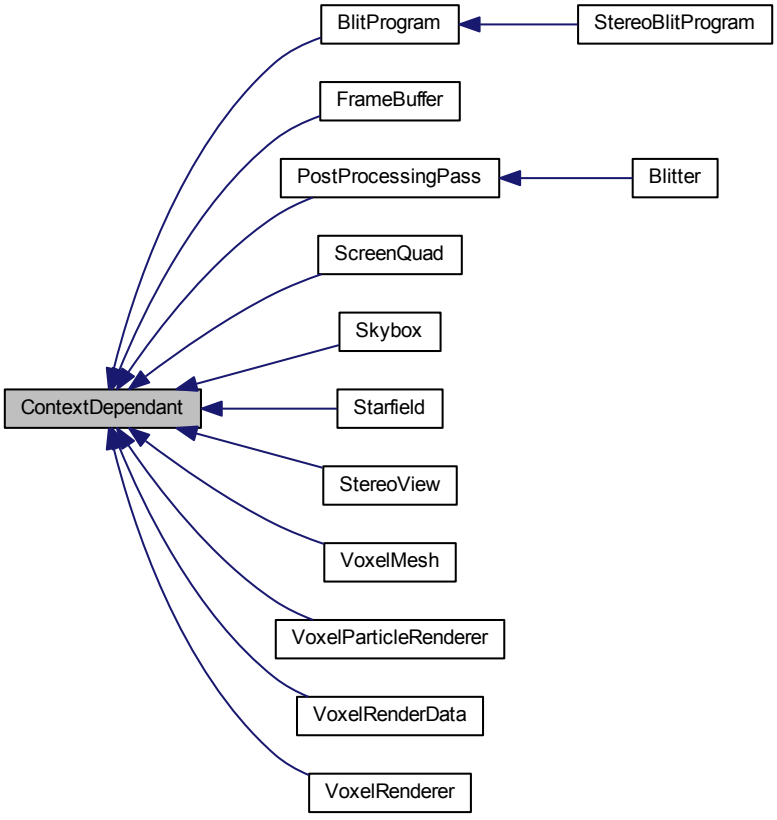
- void **parse** (int argc, char ∗argv[])
- bool **hmd** () const
- bool **stereoView** () const
- bool **fullScreen** () const

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

- src/etc/cli/commandlineparser.h
- src/etc/cli/commandlineparser.cpp

5.35 ContextDependant Class Reference

Inheritance diagram for ContextDependant:



Protected Member Functions

- virtual void **beforeContextDestroy** ()=0
- virtual void **afterContextRebuild** ()=0

Friends

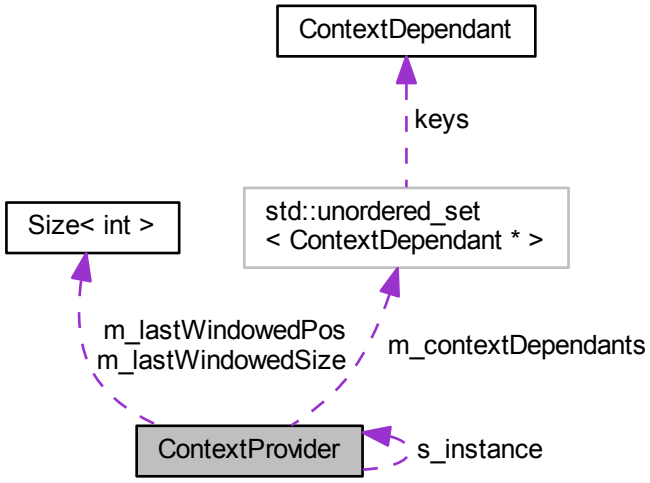
- class **ContextProvider**

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

- src/etc/contextdependant.h
- src/etc/contextdependant.cpp

5.36 ContextProvider Class Reference

Collaboration diagram for ContextProvider:



Public Member Functions

- void **setRequiredGLVersion** (int majorVersionRequire, int minorVersionRequire)
- void **initWindowed** ()
- void **initWindowed** (const Size< int > &resolution)
- void **initWindowed** (const Size< int > &resolution, const Size< int > &position)
- void **initFullScreen** (int monitorIndex=0)
- void **toggleFullScreen** ()
- void **shutdown** ()
- bool **fullScreen** () const
- Size< int > **resolution** () const
- Viewport **viewport** () const
- float **aspectRatio** () const
- std::vector< GLFWmonitor * > **monitors** () const
- int **currentMonitor** () const
- void **registerContextDependant** (ContextDependant *dependant)
- void **unregisterContextDependant** (ContextDependant *dependant)

Static Public Member Functions

- static ContextProvider * **instance** ()

Protected Member Functions

- Size< int > **currentResolution** (GLFWmonitor *monitor)
- void **setWindowHints** ()

Protected Attributes

- std::unordered_set < ContextDependant * > **m_contextDependants**
- bool **m_fullScreen**
- int **m_majorVersionRequire**
- int **m_minorVersionRequire**
- int **m_lastFullScreenMonitorIndex**
- Size< int > **m_lastWindowedPos**
- Size< int > **m_lastWindowedSize**

Static Protected Attributes

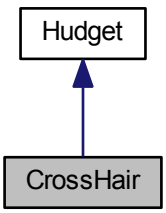
- static ContextProvider * **s_instance** = nullptr

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

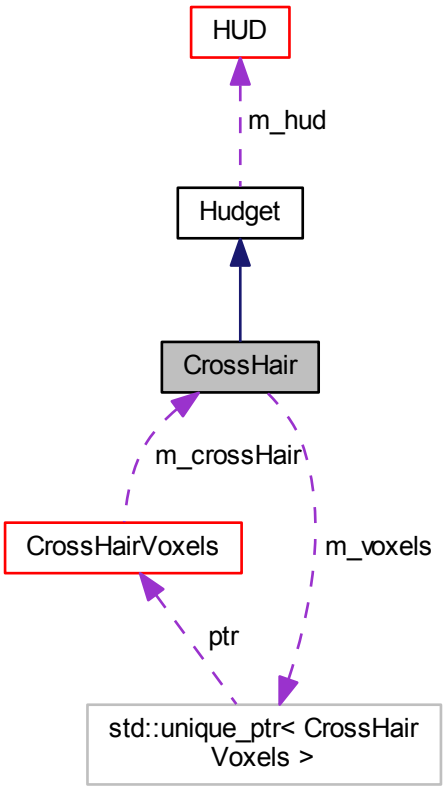
- src/etc/contextprovider.h
- src/etc/contextprovider.cpp

5.37 CrossHair Class Reference

Inheritance diagram for CrossHair:



Collaboration diagram for CrossHair:



Public Member Functions

- **CrossHair** (HUD *hud)
- bool **actionActive** () const
- void **setActionActive** (bool actionActive)
- virtual void **update** (float deltaSec) override
- virtual void **draw** () override

Protected Attributes

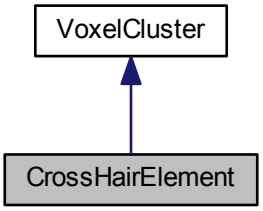
- bool **m_actionActive**
- std::unique_ptr< CrossHairVoxels > **m_voxels**

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

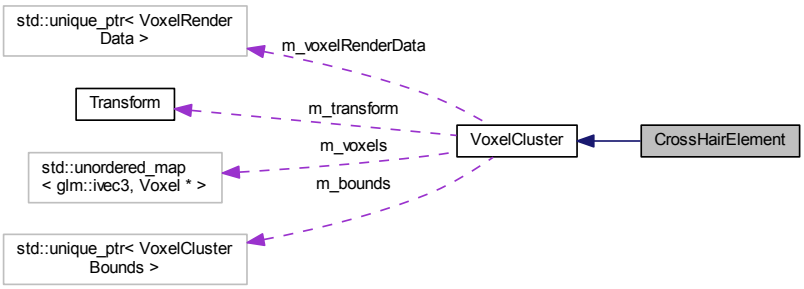
- src/ui/hud/crosshair.h
- src/ui/hud/crosshair.cpp

5.38 CrossHairElement Class Reference

Inheritance diagram for CrossHairElement:



Collaboration diagram for CrossHairElement:



Public Attributes

- glm::quat **relativeOrientation**
- float **zOrientation**

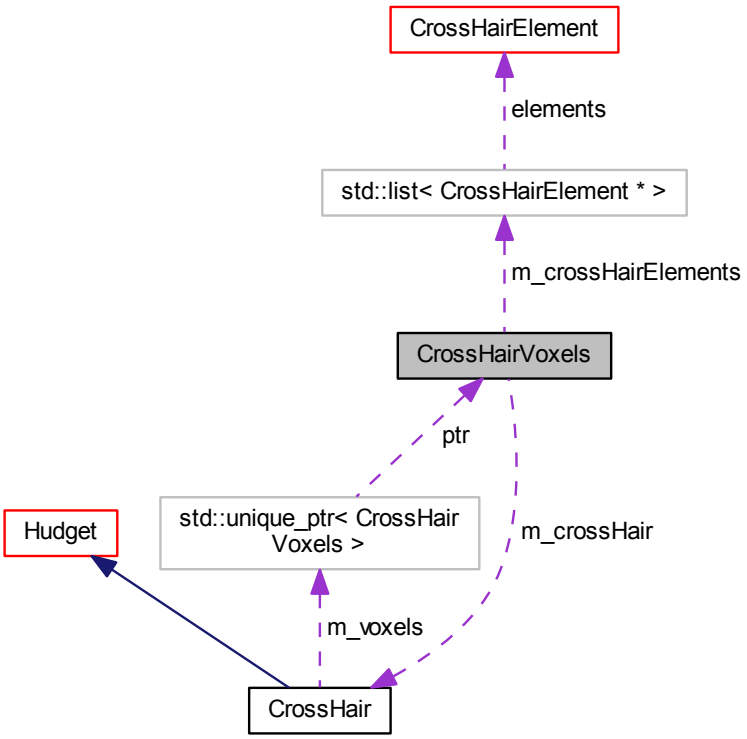
Additional Inherited Members

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

- src/ui/hud/crosshairvoxels.cpp

5.39 CrossHairVoxels Class Reference

Collaboration diagram for CrossHairVoxels:



Public Member Functions

- **CrossHairVoxels** (CrossHair *crossHair)
- void **update** (float deltaSec)
- void **draw** ()

Protected Attributes

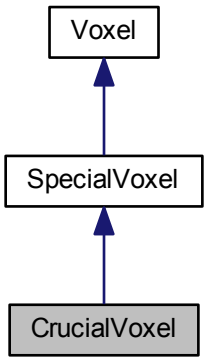
- CrossHair * **m_crossHair**
- std::list< CrossHairElement * > **m_crossHairElements**

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

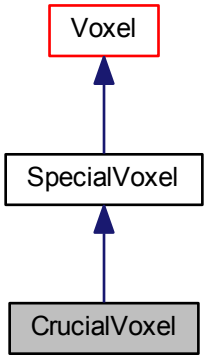
- src/ui/hud/crosshairvoxels.h
- src/ui/hud/crosshairvoxels.cpp

5.40 CrucialVoxel Class Reference

Inheritance diagram for CrucialVoxel:



Collaboration diagram for CrucialVoxel:



Public Member Functions

- **CrucialVoxel** (const glm::ivec3 &gridCell, int index)
- virtual void **addToObject** (WorldObject *worldObject)
- virtual void **onRemoval** ()
- virtual void **onDestruction** ()

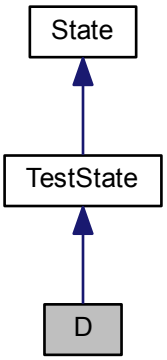
Additional Inherited Members

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

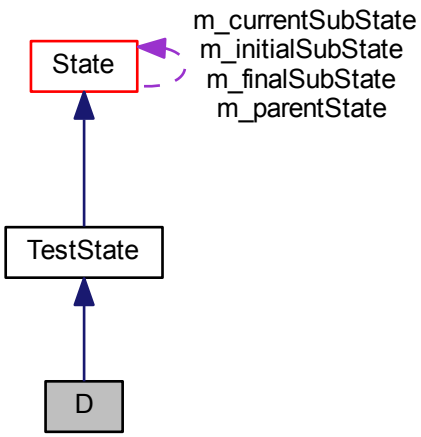
- src/voxel/specialvoxels/crucialvoxel.h
- src/voxel/specialvoxels/crucialvoxel.cpp

5.41 D Class Reference

Inheritance diagram for D:



Collaboration diagram for D:



Public Member Functions

- **D** (State ∗parent)

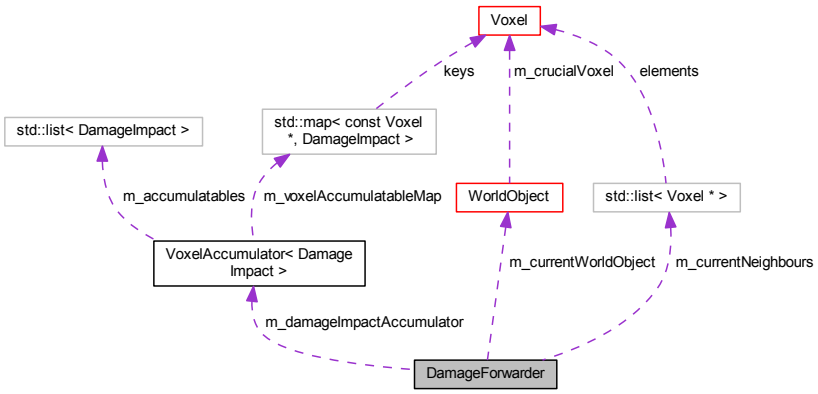
Additional Inherited Members

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

- test/statemachine/teststatemachine.cpp

5.42 DamageForwarder Class Reference

Collaboration diagram for DamageForwarder:



Public Member Functions

- void **forwardDamageImpacts** (std::list< DamageImpact > &dampedDeadlyDamageImpacts)
- void **dontForwardTo** (std::list< Voxel * > &deadVoxels)
- std::list< DamageImpact > **forwardedDamageImpacts** ()

Protected Member Functions

- float **forwardFactor** (float dotProduct, float fieldOfDamage, int neighbours)

Protected Attributes

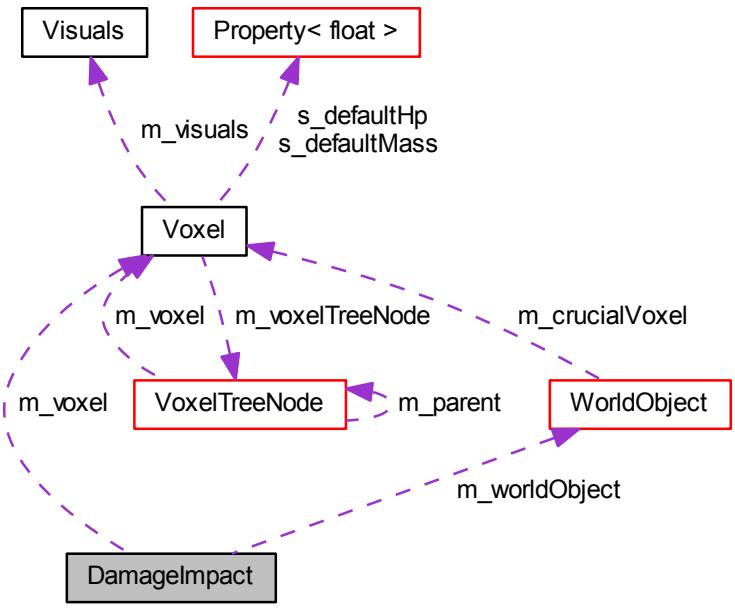
- WorldObject * **m_currentWorldObject**
- std::list< Voxel * > * **m_currentNeighbours**
- glm::ivec3 **m_currentGridCell**
- VoxelAccumulator< DamageImpact > **m_damageImpactAccumulator**

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

- src/world/handler/damageforwarder.h
- src/world/handler/damageforwarder.cpp

5.43 DamageImpact Class Reference

Collaboration diagram for DamageImpact:



Public Member Functions

- **DamageImpact** (WorldObject *worldObject, Voxel *voxel, const glm::vec3 &damageVec, float fieldOfDamage)
- WorldObject * **worldObject** ()
- const WorldObject * **worldObject** () const
- Voxel * **voxel** ()
- const Voxel * **voxel** () const
- const glm::vec3 & **damageVec** () const
- float **damage** () const
- float **fieldOfDamage** () const
- void **add** (const DamageImpact &damageImpact)

Protected Attributes

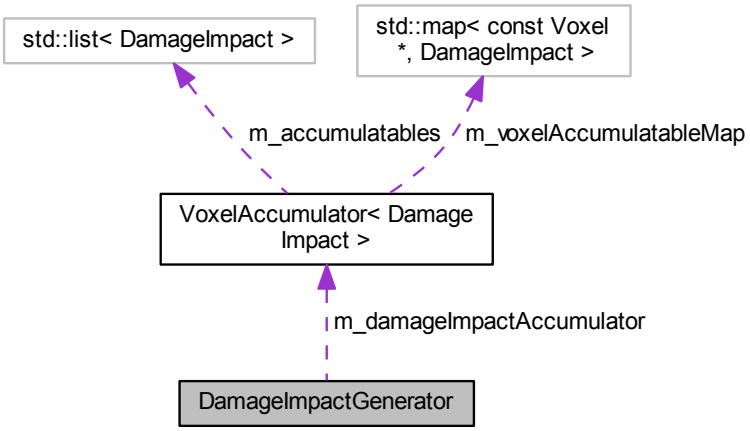
- WorldObject * **m_worldObject**
- Voxel * **m_voxel**
- glm::vec3 **m_damageVec**
- float **m_fieldOfDamage**

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

- src/world/helper/damageimpact.h
- src/world/helper/damageimpact.cpp

5.44 DamageImpactGenerator Class Reference

Collaboration diagram for DamageImpactGenerator:



Public Member Functions

- void **parse** (std::list< WorldObjectCollision > &worldObjectCollisions)
- std::list< DamageImpact > & **damageImpacts** ()

Protected Attributes

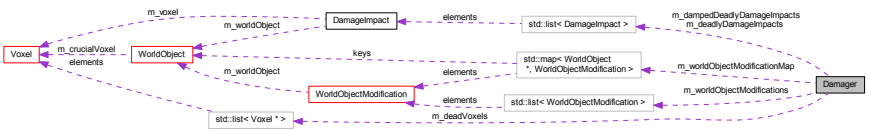
- VoxelAccumulator< DamageImpact > **m_damageImpactAccumulator**

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

- src/world/handler/damageimpactgenerator.h
- src/world/handler/damageimpactgenerator.cpp

5.45 Damager Class Reference

Collaboration diagram for Damager:



Public Member Functions

- void **applyDamages** (std::list< DamageImpact > &damageImpacts)

- void **reset** ()
- std::list< DamageImpact > & **dampedDeadlyDamageImpacts** ()
- std::list< DamageImpact > & **deadlyDamageImpacts** ()
- std::list< Voxel * > & **deadVoxels** ()
- std::list < WorldObjectModification > & **worldObjectModifications** ()

Protected Member Functions

- DamageImpact **dampDamageImpact** (DamageImpact &undamped, float factor)

Protected Attributes

- std::list< DamageImpact > **m_dampedDeadlyDamageImpacts**
- std::list< DamageImpact > **m_deadlyDamageImpacts**
- std::list< Voxel * > **m_deadVoxels**
- std::map< WorldObject *, WorldObjectModification > **m_worldObjectModificationMap**
- std::list < WorldObjectModification > **m_worldObjectModifications**

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

- src/world/handler/damager.h
- src/world/handler/damager.cpp

5.46 DdsTexture Class Reference

Static Public Member Functions

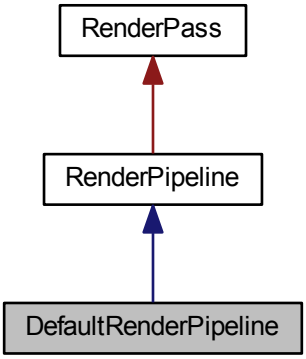
- static bool **loadImage2d** (glow::Texture *texture, std::string path)
- static bool **loadImageCube** (glow::Texture *texture, std::string pathXp, std::string pathXn, std::string pathYp, std::string pathYn, std::string pathZp, std::string pathZn)

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

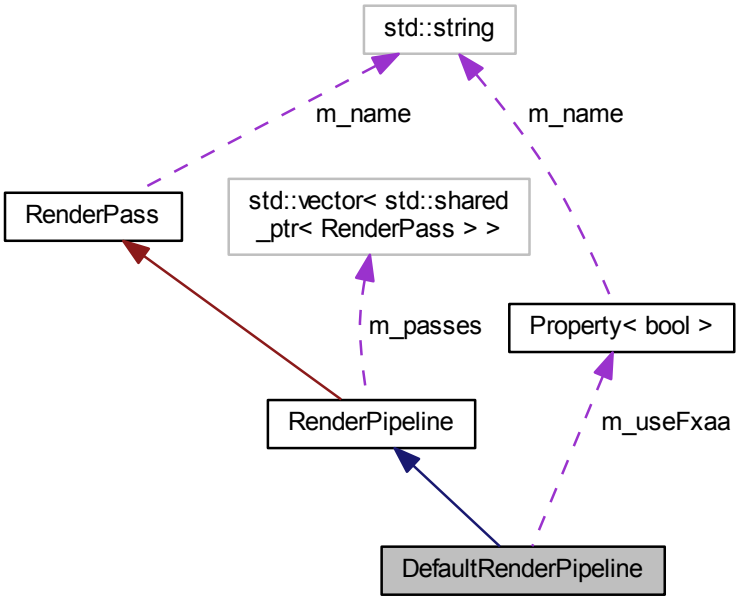
- src/resource/ddstexture.h
- src/resource/ddstexture.cpp

5.47 DefaultRenderPipeline Class Reference

Inheritance diagram for DefaultRenderPipeline:



Collaboration diagram for DefaultRenderPipeline:



Public Member Functions

- virtual void **apply** (FrameBuffer &frameBuffer, const RenderMetaData &metadata) override
- virtual void **setup** () override

- virtual int **bufferCount** () override
- void **addFXAA** ()
- void **addEmissivenessBlurVertical** ()
- void **addEmissivenessBlurHorizontal** ()
- void **addFinalization** ()

Protected Attributes

- std::shared_ptr< ScreenQuad > **m_quad**
- std::shared_ptr < PostProcessingPass > **m_fxaa**
- std::shared_ptr < PostProcessingPass > **m_finalization**
- Property< bool > **m_useFxaa**

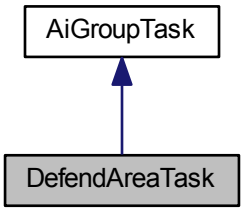
Additional Inherited Members

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

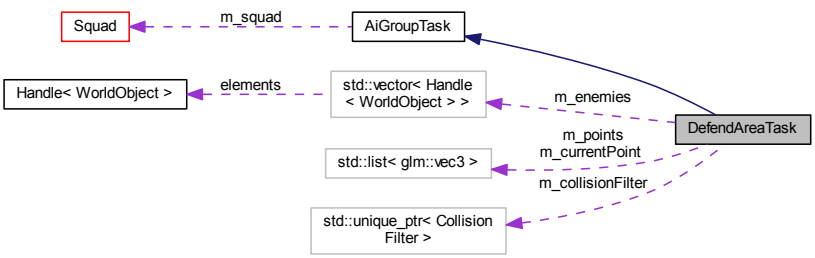
- src/display/rendering/defaultrenderpipeline.h
- src/display/rendering/defaultrenderpipeline.cpp

5.48 DefendAreaTask Class Reference

Inheritance diagram for DefendAreaTask:



Collaboration diagram for DefendAreaTask:



Public Member Functions

- **DefendAreaTask** (Squad &squad, std::list< glm::vec3 > points, float defendRange)
- virtual void **update** (float deltaSec) override

Protected Member Functions

- virtual void **onNewLeader** (Ship *leader) override
- virtual void **onMemberJoin** (Ship *member) override
- void **updatePatrol** ()
- void **updateFight** ()
- bool **isEnemyInRange** ()

Protected Attributes

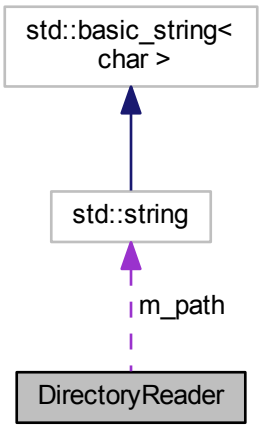
- std::unique_ptr< CollisionFilter > **m_collisionFilter**
- std::shared_ptr< FlyToTask > **m_leaderFlyTask**
- std::shared_ptr< FightTask > **m_fightTask**
- std::list< glm::vec3 > **m_points**
- std::list< glm::vec3 >::iterator **m_currentPoint**
- std::vector< Handle < WorldObject > > **m_enemies**
- float **m_defendRange**

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

- src/ai/grouptasks/defendareatask.h
- src/ai/grouptasks/defendareatask.cpp

5.49 DirectoryReader Class Reference

Collaboration diagram for DirectoryReader:



Public Member Functions

- **DirectoryReader** (const std::string &path)
- std::list< std::string > **read** () const

Protected Attributes

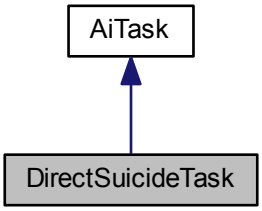
- std::string **m_path**

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

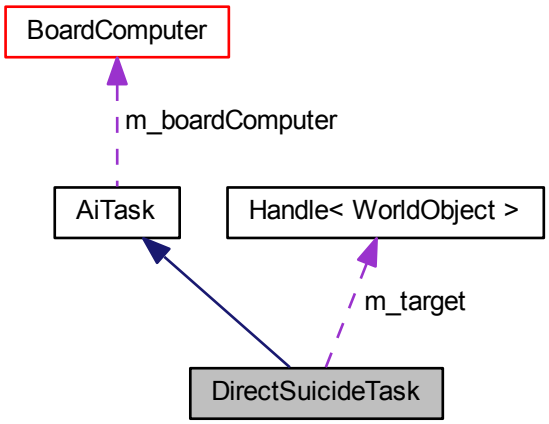
- src/utils/directoryreader.h
- src/utils/directoryreader.cpp

5.50 DirectSuicideTask Class Reference

Inheritance diagram for DirectSuicideTask:



Collaboration diagram for DirectSuicideTask:



Public Member Functions

- **DirectSuicideTask** (BoardComputer *boardComputer, WorldObject *target)
- void **setTarget** (WorldObject *target)
- virtual void **update** (float deltaSec)

Protected Attributes

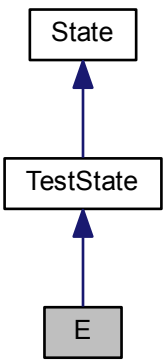
- Handle< WorldObject > **m_target**

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

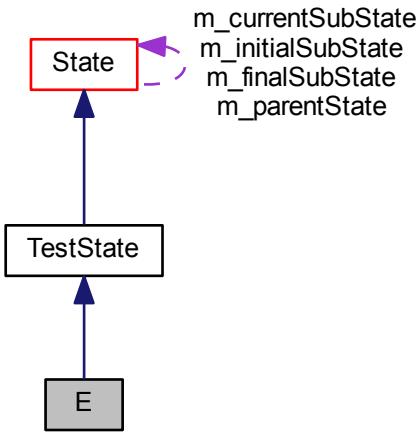
- src/ai/basictasks/directsuicidetask.h
- src/ai/basictasks/directsuicidetask.cpp

5.51 E Class Reference

Inheritance diagram for E:



Collaboration diagram for E:



Public Member Functions

- **E** (State ∗parent)

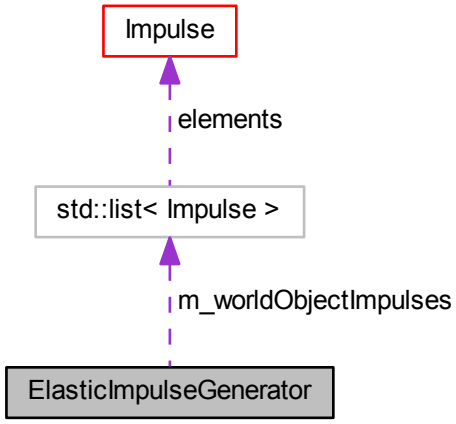
Additional Inherited Members

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

- test/statemachine/teststatemachine.cpp

5.52 ElasticImpulseGenerator Class Reference

Collaboration diagram for ElasticImpulseGenerator:



Public Member Functions

- void **parse** (std::list< WorldObjectCollision > &worldObjectCollisions)
- std::list< Impulse > & **worldObjectImpulses** ()

Protected Member Functions

- void **generateImpulse** (VoxelCollisionParticipant &from, VoxelCollisionParticipant &to)

Protected Attributes

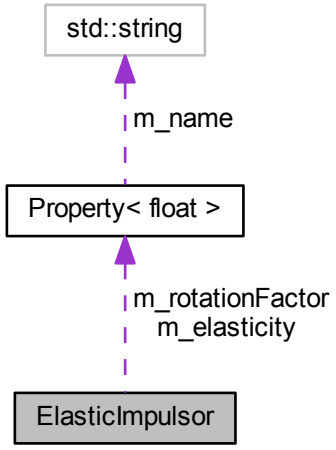
- std::list< Impulse > **m_worldObjectImpulses**

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

- src/world/handler/elasticimpulsegenerator.h
- src/world/handler/elasticimpulsegenerator.cpp

5.53 ElasticImpulsor Class Reference

Collaboration diagram for ElasticImpulsor:



Public Member Functions

- void **parse** (std::list< Impulse > &worldObjectImpulses)

Protected Attributes

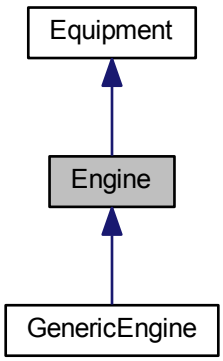
- Property< float > **m_rotationFactor**
- Property< float > **m_elasticity**

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

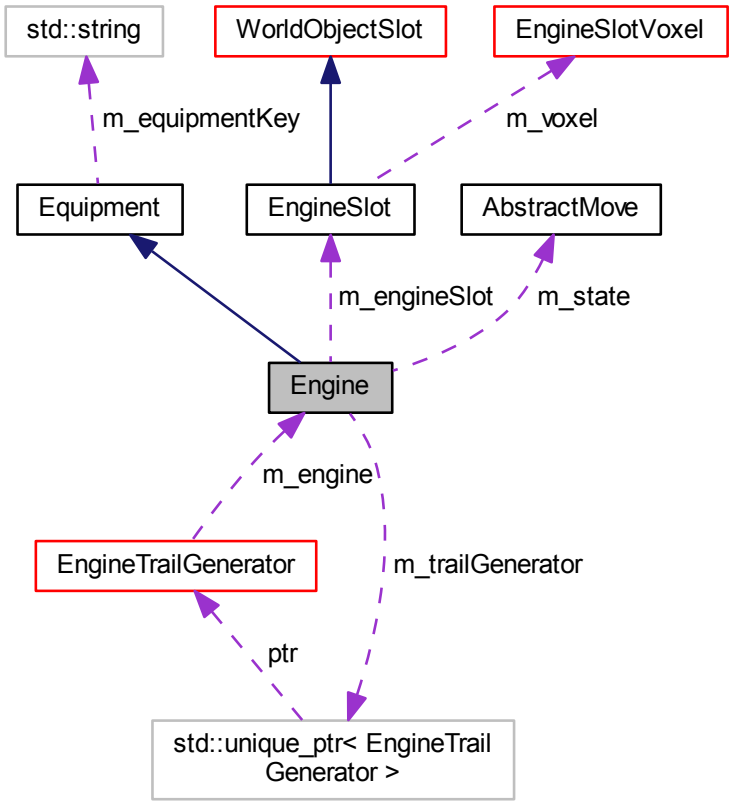
- src/world/handler/elasticimpulsor.h
- src/world/handler/elasticimpulsor.cpp

5.54 Engine Class Reference

Inheritance diagram for Engine:



Collaboration diagram for Engine:



Public Member Functions

- **Engine** (const std::string &equipmentKey)
- virtual const Visuals & **visuals** () const =0
- virtual const SoundProperties & **sound** () const =0
- EngineSlot * **engineSlot** ()
- const EngineSlot * **engineSlot** () const
- void **setEngineSlot** (EngineSlot *engineSlot)
- virtual EnginePower **power** () const =0
- const EngineState & **state** () const
- void **setState** (const EngineState &state)
- Acceleration **currentAcceleration** () const
- virtual void **update** (float deltaSec)

Protected Member Functions

- void **setupTrail** ()

Protected Attributes

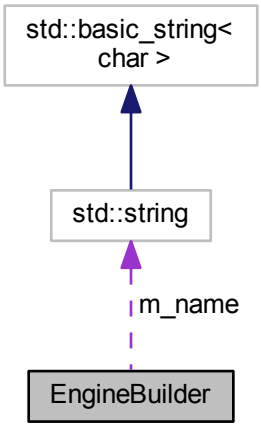
- std::unique_ptr
  < EngineTrailGenerator > **m_trailGenerator**
- std::shared_ptr< Sound > **m_sound**
- EngineSlot * **m_engineSlot**
- EngineState **m_state**

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

- src/equipment/engine.h
- src/equipment/engine.cpp

5.55 EngineBuilder Class Reference

Collaboration diagram for EngineBuilder:



Public Member Functions

- **EngineBuilder** (const std::string &name)
- Engine * **build** ()

Protected Attributes

- std::string **m_name**

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

- src/resource/enginebuilder.h
- src/resource/enginebuilder.cpp

5.56 EnginePower Class Reference

Public Member Functions

- **EnginePower** (const glm::vec4 &directional, const glm::vec3 &angular)
- const glm::vec4 & **directional** () const
- void **setDirectional** (const glm::vec4 &directional)
- const glm::vec3 & **angular** () const
- void **setAngular** (const glm::vec3 &angular)
- Acceleration **accelerationAt** (const EngineState &engineState)
- EnginePower & **operator+=** (const EnginePower &other)

Static Public Member Functions

- static EnginePower **fromProperties** (const std::string &prefix)

Protected Attributes

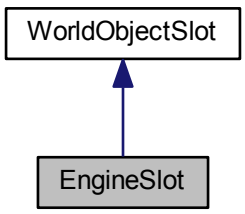
- glm::vec4 **m_directional**
- glm::vec3 **m_angular**

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

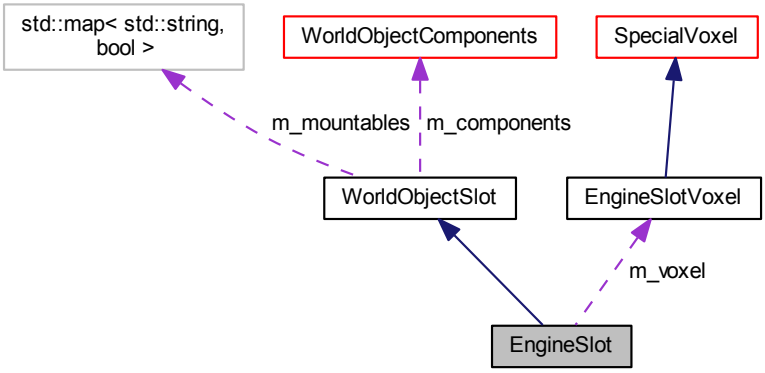
- src/equipment/enginepower.h
- src/equipment/enginepower.cpp

5.57 EngineSlot Class Reference

Inheritance diagram for EngineSlot:



Collaboration diagram for EngineSlot:



Public Member Functions

- **EngineSlot** (WorldObjectComponents *components, EngineSlotVoxel *voxel)
- const EngineSlotVoxel * **voxel** () const
- const glm::vec3 & **direction** ()
- void **setDirection** (const glm::vec3 &direction)
- const std::shared_ptr< Engine > & **engine** ()
- void **setEngine** (const std::shared_ptr< Engine > &engine)
- void **update** (float deltaSec)
- void **onVoxelRemoval** ()

Protected Attributes

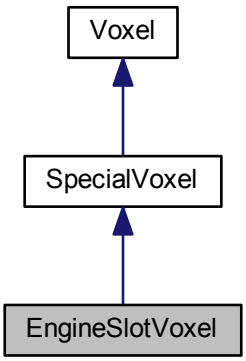
- EngineSlotVoxel * **m_voxel**
- std::shared_ptr< Engine > **m_engine**
- glm::vec3 **m_direction**

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

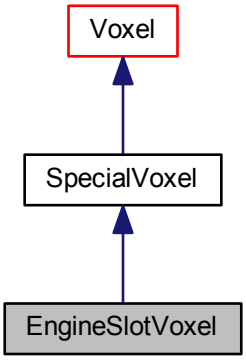
- src/equipment/engineslot.h
- src/equipment/engineslot.cpp

5.58 EngineSlotVoxel Class Reference

Inheritance diagram for EngineSlotVoxel:



Collaboration diagram for EngineSlotVoxel:



Public Member Functions

- **EngineSlotVoxel** (const glm::ivec3 &gridCell, int index)
- virtual Visuals **visuals** () const override
- virtual void **addToObject** (WorldObject *worldObject) override
- virtual void **onRemoval** () override
- virtual void **onDestruction** () override

Protected Attributes

- std::shared_ptr< EngineSlot > **m_engineSlot**

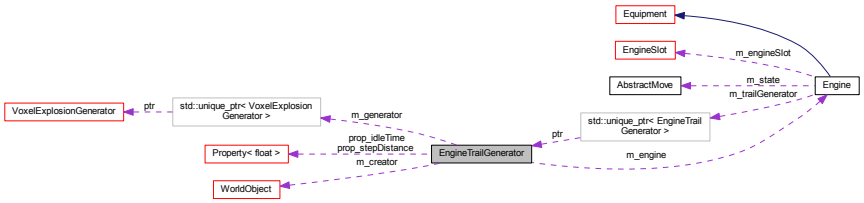
Additional Inherited Members

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

- src/voxel/specialvoxels/engineslotvoxel.h
- src/voxel/specialvoxels/engineslotvoxel.cpp

5.59 EngineTrailGenerator Class Reference

Collaboration diagram for EngineTrailGenerator:



Public Member Functions

- **EngineTrailGenerator** (Engine &engine, const WorldObject &creator)
- void **setLifetime** (float lifetime)
- void **setColor** (int color)
- void **setEmissiveness** (float emissiveness)
- void **update** (float deltaSec)

Protected Member Functions

- void **spawnTrail** ()
- void **updateTrailSettings** ()
- glm::vec3 **calculateSpawnPosition** ()
- void **spawnAt** (glm::vec3 position)

Protected Attributes

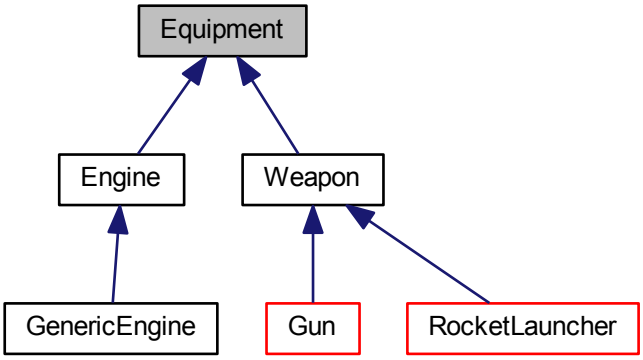
- const WorldObject & **m_creator**
- const Engine & **m_engine**
- std::unique_ptr < VoxelExplosionGenerator > **m_generator**
- glm::vec3 **m_lastSpawnPoint**
- bool **m_lastValid**
- float **m_stepRest**
- double **m_timeSinceLastSpawn**
- float **m_spawnOffset**
- Property< float > **prop_stepDistance**
- Property< float > **prop_idleTime**

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

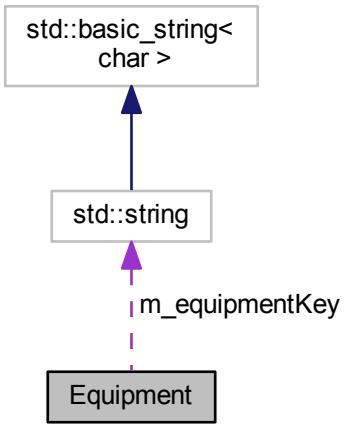
- src/voxeleffect/enginetrailgenerator.h
- src/voxeleffect/enginetrailgenerator.cpp

5.60 Equipment Class Reference

Inheritance diagram for Equipment:



Collaboration diagram for Equipment:



Public Member Functions

- **Equipment** (const std::string &equipmentKey)
- const std::string & **equipmentKey** () const

Protected Attributes

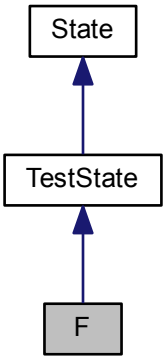
- std::string **m_equipmentKey**

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

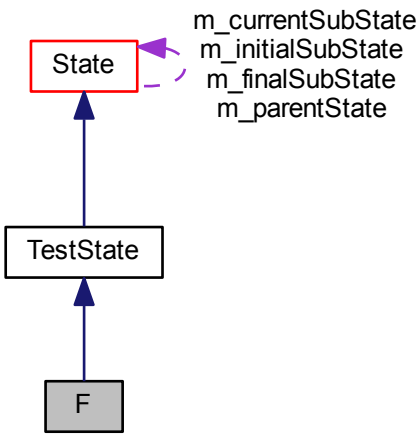
- src/equipment/equipment.h
- src/equipment/equipment.cpp

5.61 F Class Reference

Inheritance diagram for F:



Collaboration diagram for F:



Public Member Functions

- **F** (State ∗parent)

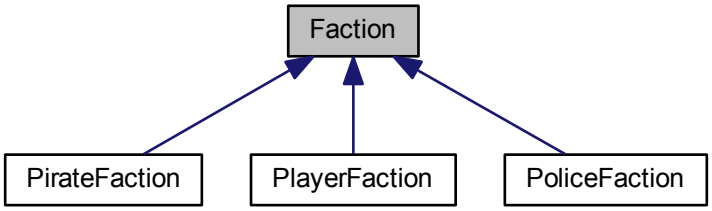
Additional Inherited Members

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

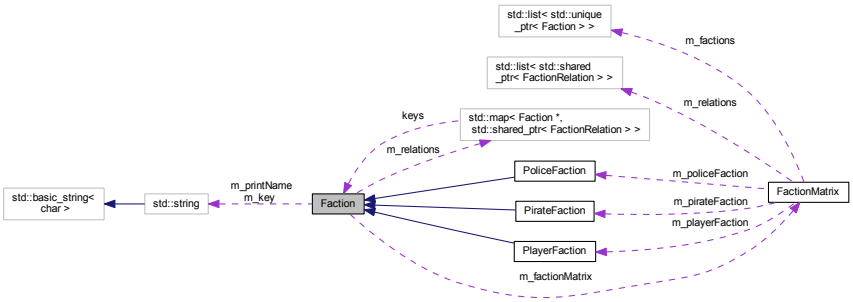
- test/statemachine/teststatemachine.cpp

5.62 Faction Class Reference

Inheritance diagram for Faction:



Collaboration diagram for Faction:



Public Member Functions

- **Faction** (FactionMatrix *factionMatrix, const std::string &key, const std::string &printName)
- const std::string & **key** () const
- const std::string & **printName** () const
- std::shared_ptr < FactionRelation > & **relationTo** (Faction *faction)
- void **setRelation** (std::shared_ptr< FactionRelation > &relation)

Protected Attributes

- FactionMatrix * **m_factionMatrix**
- std::string **m_key**

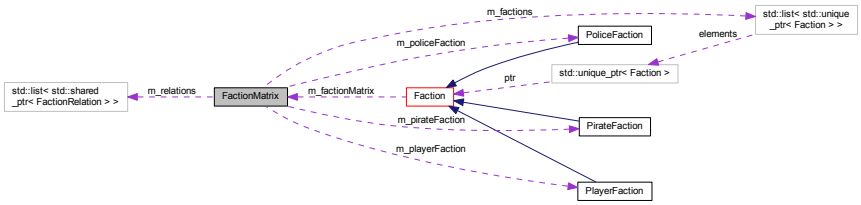
- std::string **m_printName**
- std::map< Faction *, std::shared_ptr < FactionRelation > > **m_relations**

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

- src/factions/faction.h
- src/factions/faction.cpp

5.63 FactionMatrix Class Reference

Collaboration diagram for FactionMatrix:



Public Member Functions

- PirateFaction * **pirateFaction** ()
- PoliceFaction * **policeFaction** ()
- PlayerFaction * **playerFaction** ()

Protected Member Functions

- void **setupFactionRelations** ()
- void **addFactionRelation** (std::shared_ptr< FactionRelation > relation)

Protected Attributes

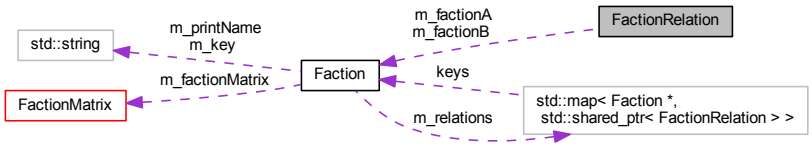
- std::list< std::unique_ptr < Faction > > **m_factions**
- std::list< std::shared_ptr < FactionRelation > > **m_relations**
- PlayerFaction * **m_playerFaction**
- PirateFaction * **m_pirateFaction**
- PoliceFaction * **m_policeFaction**

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

- src/factions/factionmatrix.h
- src/factions/factionmatrix.cpp

5.64 FactionRelation Class Reference

Collaboration diagram for FactionRelation:



Public Member Functions

- **FactionRelation** (Faction ∗factionA, Faction ∗factionB, float friendliness)
- Faction ∗ **factionA** ()
- Faction ∗ **factionB** ()
- float **friendliness** () const
- void **setFriendliness** (float friendliness)
- FactionRelationType **type** () const

Static Public Member Functions

- static std::string **typeName** (FactionRelationType type)

Protected Attributes

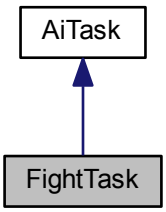
- Faction ∗ **m_factionA**
- Faction ∗ **m_factionB**
- float **m_friendliness**
- FactionRelationType **m_type**

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

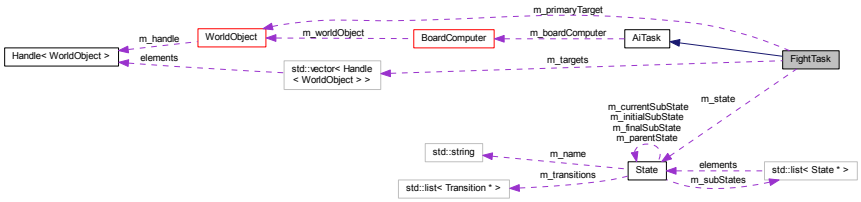
- src/factions/factionrelation.h
- src/factions/factionrelation.cpp

5.65 FightTask Class Reference

Inheritance diagram for FightTask:



Collaboration diagram for FightTask:



Public Member Functions

- **FightTask** (BoardComputer ∗boardComputer, const std::vector< Handle< WorldObject >> &targets)
- virtual void **update** (float deltaSec)
- virtual void **addTargets** (const std::vector< Handle< WorldObject >> &targets)
- virtual void **setTargets** (const std::vector< Handle< WorldObject >> &targets)
- virtual bool **isInProgress** ()

Protected Types

- enum **State** { **IDLE**, **APPROACH**, **ENGAGE**, **EVADE** }

Protected Member Functions

- void **updateTargets** ()
- void **updateState** ()
- void **setState** (State newState)
- glm::vec3 **findRandomEvasionPoint** ()
- float **targetDistance** ()
- float **pointDistance** (glm::vec3 point)
- float **angleToTarget** ()

Protected Attributes

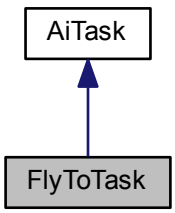
- std::vector< Handle < WorldObject > > **m_targets**
- WorldObject * **m_primaryTarget**
- State **m_state**
- bool **m_stateChanged**
- float **m_maxFireDistance**
- float **m_maxRocketDistance**
- float **m_minEnemyDistance**
- glm::vec3 **m_positionBehindTarget**

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

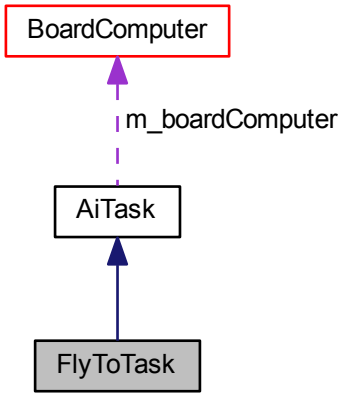
- src/ai/basictasks/fighttask.h
- src/ai/basictasks/fighttask.cpp

5.66 FlyToTask Class Reference

Inheritance diagram for FlyToTask:



Collaboration diagram for FlyToTask:



Public Member Functions

- **FlyToTask** (BoardComputer *boardComputer)
- void **setTargetPoint** (const glm::vec3 &point, const glm::vec3 &up=glm::vec3(0, 0, 0))
- virtual void **update** (float deltaSec) override

Protected Attributes

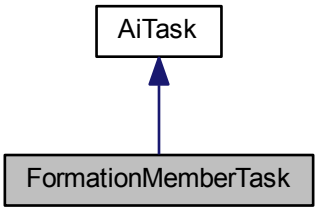
- glm::vec3 **m_targetPoint**
- glm::vec3 **m_targetUp**

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

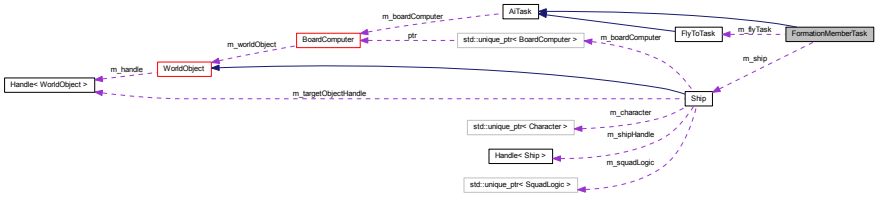
- src/ai/basictasks/flytotask.h
- src/ai/basictasks/flytotask.cpp

5.67 FormationMemberTask Class Reference

Inheritance diagram for FormationMemberTask:



Collaboration diagram for FormationMemberTask:



Public Member Functions

- **FormationMemberTask** (Ship &ship)
- virtual void **update** (float deltaSec) override

Protected Attributes

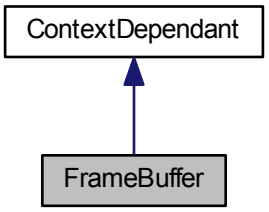
- FlyToTask **m_flyTask**
- Ship & **m_ship**

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

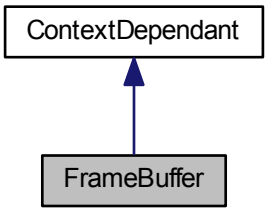
- src/ai/basictasks/formationmembertask.h
- src/ai/basictasks/formationmembertask.cpp

5.68 FrameBuffer Class Reference

Inheritance diagram for FrameBuffer:



Collaboration diagram for FrameBuffer:



Public Member Functions

- **FrameBuffer** (int colorAttachments=1, bool depthAttachment=true)
- void **bind** ()
- void **unbind** ()
- void **clear** ()
- glow::FrameBufferObject & **get** ()
- void **setDrawBuffers** (const std::vector< int > &buffers)
- void **setResolution** (const glm::ivec2 &resolution)
- const glm::ivec2 & **resolution** ()
- glow::Texture * **texture** (int i)

Protected Member Functions

- void **setupFBO** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

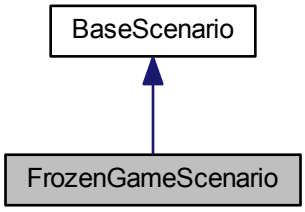
- int **m_colorAttachmentCount**
- bool **m_useDepthAttachment**
- glm::ivec2 **m_resolution**
- glow::ref_ptr
  < glow::FrameBufferObject > **m_fbo**

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

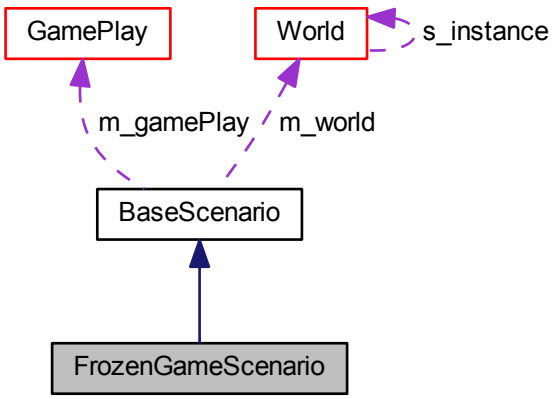
- src/display/rendering/framebuffer.h
- src/display/rendering/framebuffer.cpp

5.69 FrozenGameScenario Class Reference

Inheritance diagram for FrozenGameScenario:



Collaboration diagram for FrozenGameScenario:



Public Member Functions

- **FrozenGameScenario** (GamePlay ∗inGame)

Protected Member Functions

- virtual void **populateWorld** () override

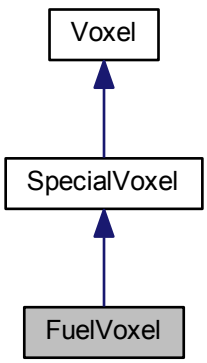
Additional Inherited Members

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

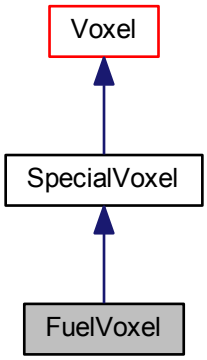
- src/scenarios/frozengamescenario.h
- src/scenarios/frozengamescenario.cpp

5.70 FuelVoxel Class Reference

Inheritance diagram for FuelVoxel:



Collaboration diagram for FuelVoxel:



Public Member Functions

- **FuelVoxel** (const glm::ivec3 &gridCell, int index)
- virtual void **addToObject** (WorldObject *worldObject) override
- virtual float **damageForwardingDestructionDamage** () override
- virtual void **onRemoval** () override
- virtual void **onDestruction** () override

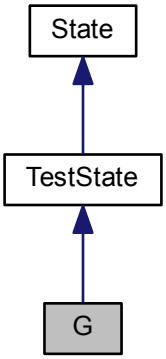
Additional Inherited Members

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

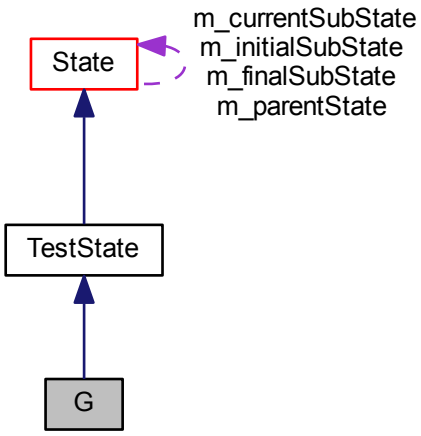
- src/voxel/specialvoxels/fuelvoxel.h
- src/voxel/specialvoxels/fuelvoxel.cpp

5.71 G Class Reference

Inheritance diagram for G:



Collaboration diagram for G:



Public Member Functions

- **G** (State ∗parent)

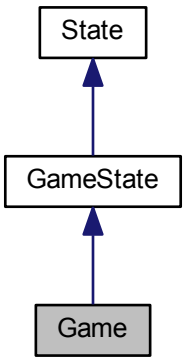
Additional Inherited Members

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

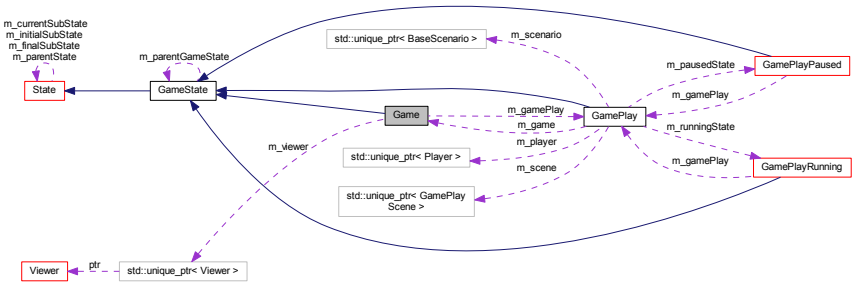
- test/statemachine/teststatemachine.cpp

5.72 Game Class Reference

Inheritance diagram for Game:



Collaboration diagram for Game:



Public Member Functions

- GamePlay & **gamePlay** ()
- virtual const Scene & **scene** () const override
- virtual const CameraHead & **cameraHead** () const override
- HMDManager & **hmdManager** ()
- Viewer & **viewer** ()
- virtual void **update** (float deltaSec) override
- void **draw** ()

Protected Attributes

- std::shared_ptr< HMDManager > **m_hmdManager**
- std::unique_ptr< Viewer > **m_viewer**
- GamePlay * **m_gamePlay**

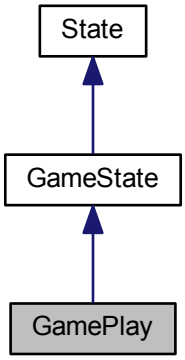
Additional Inherited Members

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

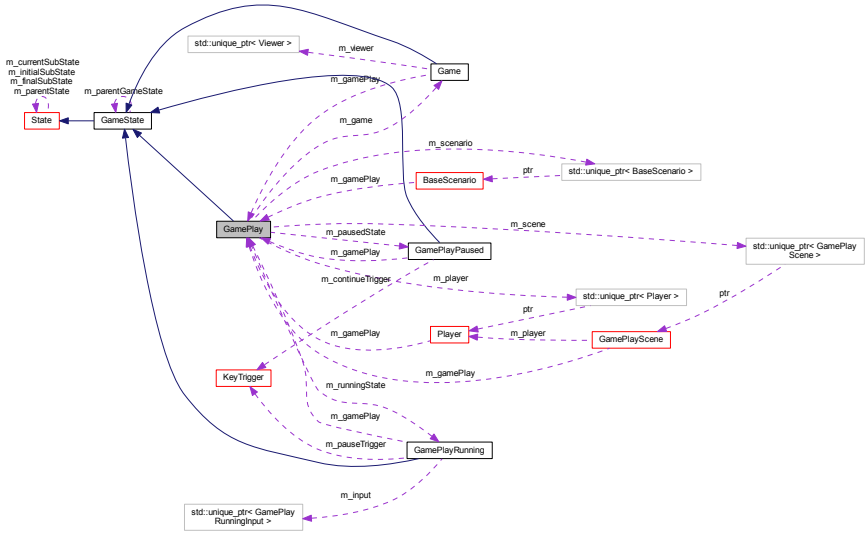
- src/gamestate/game.h
- src/gamestate/game.cpp

5.73 GamePlay Class Reference

Inheritance diagram for GamePlay:



Collaboration diagram for GamePlay:



Public Member Functions

- **GamePlay** (Game ∗game)

- Game * **game** ()
- GamePlayScene & **scene** ()
- GamePlayRunning & **running** ()
- GamePlayPaused & **paused** ()
- virtual const Scene & **scene** () const override
- virtual const CameraHead & **cameraHead** () const override
- Player & **player** ()
- SoundManager & **soundManager** ()
- void **loadScenario** (int i)
- virtual void **update** (float deltaSec) override
- virtual void **onEntered** () override
- virtual void **onLeft** () override

Protected Attributes

- Game * **m_game**
- std::unique_ptr< Player > **m_player**
- std::unique_ptr< GamePlayScene > **m_scene**
- std::unique_ptr< BaseScenario > **m_scenario**
- std::shared_ptr< SoundManager > **m_soundManager**
- GamePlayRunning * **m_runningState**
- GamePlayPaused * **m_pausedState**

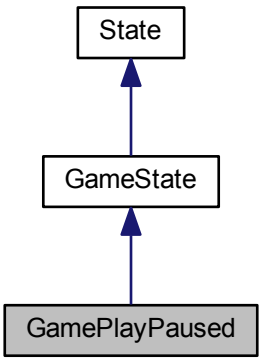
Additional Inherited Members

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

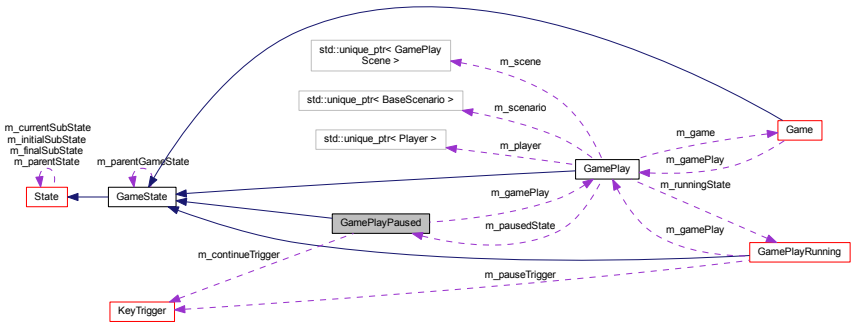
- src/gamestate/gameplay/gameplay.h
- src/gamestate/gameplay/gameplay.cpp

5.74 GamePlayPaused Class Reference

Inheritance diagram for GamePlayPaused:



Collaboration diagram for GamePlayPaused:



Public Member Functions

- **GamePlayPaused** (GamePlay ∗gamePlay)
- Trigger & **continueTrigger** ()
- virtual void **update** (float deltaSec) override
- virtual void **onEntered** () override
- virtual void **onLeft** () override

Protected Attributes

- GamePlay ∗ **m_gamePlay**
- KeyTrigger **m_continueTrigger**

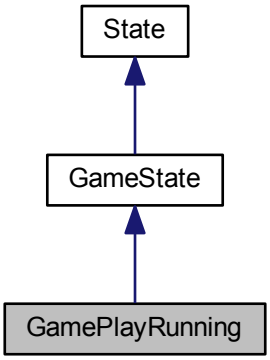
Additional Inherited Members

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

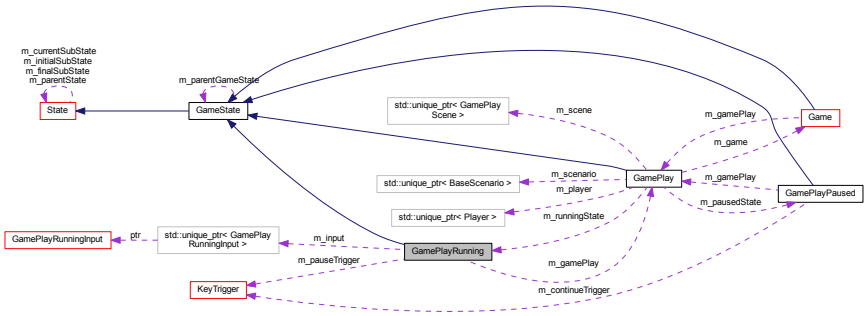
- src/gamestate/gameplay/paused/gameplaypaused.h
- src/gamestate/gameplay/paused/gameplaypaused.cpp

5.75 GamePlayRunning Class Reference

Inheritance diagram for GamePlayRunning:



Collaboration diagram for GamePlayRunning:



Public Member Functions

- **GamePlayRunning** (GamePlay ∗gamePlay)
- GamePlayRunningInput & **input** ()
- Trigger & **pauseTrigger** ()
- virtual void **update** (float deltaSec) override
- virtual void **onEntered** () override
- virtual void **onLeft** () override

Protected Attributes

- GamePlay ∗ **m_gamePlay**
- KeyTrigger **m_pauseTrigger**
- std::unique_ptr
  < GamePlayRunningInput > **m_input**

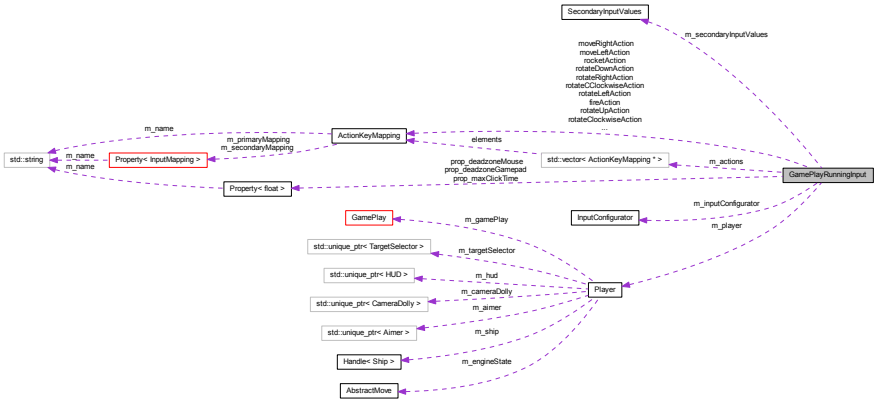
Additional Inherited Members

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

- src/gamestate/gameplay/running/gameplayrunning.h
- src/gamestate/gameplay/running/gameplayrunning.cpp

5.76 GamePlayRunningInput Class Reference

Collaboration diagram for GamePlayRunningInput:



Public Member Functions

- **GamePlayRunningInput** (Player ∗player)
- void **resizeEvent** (const unsigned int width, const unsigned int height)
- void **keyCallback** (int key, int scancode, int action, int mods)
- void **mouseButtonCallback** (int button, int action, int mods)
- void **update** (float deltaSec)

Protected Member Functions

- void **toggleControls** ()
- void **processUpdate** ()
- void **processMouseUpdate** (float deltaSec)
- void **processHMDUpdate** ()
- void **applyUpdates** ()
- void **processFireActions** ()
- void **processMoveActions** ()
- void **processRotateActions** ()
- void **processTargetSelectActions** ()
- float **getInputValue** (ActionKeyMapping ∗action)
- float **getInputValue** (InputMapping mapping)
- void **addActionsToVector** ()
- void **setupJoystickControls** ()
- void **retrieveInputValues** ()
- void **placeCrossHair** (double winX, double winY)

Protected Attributes

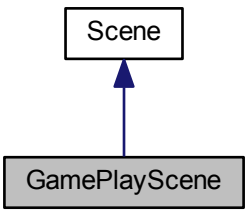
- Player * **m_player**
- InputConfigurator * **m_inputConfigurator**
- SecondaryInputValues **m_secondaryInputValues**
- std::vector< ActionKeyMapping * > **m_actions**
- bool **m_mouseControl**
- int **m_cursorMaxDistance**
- int **m_lastfocus**
- float **m_currentTimePressed**
- Property< float > **prop_deadzoneMouse**
- Property< float > **prop_deadzoneGamepad**
- Property< float > **prop_maxClickTime**
- ActionKeyMapping **fireAction**
- ActionKeyMapping **rocketAction**
- ActionKeyMapping **moveLeftAction**
- ActionKeyMapping **moveRightAction**
- ActionKeyMapping **moveForwardAction**
- ActionKeyMapping **moveBackwardAction**
- ActionKeyMapping **rotateLeftAction**
- ActionKeyMapping **rotateRightAction**
- ActionKeyMapping **rotateUpAction**
- ActionKeyMapping **rotateDownAction**
- ActionKeyMapping **rotateClockwiseAction**
- ActionKeyMapping **rotateCClockwiseAction**
- ActionKeyMapping **selectNextAction**
- ActionKeyMapping **selectPreviousAction**
- glm::vec3 **m_moveUpdate**
- glm::vec3 **m_rotateUpdate**
- bool **m_fireUpdate**
- bool **m_rocketUpdate**

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

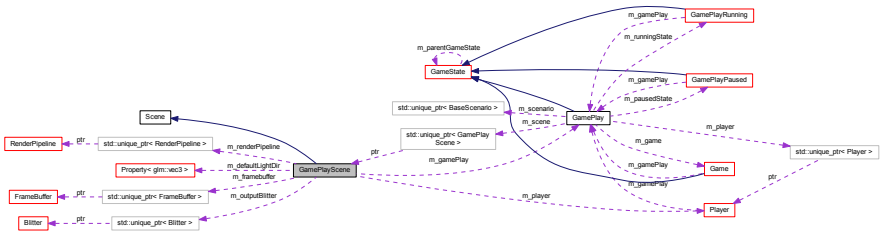
- src/gamestate/gameplay/running/gameplayrunninginput.h
- src/gamestate/gameplay/running/gameplayrunninginput.cpp

5.77 GamePlayScene Class Reference

Inheritance diagram for GamePlayScene:



Collaboration diagram for GamePlayScene:



Public Member Functions

- **GamePlayScene** (GamePlay ∗gamePlay, Player &player)
- void **setPlayer** (Player ∗player)
- virtual void **draw** (const Camera &camera, glow::FrameBufferObject ∗target, EyeSide side=EyeSide::None) const override
- virtual void **update** (float deltaSec) override
- void **setOutputBuffer** (int i)

Protected Member Functions

- void **drawGame** (const Camera &camera) const

Protected Attributes

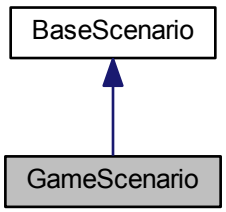
- std::unique_ptr< Blitter > **m_outputBlitter**
- std::unique_ptr< RenderPipeline > **m_renderPipeline**
- std::unique_ptr< FrameBuffer > **m_framebuffer**
- std::shared_ptr< VoxelRenderer > **m_voxelRenderer**
- std::shared_ptr< Starfield > **m_starField**
- GamePlay ∗ **m_gamePlay**
- Player ∗ **m_player**
- Property< glm::vec3 > **m_defaultLightDir**
- int **m_currentOutputBuffer**

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

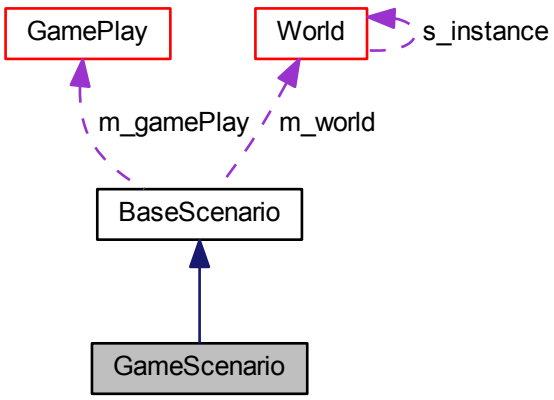
- src/gamestate/gameplay/gameplayscene.h
- src/gamestate/gameplay/gameplayscene.cpp

5.78 GameScenario Class Reference

Inheritance diagram for GameScenario:



Collaboration diagram for GameScenario:



Public Member Functions

- **GameScenario** (GamePlay ∗inGame)

Protected Member Functions

- virtual void **populateWorld** () override
- void **createArmada** ()

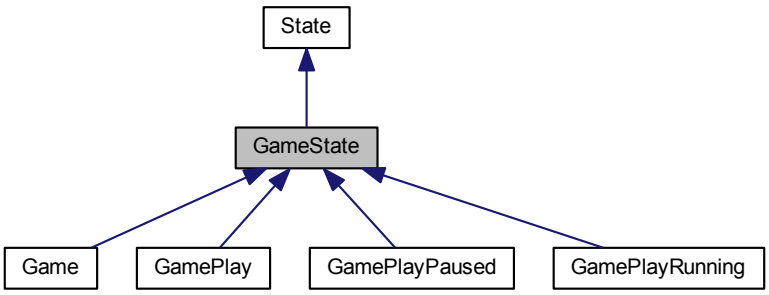
Additional Inherited Members

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

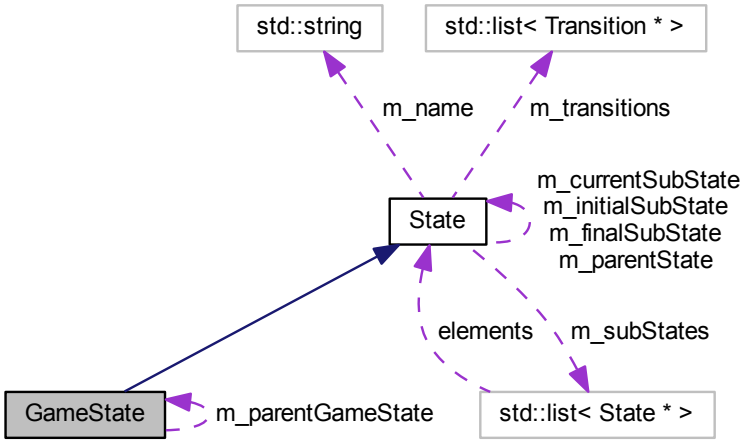
- src/scenarios/gamescenario.h
- src/scenarios/gamescenario.cpp

5.79 GameState Class Reference

Inheritance diagram for GameState:



Collaboration diagram for GameState:



Public Member Functions

- **GameState** (const std::string &name, GameState *parent)
- GameState * **parentGameState** ()
- virtual const Scene & **scene** () const
- virtual const CameraHead & **cameraHead** () const
- virtual void **update** (float deltaSec) override
- virtual void **onEntered** () override
- virtual void **onLeft** () override

Protected Attributes

- GameState * **m_parentGameState**

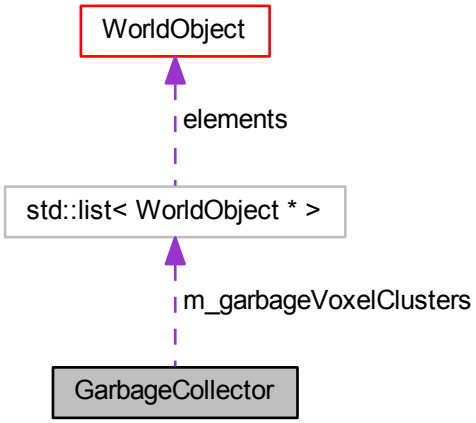
Additional Inherited Members

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

- src/gamestate/gamestate.h
- src/gamestate/gamestate.cpp

5.80 GarbageCollector Class Reference

Collaboration diagram for GarbageCollector:



Public Member Functions

- void **check** (std::unordered_set< WorldObject * > &modifiedVoxelClusters)
- std::list< WorldObject * > & **garbageVoxelClusters** ()

Protected Attributes

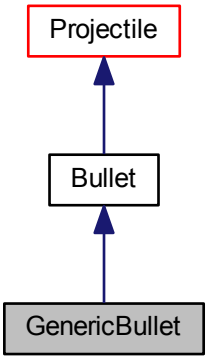
- std::list< WorldObject * > **m_garbageVoxelClusters**

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

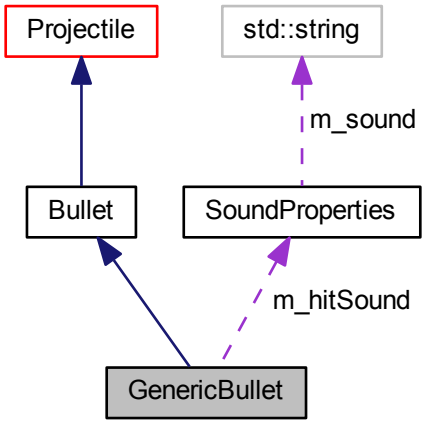
- src/world/handler/garbagecollector.h
- src/world/handler/garbagecollector.cpp

5.81 GenericBullet Class Reference

Inheritance diagram for GenericBullet:



Collaboration diagram for GenericBullet:



Public Member Functions

- virtual float **emissiveness** () const override
- void **setEmissiveness** (float emissiveness)
- virtual const SoundProperties & **hitSound** () const override
- void **setHitSound** (const SoundProperties &hitSound)

Protected Member Functions

- virtual void **spawnExplosion** () override

Protected Attributes

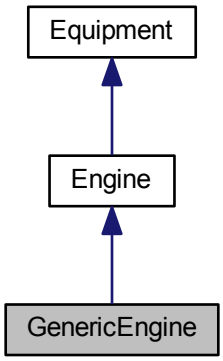
- float **m_emissiveness**
- SoundProperties **m_hitSound**

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

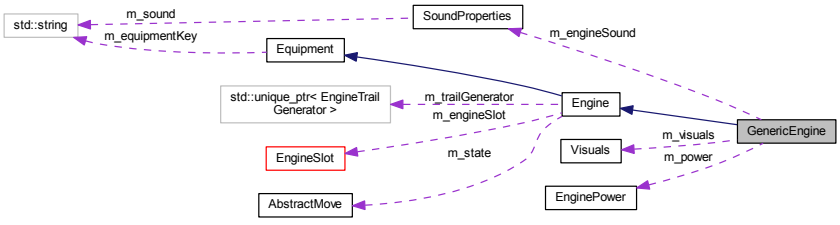
- src/equipment/weapons/genericbullet.h
- src/equipment/weapons/genericbullet.cpp

5.82 GenericEngine Class Reference

Inheritance diagram for GenericEngine:



Collaboration diagram for GenericEngine:



Public Member Functions

- **GenericEngine** (const std::string &equipmentKey)

- virtual const Visuals & **visuals** () const override
- void **setVisuals** (const Visuals &visuals)
- virtual const SoundProperties & **sound** () const override
- void **setEngineSound** (const SoundProperties &engineSound)
- virtual EnginePower **power** () const override
- void **setPower** (const EnginePower &power)
- virtual void **update** (float deltaSec) override

Protected Attributes

- EnginePower **m_power**
- Visuals **m_visuals**
- SoundProperties **m_engineSound**

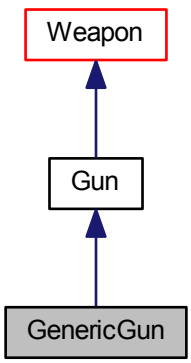
Additional Inherited Members

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

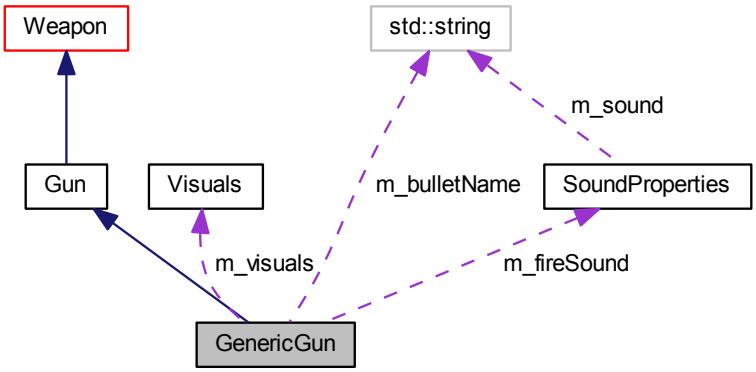
- src/equipment/engines/genericengine.h
- src/equipment/engines/genericengine.cpp

5.83 GenericGun Class Reference

Inheritance diagram for GenericGun:



Collaboration diagram for GenericGun:



Public Member Functions

- **GenericGun** (const std::string &name)
- virtual float **bulletLifetime** () const override
- void **setBulletLifetime** (float bulletLifetime)
- virtual float **bulletSpeed** () const override
- void **setBulletSpeed** (float bulletSpeed)
- virtual const Visuals & **visuals** () const override
- void **setVisuals** (const Visuals &visuals)
- virtual const SoundProperties & **fireSound** () const override
- void **setFireSound** (const SoundProperties &fireSound)
- virtual float **cooldownTime** () const override
- void **setCooldownTime** (float cooldownTime)
- const std::string & **bulletName** () const
- void **setBulletName** (const std::string &bulletName)

Protected Member Functions

- virtual Bullet * **createBullet** () override

Protected Attributes

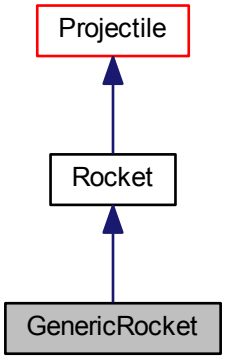
- float **m_bulletSpeed**
- float **m_bulletLifetime**
- float **m_cooldownTime**
- Visuals **m_visuals**
- SoundProperties **m_fireSound**
- std::string **m_bulletName**

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

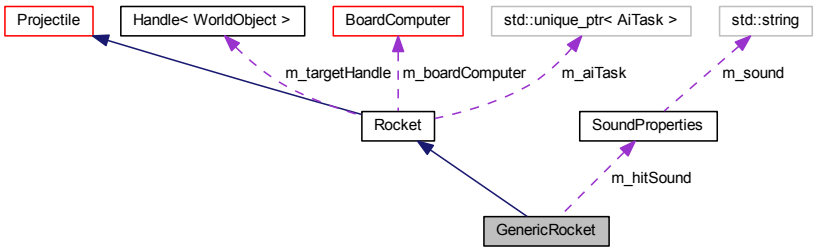
- src/equipment/weapons/genericgun.h
- src/equipment/weapons/genericgun.cpp

5.84 GenericRocket Class Reference

Inheritance diagram for GenericRocket:



Collaboration diagram for GenericRocket:



Public Member Functions

- virtual const SoundProperties & **hitSound** () const override
- void **setHitSound** (const SoundProperties &hitSound)

Protected Member Functions

- virtual void **spawnExplosion** () override
- virtual void **onLifetimeOver** () override

Protected Attributes

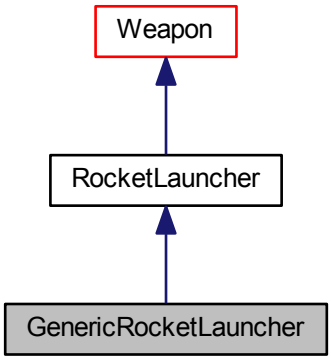
- SoundProperties **m_hitSound**

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

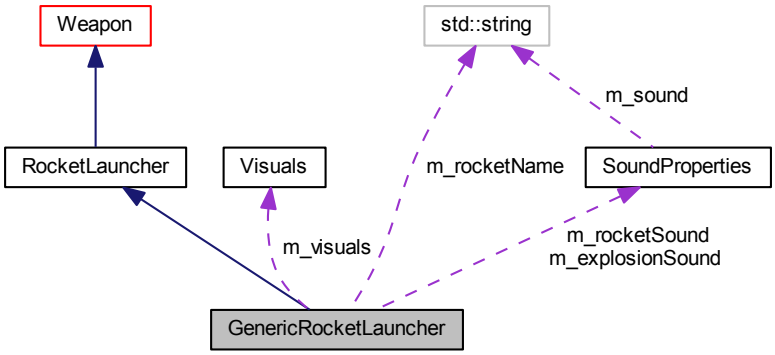
- src/equipment/weapons/genericrocket.h
- src/equipment/weapons/genericrocket.cpp

5.85 GenericRocketLauncher Class Reference

Inheritance diagram for GenericRocketLauncher:



Collaboration diagram for GenericRocketLauncher:



Public Member Functions

- **GenericRocketLauncher** (const std::string &name)
- virtual const Visuals & **visuals** () const override
- void **setVisuals** (const Visuals &visuals)
- virtual float **cooldownTime** () const override
- void **setCooldownTime** (float cooldownTime)
- const Rocket * **rocketPrototype** () const

- void **setRocketPrototype** (Rocket *rocketPrototype)
- const std::string & **rocketName** () const
- void **setRocketName** (const std::string &rocketName)

Protected Member Functions

- virtual Rocket * **createRocket** () override

Protected Attributes

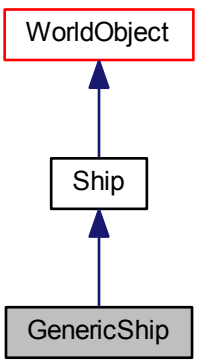
- float **m_cooldownTime**
- SoundProperties **m_rocketSound**
- SoundProperties **m_explosionSound**
- Visuals **m_visuals**
- std::string **m_rocketName**

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

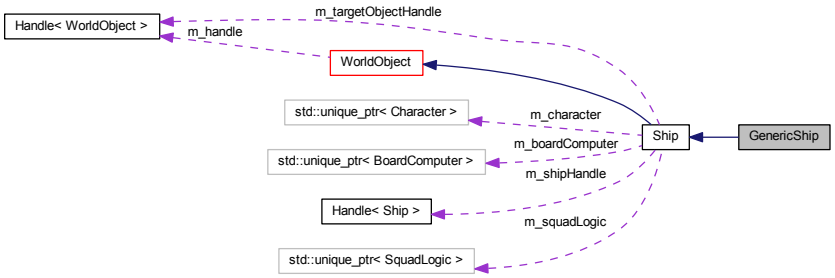
- src/equipment/weapons/genericrocketlauncher.h
- src/equipment/weapons/genericrocketlauncher.cpp

5.86 GenericShip Class Reference

Inheritance diagram for GenericShip:



Collaboration diagram for GenericShip:



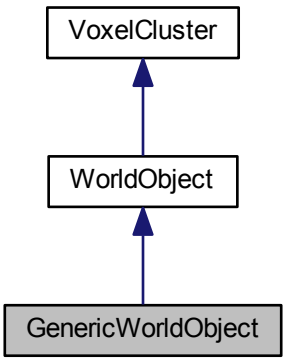
Additional Inherited Members

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

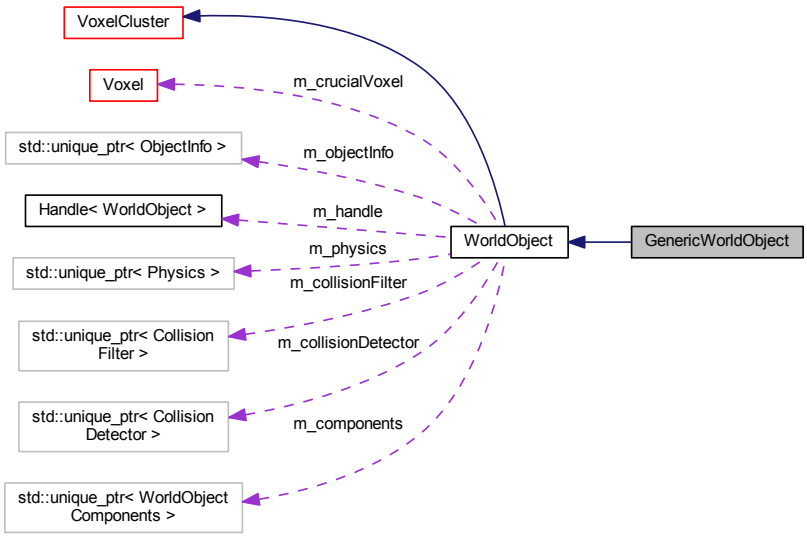
- src/worldobject/genericship.h
- src/worldobject/genericship.cpp

5.87 GenericWorldObject Class Reference

Inheritance diagram for GenericWorldObject:



Collaboration diagram for GenericWorldObject:



Additional Inherited Members

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

- src/worldobject/genericworldobject.h
- src/worldobject/genericworldobject.cpp

5.88 GeometryHelper Class Reference

Static Public Member Functions

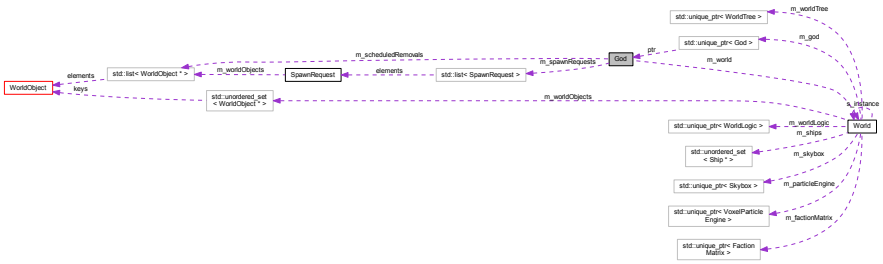
- static bool **intersectRectangle** (const Ray *ray, const glm::vec3 &p, const glm::vec3 &q, const glm::vec3 &r, const glm::vec3 &s)
- static bool **intersectRectangle** (const Ray *ray, const glm::vec3 &p, const glm::vec3 &q, const glm::vec3 &r, const glm::vec3 &s, glm::vec3 &intersection)
- static glm::vec3 **plane** (const glm::vec3 &p, const glm::vec3 &q, const glm::vec3 &r)
- static float **angleBetween** (const glm::vec3 &u, const glm::vec3 &v)
- static float **angleBetweenVectorPlane** (const glm::vec3 &u, const glm::vec3 &v)
- static glm::quat **quatFromTo** (const glm::vec3 &u, const glm::vec3 &v)
- static glm::quat **quatFromViewDirection** (const glm::vec3 &dir)
- static WorldObject * **closestObject** (WorldObject &self, std::unordered_set< WorldObject * > *objects)
- template<typename T >
  static T **safeNormalize** (const T &value)

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

- src/utils/geometryhelper.h
- src/utils/geometryhelper.cpp
- src/utils/geometryhelper.inl

5.89 God Class Reference

Collaboration diagram for God:



Public Member Functions

- **God** (World &world)
- void **scheduleSpawn** (SpawnRequest spawnRequest)
- void **scheduleRemoval** (WorldObject *worldObject)
- void **scheduleRemovals** (const std::list< WorldObject * > &removals)
- void **spawn** ()
- void **remove** ()

Protected Attributes

- World & **m_world**
- std::list< SpawnRequest > **m_spawnRequests**
- std::list< WorldObject * > **m_scheduledRemovals**

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

- src/world/god.h
- src/world/god.cpp

5.90 GridAABB Class Reference

Public Member Functions

- **GridAABB** (const glm::ivec3 &llf, const glm::ivec3 &rub)
- const glm::ivec3 & **llf** () const
- void **setLLF** (const glm::ivec3 &llf)
- const glm::ivec3 & **rub** () const
- void **setRUB** (const glm::ivec3 &rub)
- bool **contains** (const glm::ivec3 &cell) const
- int **extent** (Axis axis) const
- float **diameter** () const
- bool **operator==** (const GridAABB &other) const

Protected Attributes

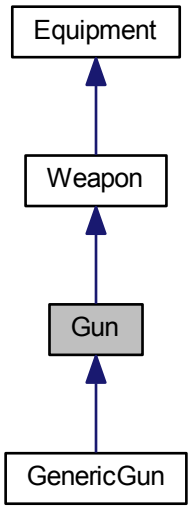
- glm::ivec3 **m_llf**
- glm::ivec3 **m_rub**

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

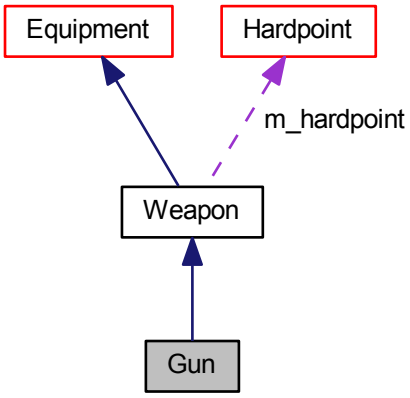
- src/geometry/gridaabb.h
- src/geometry/gridaabb.cpp

5.91 Gun Class Reference

Inheritance diagram for Gun:



Collaboration diagram for Gun:



Public Member Functions

- **Gun** (const std::string &equipmentKey)
- virtual const SoundProperties & **fireSound** () const =0
- virtual float **bulletLifetime** () const =0
- virtual float **bulletSpeed** () const =0
- virtual void **fireAtPoint** (const glm::vec3 &point)
- virtual void **update** (float deltaSec) override

Protected Member Functions

- virtual Bullet * **createBullet** ()=0
- void **setupBullet** (Bullet *bullet, const glm::vec3 &point)

Additional Inherited Members

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

- src/equipment/weapons/gun.h
- src/equipment/weapons/gun.cpp

5.92 Handle< T > Class Template Reference

Public Member Functions

- **Handle** (T *object)
- T * **get** ()
- const T * **get** () const
- T * **operator->** ()
- T * **operator*** ()
- bool **valid** () const
- void **invalidate** ()

Protected Attributes

- std::shared_ptr< HandleImpl< T > > **m_impl**

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

- src/worldobject/handle/handle.h
- src/worldobject/handle/handle.inl

5.93 HandleImpl< T > Class Template Reference

Public Member Functions

- **HandleImpl** (T *object)
- T * **get** ()
- const T * **get** () const
- bool **valid** () const
- void **invalidate** ()

Protected Attributes

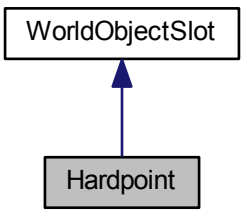
- T * **m_object**

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

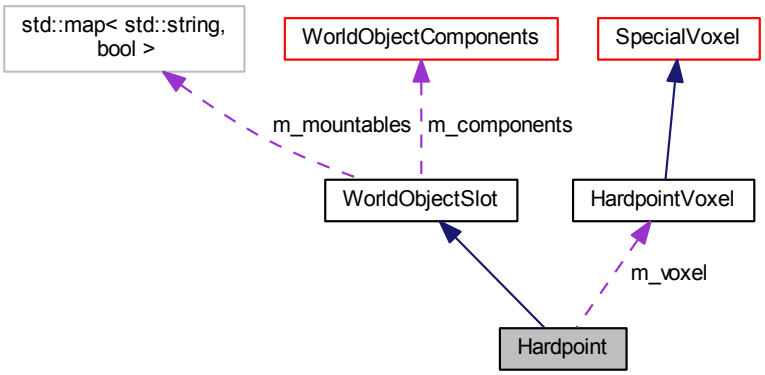
- src/worldobject/handle/handle.h
- src/worldobject/handle/handleimpl.h
- src/worldobject/handle/handleimpl.inl

5.94 Hardpoint Class Reference

Inheritance diagram for Hardpoint:



Collaboration diagram for Hardpoint:



Public Member Functions

- **Hardpoint** (WorldObjectComponents *components, HardpointVoxel *voxel)
- HardpointVoxel * **voxel** ()
- const std::shared_ptr< Weapon > & **weapon** ()
- void **setWeapon** (const std::shared_ptr< Weapon > &weapon)
- const glm::vec3 & **direction** () const
- void **setDirection** (const glm::vec3 &direction)
- float **fieldOfAim** () const
- void **setFieldOfAim** (float fieldOfAim)
- bool **inFieldOfAim** (const glm::vec3 &point)
- void **update** (float deltaSec)
- void **onVoxelRemoval** ()

Protected Attributes

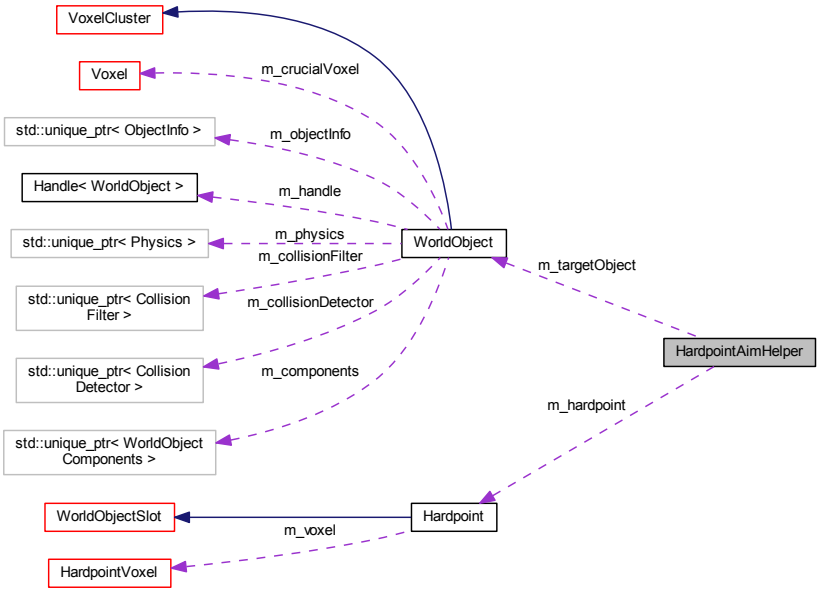
- HardpointVoxel * **m_voxel**
- std::shared_ptr< Weapon > **m_weapon**
- glm::vec3 **m_direction**
- float **m_fieldOfAim**

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

- src/equipment/hardpoint.h
- src/equipment/hardpoint.cpp

5.95 HardpointAimHelper Class Reference

Collaboration diagram for HardpointAimHelper:



Public Member Functions

- **HardpointAimHelper** (Hardpoint *hardpoint, WorldObject *targetObject)
- void **aim** ()
- bool **isHitable** ()
- const glm::vec3 & **direction** ()
- const glm::vec3 & **point** ()

Protected Member Functions

- float **bulletTravelTime** (const glm::vec3 &point)
- glm::vec3 **targetPositionIn** (float deltaSec)
- float **bulletSpeedInDirection** (const glm::vec3 &direction)

Protected Attributes

- Hardpoint * **m_hardpoint**
- WorldObject * **m_targetObject**
- bool **m_aimed**
- glm::vec3 **m_hardpointPosition**
- glm::vec3 **m_targetPosition**
- glm::vec3 **m_targetSpeed**
- float **m_bulletSpeed**
- float **m_bulletLifetime**
- bool **m_hitable**
- glm::vec3 **m_direction**

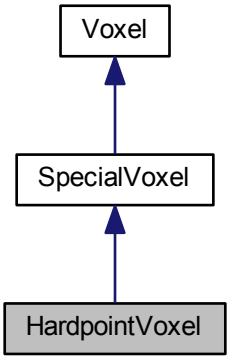
- glm::vec3 **m_point**

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

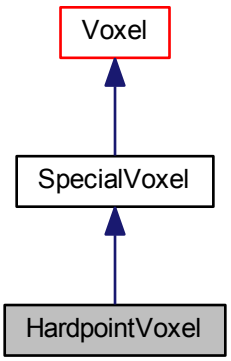
- src/worldobject/helper/hardpointaimhelper.h
- src/worldobject/helper/hardpointaimhelper.cpp

5.96 HardpointVoxel Class Reference

Inheritance diagram for HardpointVoxel:



Collaboration diagram for HardpointVoxel:



Public Member Functions

- **HardpointVoxel** (const glm::ivec3 &gridCell, int index)

- virtual Visuals **visuals** () const override
- virtual void **addToObject** (WorldObject *object) override
- virtual void **onRemoval** () override
- virtual void **onDestruction** () override

Protected Attributes

- std::shared_ptr< Hardpoint > **m_hardpoint**

Additional Inherited Members

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

- src/voxel/specialvoxels/hardpointvoxel.h
- src/voxel/specialvoxels/hardpointvoxel.cpp

5.97 std::hash< glm::ivec3 > Struct Template Reference

Public Member Functions

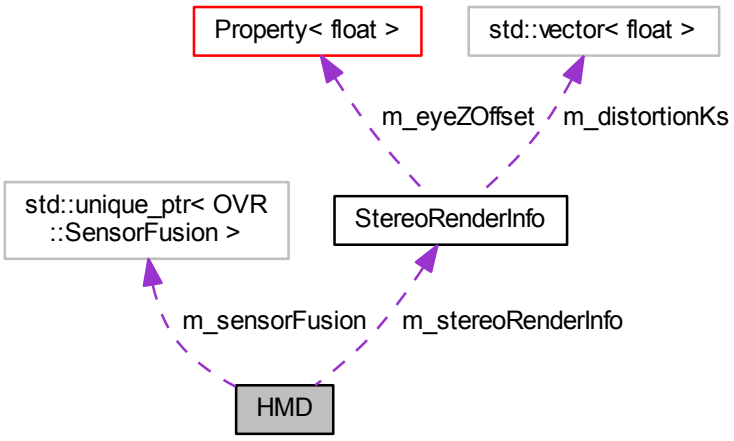
- std::size_t **operator()** (const glm::ivec3 &v) const

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

- src/utils/vec3hash.h

5.98 HMD Class Reference

Collaboration diagram for HMD:



Public Member Functions

- **HMD** (OVR::HMDDevice *hmdDevice)
- glm::quat **orientation** ()
- const StereoRenderInfo & **stereoRenderInfo** () const

Protected Attributes

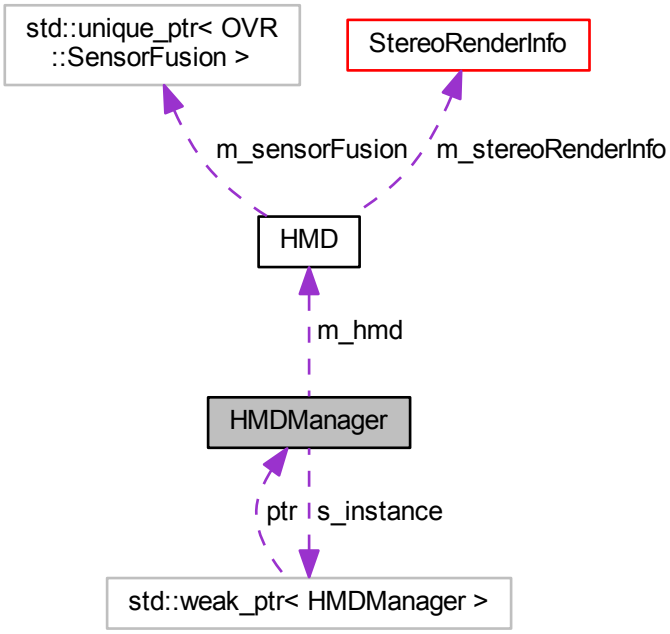
- std::unique_ptr < OVR::SensorFusion > **m_sensorFusion**
- OVR::HMDDevice * **m_hmdDevice**
- OVR::SensorDevice * **m_sensorDevice**
- StereoRenderInfo **m_stereoRenderInfo**

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

- src/etc/hmd/hmd.h
- src/etc/hmd/hmd.cpp

5.99 HMDManager Class Reference

Collaboration diagram for HMDManager:



Public Member Functions

- void **setupHMD** (Viewer &viewer)
- HMD * **hmd** ()

Static Public Member Functions

- static std::shared_ptr
  < HMDManager > **instance** ()

Protected Attributes

- HMD ∗ **m_hmd**
- OVR::DeviceManager ∗ **m_deviceManager**

Static Protected Attributes

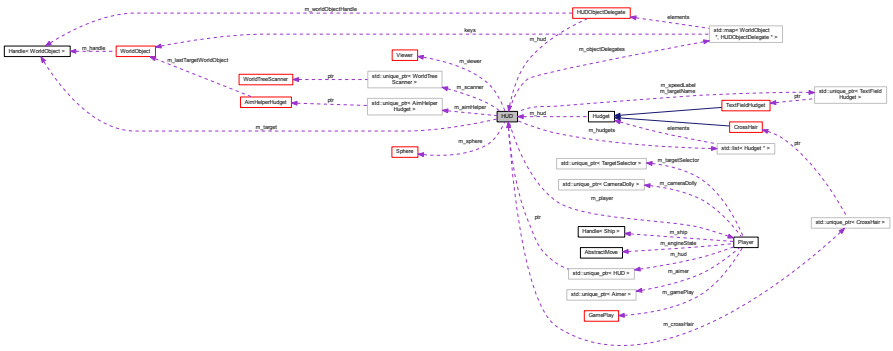
- static std::weak_ptr< HMDManager > **s_instance**

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

- src/etc/hmd/hmdmanager.h
- src/etc/hmd/hmdmanager.cpp

5.100 HUD Class Reference

Collaboration diagram for HUD:



Public Member Functions

- **HUD** (Player ∗player, Viewer ∗viewer)
- Player ∗ **player** ()
- const Sphere & **sphere** () const
- CrossHair & **crossHair** ()
- AimHelperHudget & **aimHelper** ()
- glm::vec3 **centerOfView** () const
- glm::vec3 **position** () const
- glm::quat **orientation** () const
- void **addHudget** (Hudget ∗hudget)
- void **removeHudget** (Hudget ∗hudget)
- void **addObjectDelegate** (HUDObjectDelegate ∗objectDelegate)
- void **removeObjectDelegate** (HUDObjectDelegate ∗objectDelegate)
- HUDObjectDelegate ∗ **objectDelegate** (WorldObject ∗worldObject)
- void **setCrossHairOffset** (const glm::vec2 &mousePosition)

- void **setTarget** (WorldObject *target)
- WorldObject * **target** ()
- void **onClick** (ClickType clickType)
- void **update** (float deltaSec)
- void **draw** ()
- glm::vec3 **applyTo** (const glm::vec3 &vertex) const
- Viewer * **viewer** () const
- float **fovy** () const
- float **fovx** () const

Protected Member Functions

- void **updateScanner** (float deltaSec)
- void **updateFov** ()

Protected Attributes

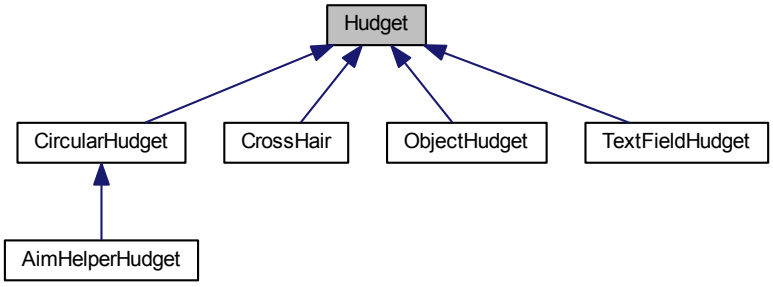
- Player * **m_player**
- Viewer * **m_viewer**
- Sphere **m_sphere**
- Handle< WorldObject > **m_target**
- float **m_fovy**
- float **m_fovx**
- std::unique_ptr< AimHelperHudget > **m_aimHelper**
- std::unique_ptr< CrossHair > **m_crossHair**
- std::unique_ptr< WorldTreeScanner > **m_scanner**
- std::unique_ptr< TextFieldHudget > **m_speedLabel**
- std::unique_ptr< TextFieldHudget > **m_targetName**
- std::list< Hudget * > **m_hudgets**
- std::map< WorldObject *, HUDObjectDelegate * > **m_objectDelegates**

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

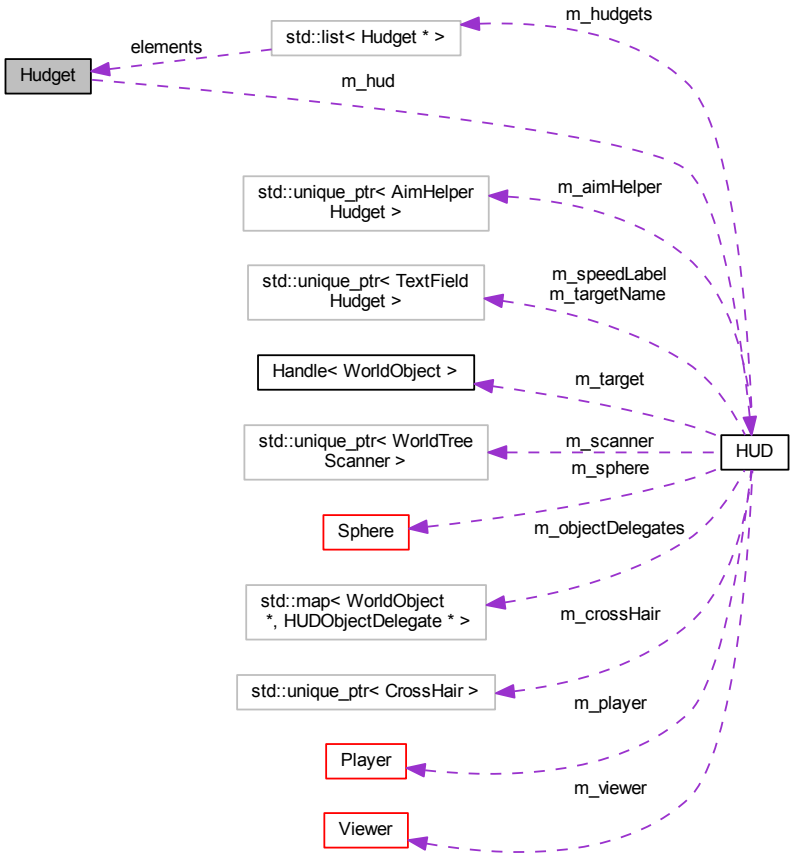
- src/ui/hud/hud.h
- src/ui/hud/hud.cpp

5.101 Hudget Class Reference

Inheritance diagram for Hudget:



Collaboration diagram for Hudget:



Public Member Functions

- **Hudget** (HUD ∗hud)
- HUD ∗ **hud** ()
- bool **visible** () const
- void **setVisible** (bool visible)
- bool **pressed** () const
- bool **hovered** () const
- bool **clicked** () const
- bool **released** () const
- bool **entered** () const
- bool **left** () const
- virtual void **onClick** (ClickType clickType)
- virtual bool **isAt** (const Ray &ray) const
- virtual void **pointerAt** (const Ray &ray, bool pressed)
- void **setRelativeDistance** (float relativeDistance)
- void **pointToWorldPoint** (const glm::vec3 &worldPoint)
- void **pointToLocalPoint** (const glm::vec3 &localPoint)
- glm::vec3 **localDirection** () const
- glm::vec3 **worldDirection** () const
- float **directionAngle** () const

- void **setDirectionAngle** (float directionAngle)
- glm::vec3 **worldPosition** () const
- glm::vec3 **worldPosition** (const glm::vec3 &localVector) const
- glm::quat **worldOrientation** () const
- glm::quat **worldOrientation** (const glm::vec3 &localVector) const
- virtual void **update** (float deltaSec)=0
- virtual void **draw** ()=0

Protected Attributes

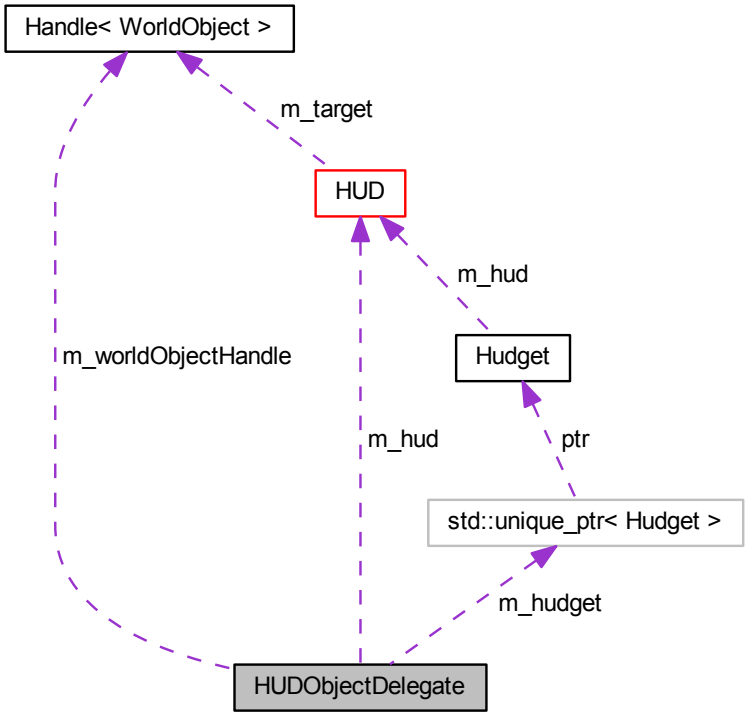
- HUD * **m_hud**
- glm::vec3 **m_direction**
- float **m_directionAngle**
- float **m_relativeDistance**
- bool **m_visible**
- bool **m_pressed**
- bool **m_hovered**
- bool **m_clicked**
- bool **m_released**
- bool **m_entered**
- bool **m_left**

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

- src/ui/hud/hudget.h
- src/ui/hud/hudget.cpp

5.102 HUDObjectDelegate Class Reference

Collaboration diagram for HUDObjectDelegate:



Public Member Functions

- **HUDObjectDelegate** (HUD *hud, WorldObject *worldObject)
- HUD * **hud** ()
- WorldObject * **worldObject** ()
- Hudget & **hudget** ()

Protected Attributes

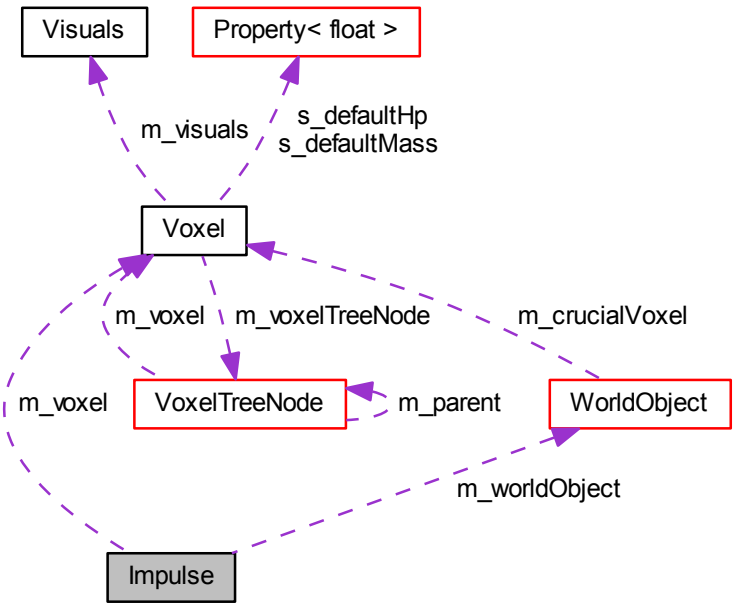
- HUD * **m_hud**
- Handle< WorldObject > **m_worldObjectHandle**
- std::unique_ptr< Hudget > **m_hudget**

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

- src/ui/hud/hudobjectdelegate.h
- src/ui/hud/hudobjectdelegate.cpp

5.103 Impulse Class Reference

Collaboration diagram for Impulse:



Public Member Functions

- **Impulse** (WorldObject *worldObject, Voxel *voxel, const glm::vec3 &speed, float mass, const glm::vec3 &normal)
- WorldObject * **worldObject** ()
- const WorldObject * **worldObject** () const
- Voxel * **voxel** ()
- const Voxel * **voxel** () const
- const glm::vec3 & **speed** () const
- float **mass** () const
- const glm::vec3 & **normal** () const
- void **add** (const Impulse &impulse)

Protected Attributes

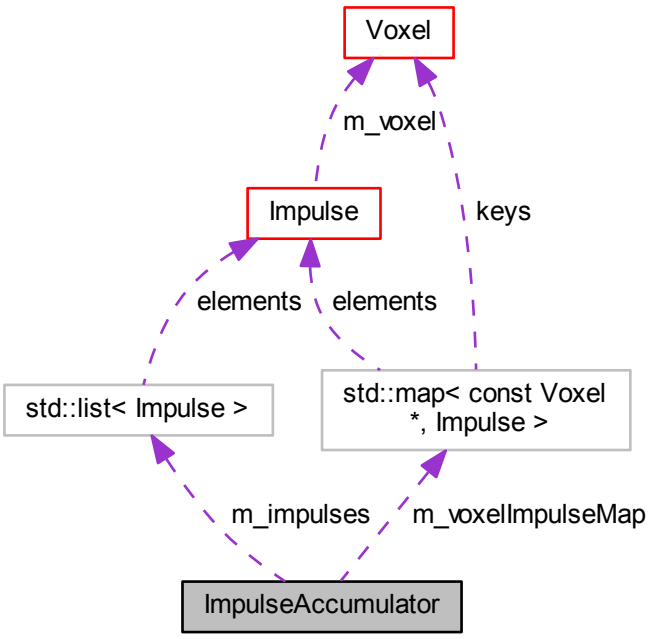
- WorldObject * **m_worldObject**
- Voxel * **m_voxel**
- glm::vec3 **m_speed**
- float **m_mass**
- glm::vec3 **m_normal**

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

- src/physics/impulse.h
- src/physics/impulse.cpp

5.104 ImpulseAccumulator Class Reference

Collaboration diagram for ImpulseAccumulator:



Public Member Functions

- void **clear** ()
- void **parse** (const std::list< Impulse > &impulses)
- void **dontImpulse** (const std::list< Voxel * > &voxels)
- std::list< Impulse > & **impulses** ()

Protected Member Functions

- void **parseCollision** (WorldObject *worldObject, const VoxelCollision &collision)

Protected Attributes

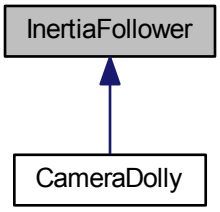
- std::map< const Voxel *, Impulse > **m_voxelImpulseMap**
- std::list< Impulse > **m_impulses**

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

- src/world/handler/impulseaccumulator.h
- src/world/handler/impulseaccumulator.cpp

5.105 InertiaFollower Class Reference

Inheritance diagram for InertiaFollower:



Public Member Functions

- **InertiaFollower** (float directionalInertia, float angularInertia)
- const glm::vec3 & **position** () const
- void **setPosition** (const glm::vec3 &position)
- const glm::quat & **orientation** () const
- void **setOrientation** (const glm::quat &orientation)
- void **follow** (const glm::vec3 &targetPosition, const glm::quat &targetOrientation, float deltaSec)

Protected Attributes

- glm::vec3 **m_position**
- float **m_directionalInertia**
- glm::quat **m_orientation**
- float **m_angularInertia**

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

- src/utils/inertiafollower.h
- src/utils/inertiafollower.cpp

5.106 InputConfigurator Class Reference

Public Member Functions

- **InputConfigurator** (std::vector< ActionKeyMapping * > *actions, SecondaryInputValues *secondaryInputValues, Property< float > *deadzone, HUD *hud)
- void **startConfiguration** (InputClass inputClass)
- bool **isConfiguring** ()
- void **update** ()
- void **setActions** (std::vector< ActionKeyMapping * > *actions)
- void **setSecondaryInputValues** (SecondaryInputValues *values)
- void **setLastInput** (InputMapping lastInput, InputClass inputClass)
- InputMapping **lastInput** (InputClass inputClass)

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

- src/ui/inputconfigurator.h
- src/ui/inputconfigurator.cpp

5.107 InputMapping Class Reference

Public Member Functions

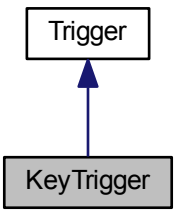
- **InputMapping** (InputType type, int index, float maxValue, float idleValue)
- InputType **type** ()
- int **index** ()
- float **maxValue** ()
- float **idleValue** ()

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

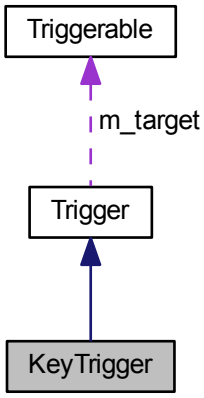
- src/input/inputmapping.h
- src/input/inputmapping.cpp

5.108 KeyTrigger Class Reference

Inheritance diagram for KeyTrigger:



Collaboration diagram for KeyTrigger:



Public Member Functions

- **KeyTrigger** (int glfwKey)
- int **key** () const
- void **setKey** (int glfwKey)
- virtual void **update** (float deltaSec) override

Protected Attributes

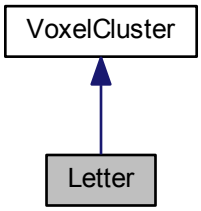
- int **m_glfwKey**
- int **m_lastState**

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

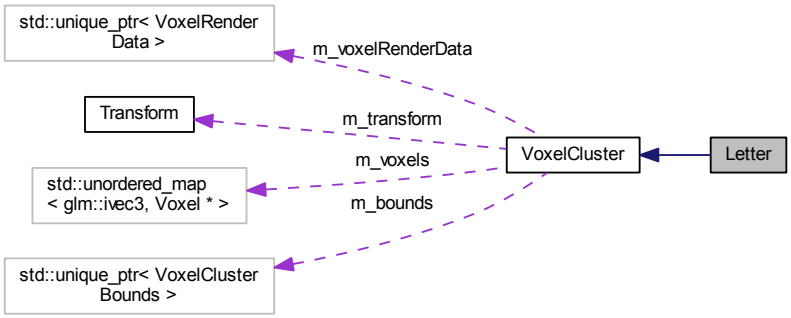
- src/utils/statemachine/keytrigger.h
- src/utils/statemachine/keytrigger.cpp

5.109 Letter Class Reference

Inheritance diagram for Letter:



Collaboration diagram for Letter:



Public Member Functions

- **Letter** (float scale=1.0)

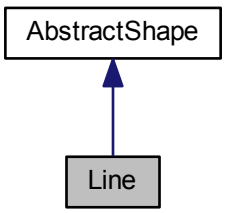
Additional Inherited Members

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

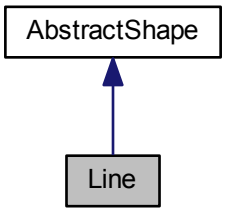
- src/ui/letter.h
- src/ui/letter.cpp

5.110 Line Class Reference

Inheritance diagram for Line:



Collaboration diagram for Line:



Public Member Functions

- **Line** (const glm::vec3 &a, const glm::vec3 &b)
- const glm::vec3 & **a** () const
- void **setA** (const glm::vec3 &a)
- const glm::vec3 & **b** () const
- void **setB** (const glm::vec3 &b)
- virtual bool **intersects** (const Sphere &sphere) const override
- virtual bool **nearTo** (const TAABB< int > &aabb) const override
- virtual bool **containedBy** (const TAABB< int > &aabb) const override

Protected Attributes

- glm::vec3 **m_a**
- glm::vec3 **m_b**

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

- src/geometry/line.h
- src/geometry/line.cpp

5.111 Math Class Reference

Static Public Member Functions

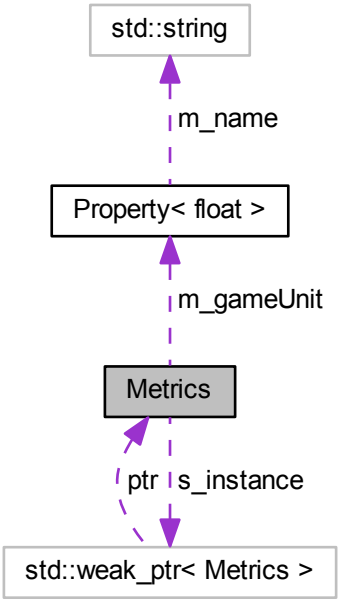
- static uint32_t **nextPowerOf2** (uint32_t n)

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

- src/utils/math.h
- src/utils/math.cpp

5.112 Metrics Class Reference

Collaboration diagram for Metrics:



Public Member Functions

- float **gameUnit** ()
- void **setGameUnit** (float gameUnit)
- float **toGameUnits** (float metre)
- float **toMetres** (float gameUnits)

Static Public Member Functions

- static std::shared_ptr< Metrics > **instance** ()

Protected Attributes

- Property< float > **m_gameUnit**

Static Protected Attributes

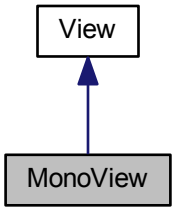
- static std::weak_ptr< Metrics > **s_instance**

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

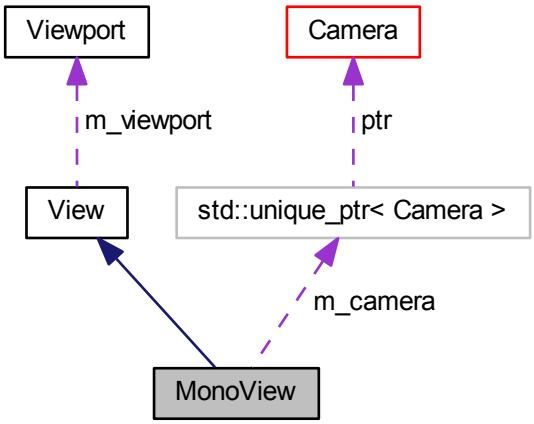
- src/utils/metrics.h
- src/utils/metrics.cpp

5.113 MonoView Class Reference

Inheritance diagram for MonoView:



Collaboration diagram for MonoView:



Public Member Functions

- **MonoView** (const Viewport &viewport)
- virtual void **setViewport** (const Viewport &viewport) override
- virtual float **fovy** () const override
- virtual float **zNear** () const override
- virtual float **aspectRatio** () const override
- virtual void **draw** (const Scene &scene, const CameraHead &cameraHead) override

Protected Attributes

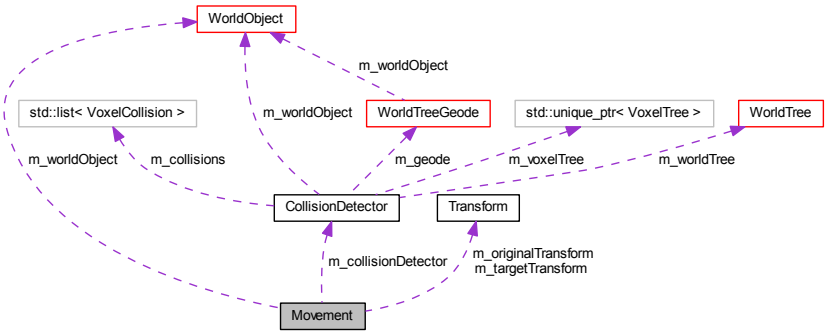
- std::unique_ptr< Camera > **m_camera**

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

- src/display/monoview.h
- src/display/monoview.cpp

5.114 Movement Class Reference

Collaboration diagram for Movement:



Public Member Functions

- **Movement** (WorldObject &worldObject, const Transform &originalTransform, const Transform &targetTransform)
- bool **perform** ()

Protected Member Functions

- bool **performSplitted** ()
- bool **performStepped** ()
- int **calculateStepCount** ()
- Transform **calculateStep** (int s, int stepCount) const

Protected Attributes

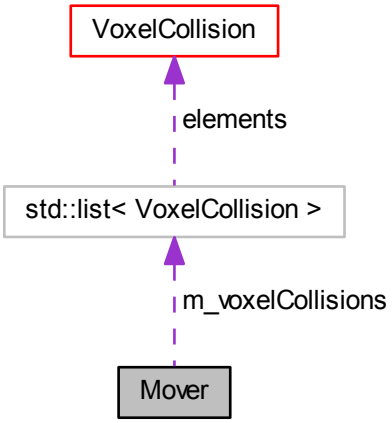
- WorldObject & **m_worldObject**
- CollisionDetector & **m_collisionDetector**
- Transform **m_originalTransform**
- Transform **m_targetTransform**
- float **m_distance**

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

- src/physics/movement.h
- src/physics/movement.cpp

5.115 Mover Class Reference

Collaboration diagram for Mover:



Public Member Functions

- void **moveWorldObjects** (float deltaSec)
- std::list< VoxelCollision > & **voxelCollisions** ()

Protected Attributes

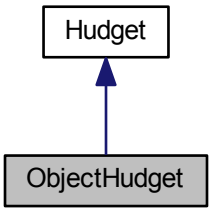
- std::list< VoxelCollision > **m_voxelCollisions**

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

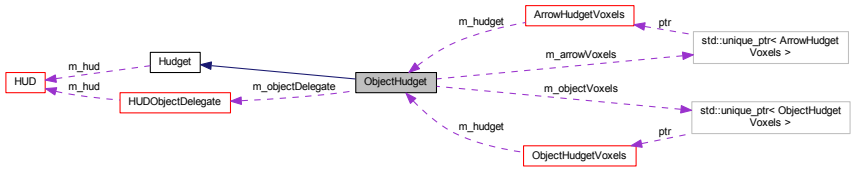
- src/world/handler/mover.h
- src/world/handler/mover.cpp

5.116 ObjectHudget Class Reference

Inheritance diagram for ObjectHudget:



Collaboration diagram for ObjectHudget:



Public Member Functions

- **ObjectHudget** (HUD ∗hud, HUDObjectDelegate ∗objectDelegate)
- virtual void **update** (float deltaSec) override
- virtual void **draw** () override
- virtual bool **isAt** (const Ray &ray) const override
- virtual void **onClick** (ClickType clickType) override
- HUDObjectDelegate ∗ **objectDelegate** ()

Protected Member Functions

- void **updateTargeted** ()
- bool **isInsideFov** ()
- glm::vec3 **closestPointInsideFov** ()
- void **calculateOpeningAngle** ()
- void **updateFov** ()

Protected Attributes

- HUDObjectDelegate ∗ **m_objectDelegate**
- std::unique_ptr
  < ObjectHudgetVoxels > **m_objectVoxels**
- std::unique_ptr
  < ArrowHudgetVoxels > **m_arrowVoxels**

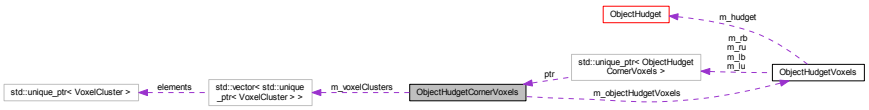
- bool **m_targeted**
- bool **m_insideFov**
- float **m_fovy**
- float **m_fovx**

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

- src/ui/hud/objecthudget.h
- src/ui/hud/objecthudget.cpp

5.117 ObjectHudgetCornerVoxels Class Reference

Collaboration diagram for ObjectHudgetCornerVoxels:



Public Member Functions

- **ObjectHudgetCornerVoxels** (ObjectHudgetVoxels ∗objectHudgetVoxels, const glm::ivec3 &baseOffset)
- const glm::vec3 & **position** () const
- const glm::quat & **orientation** () const
- void **update** (float deltaSec)
- void **draw** (int index)

Protected Member Functions

- void **addIndex** (int index, uint32_t color, float scale)

Protected Attributes

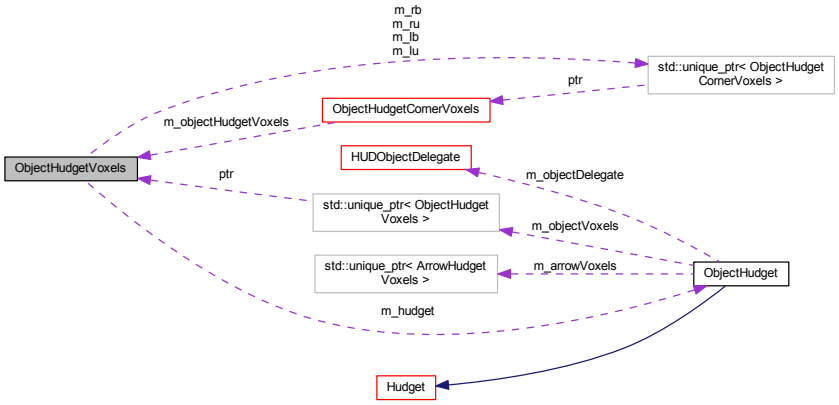
- ObjectHudgetVoxels ∗ **m_objectHudgetVoxels**
- glm::ivec3 **m_baseOffset**
- glm::vec3 **m_position**
- glm::quat **m_orientation**
- std::vector< std::unique_ptr < VoxelCluster > > **m_voxelClusters**

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

- src/ui/hud/objecthudgetcornervoxels.h
- src/ui/hud/objecthudgetcornervoxels.cpp

5.118 ObjectHudgetVoxels Class Reference

Collaboration diagram for ObjectHudgetVoxels:



Public Member Functions

- **ObjectHudgetVoxels** (ObjectHudget ∗hudget)
- ObjectHudget ∗ **hudget** ()
- void **setTargetHightlight** (bool targetHightlight)
- void **setRelationType** (FactionRelationType relationType)
- float **openingAngle** () const
- void **setOpeningAngle** (float openingAngle)
- void **update** (float deltaSec)
- void **draw** ()
- bool **isAt** (const Ray &ray) const

Protected Attributes

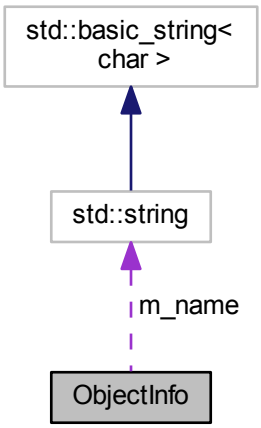
- ObjectHudget ∗ **m_hudget**
- std::unique_ptr < ObjectHudgetCornerVoxels > **m_lu**
- std::unique_ptr < ObjectHudgetCornerVoxels > **m_lb**
- std::unique_ptr < ObjectHudgetCornerVoxels > **m_ru**
- std::unique_ptr < ObjectHudgetCornerVoxels > **m_rb**
- float **m_openingAngle**
- bool **m_targetHightlight**
- FactionRelationType **m_relationType**

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

- src/ui/hud/objecthudgetvoxels.h
- src/ui/hud/objecthudgetvoxels.cpp

5.119 ObjectInfo Class Reference

Collaboration diagram for ObjectInfo:



Public Member Functions

- std::string **name** ()
- void **setName** (const std::string &name)
- bool **showOnHud** ()
- void **setShowOnHud** (bool show)
- bool **canLockOn** ()
- void **setCanLockOn** (bool canLockOn)

Protected Attributes

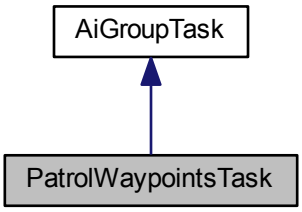
- std::string **m_name**
- bool **m_showOnHud**
- bool **m_canLockOn**

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

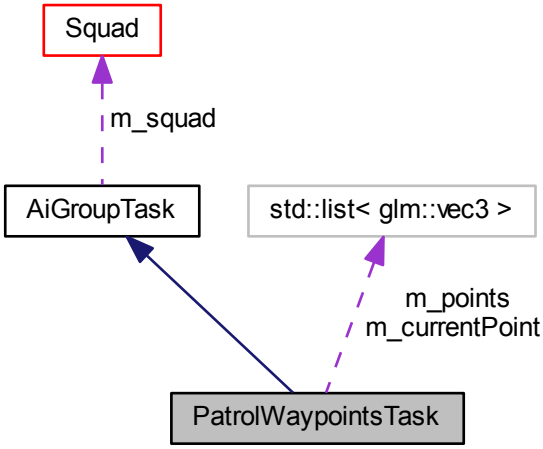
- src/ui/objectinfo.h
- src/ui/objectinfo.cpp

5.120 PatrolWaypointsTask Class Reference

Inheritance diagram for PatrolWaypointsTask:



Collaboration diagram for PatrolWaypointsTask:



Public Member Functions

- **PatrolWaypointsTask** (Squad &squad, std::list< glm::vec3 > points)
- virtual void **update** (float deltaSec) override

Protected Member Functions

- virtual void **onNewLeader** (Ship *leader) override
- virtual void **onMemberJoin** (Ship *member) override

Protected Attributes

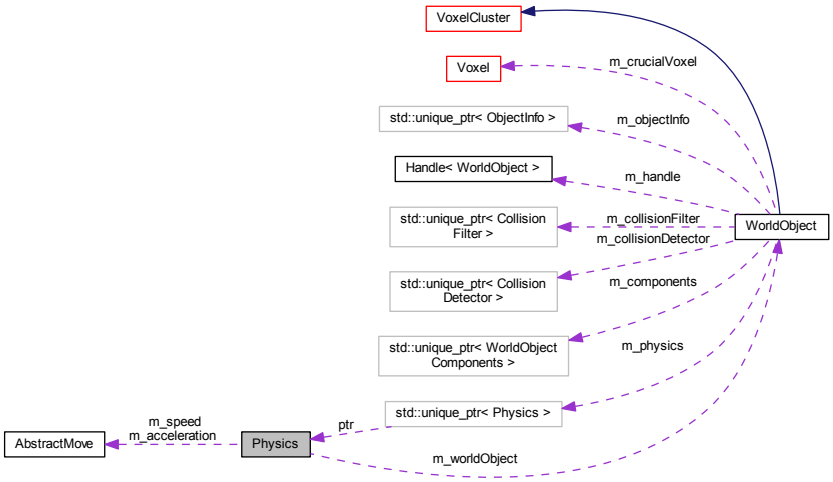
- std::shared_ptr< FlyToTask > **m_leaderFlyTask**
- std::list< glm::vec3 > **m_points**
- std::list< glm::vec3 >::iterator **m_currentPoint**

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

- src/ai/grouptasks/patrolwaypointstask.h
- src/ai/grouptasks/patrolwaypointstask.cpp

5.121 Physics Class Reference

Collaboration diagram for Physics:



Public Member Functions

- **Physics** (WorldObject &worldObject, float scale)
- float **directionalDampening** () const
- void **setDirectionalDampening** (float directionalDampening)
- float **angularDampening** () const
- void **setAngularDampening** (float angularDampening)
- const Speed & **speed** () const
- void **setSpeed** (const Speed &speed)
- const Acceleration & **acceleration** () const
- void **setAcceleration** (const Acceleration &acceleration)
- float **mass** () const
- const Transform **projectedTransformIn** (float deltaSec)
- std::list< VoxelCollision > & **move** (float deltaSec)
- void **addVoxel** (Voxel *voxel)
- void **removeVoxel** (Voxel *voxel)

Protected Member Functions

- void **voxelChanged** (Voxel ∗voxel, bool isAdd)
- virtual void **updateSpeed** (float deltaSec)

Protected Attributes

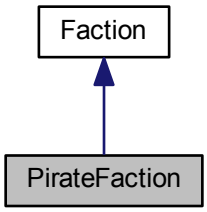
- WorldObject & **m_worldObject**
- Speed **m_speed**
- Acceleration **m_acceleration**
- float **m_directionalDampening**
- float **m_angularDampening**
- float **m_mass**
- glm::vec3 **m_accumulatedMassVec**
- float **m_massScaleFactor**

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

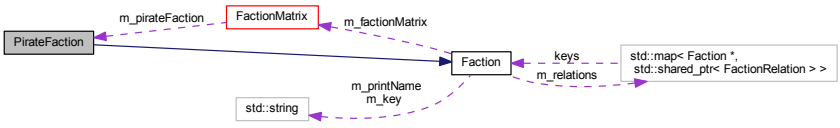
- src/physics/physics.h
- src/physics/physics.cpp

5.122 PirateFaction Class Reference

Inheritance diagram for PirateFaction:



Collaboration diagram for PirateFaction:



Public Member Functions

- **PirateFaction** (FactionMatrix ∗factionMatrix)

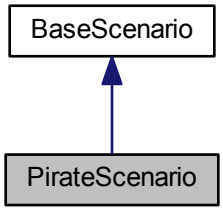
Additional Inherited Members

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

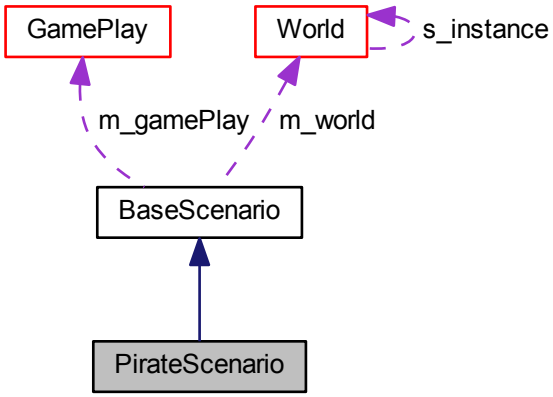
- src/factions/piratefaction.h
- src/factions/piratefaction.cpp

5.123 PirateScenario Class Reference

Inheritance diagram for PirateScenario:



Collaboration diagram for PirateScenario:



Public Member Functions

- **PirateScenario** (GamePlay *inGame)

Protected Member Functions

- virtual void **populateWorld** () override
- void **createArmada** ()

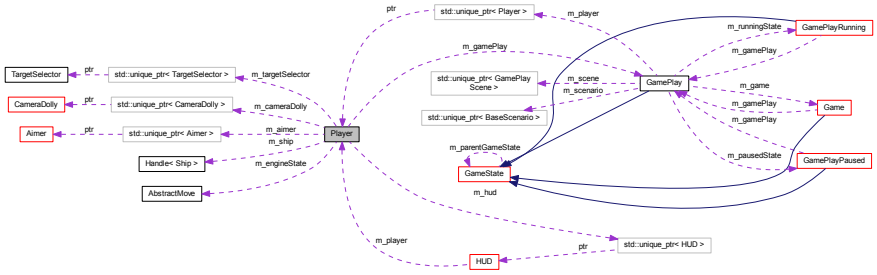
Additional Inherited Members

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

- src/scenarios/piratescenario.h
- src/scenarios/piratescenario.cpp

5.124 Player Class Reference

Collaboration diagram for Player:



Public Member Functions

- **Player** (GamePlay ∗gamePlay)
- Ship ∗ **ship** ()
- void **setShip** (Ship ∗ship)
- void **update** (float deltaSec)
- CameraHead & **cameraHead** ()
- HUD & **hud** ()
- void **fire** ()
- void **move** (const glm::vec3 &vec)
- void **rotate** (const glm::vec3 &euler)
- void **selectTarget** (bool next)
- void **setTarget** (WorldObject ∗target)

Protected Attributes

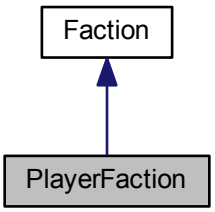
- GamePlay ∗ **m_gamePlay**
- Handle< Ship > **m_ship**
- std::unique_ptr< CameraDolly > **m_cameraDolly**
- std::unique_ptr< HUD > **m_hud**
- std::unique_ptr< TargetSelector > **m_targetSelector**
- std::unique_ptr< Aimer > **m_aimer**
- EngineState **m_engineState**

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

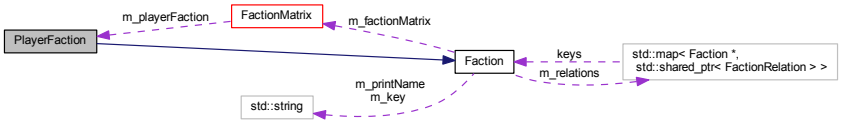
- src/player.h
- src/player.cpp

5.125 PlayerFaction Class Reference

Inheritance diagram for PlayerFaction:



Collaboration diagram for PlayerFaction:



Public Member Functions

- **PlayerFaction** (FactionMatrix *factionMatrix)

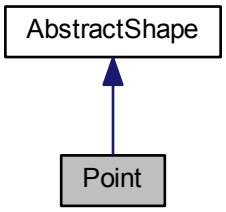
Additional Inherited Members

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

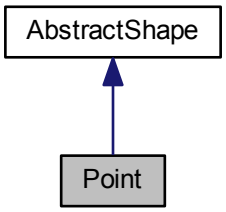
- src/factions/playerfaction.h
- src/factions/playerfaction.cpp

5.126 Point Class Reference

Inheritance diagram for Point:



Collaboration diagram for Point:



Public Member Functions

- **Point** (const glm::vec3 &pos)
- const glm::vec3 & **position** () const
- void **setPosition** (const glm::vec3 &pos)
- virtual bool **intersects** (const Sphere &sphere) const override
- virtual bool **nearTo** (const TAABB< int > &aabb) const override
- virtual bool **containedBy** (const TAABB< int > &aabb) const override

Protected Attributes

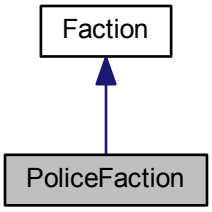
- glm::vec3 **m_position**

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

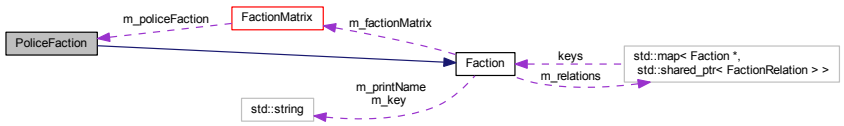
- src/geometry/point.h
- src/geometry/point.cpp

5.127 PoliceFaction Class Reference

Inheritance diagram for PoliceFaction:



Collaboration diagram for PoliceFaction:



Public Member Functions

- **PoliceFaction** (FactionMatrix *factionMatrix)

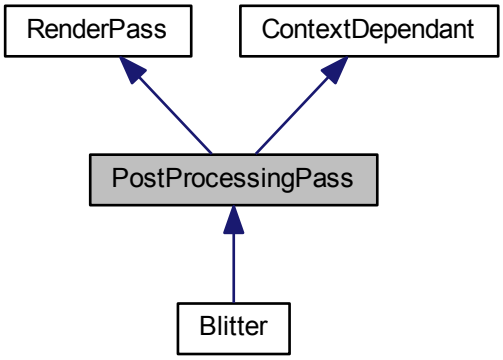
Additional Inherited Members

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

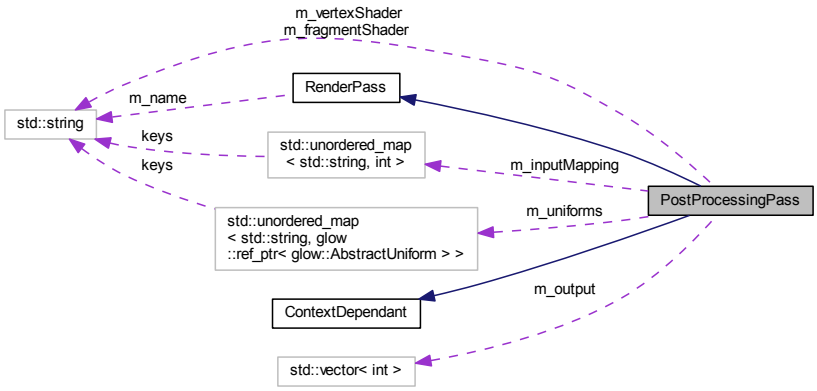
- src/factions/policefaction.h
- src/factions/policefaction.cpp

5.128 PostProcessingPass Class Reference

Inheritance diagram for PostProcessingPass:



Collaboration diagram for PostProcessingPass:



Public Member Functions

- **PostProcessingPass** (const std::string &name, std::shared_ptr< ScreenQuad > quad)
- virtual void **apply** (FrameBuffer &frameBuffer, const RenderMetaData &metadata) override
- void **beforeDraw** (FrameBuffer &frameBuffer)
- void **setInputMapping** (const std::unordered_map< std::string, int > &inputMapping)
- void **setOutput** (const std::vector< int > &output)
- void **setFragmentShader** (const std::string &output)
- template<typename T >
  void **setUniform** (const std::string &name, const T &value)
- bool **isEnabled** ()
- void **setEnabled** (bool enabled)

Protected Member Functions

- void **initialize** ()
- void **restoreUniforms** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

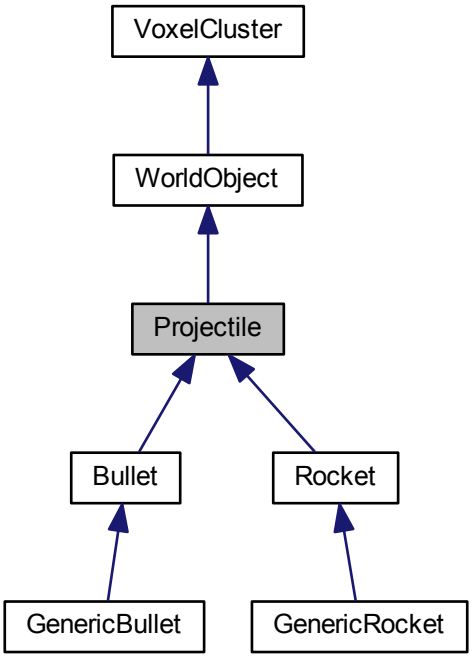
- std::unordered_map
  < std::string, glow::ref_ptr
  < glow::AbstractUniform > > **m_uniforms**
- glow::ref_ptr< glow::Program > **m_program**
- std::shared_ptr< ScreenQuad > **m_quad**
- std::unordered_map
  < std::string, int > **m_inputMapping**
- std::vector< int > **m_output**
- std::string **m_fragmentShader**
- std::string **m_vertexShader**
- bool **m_enabled**

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

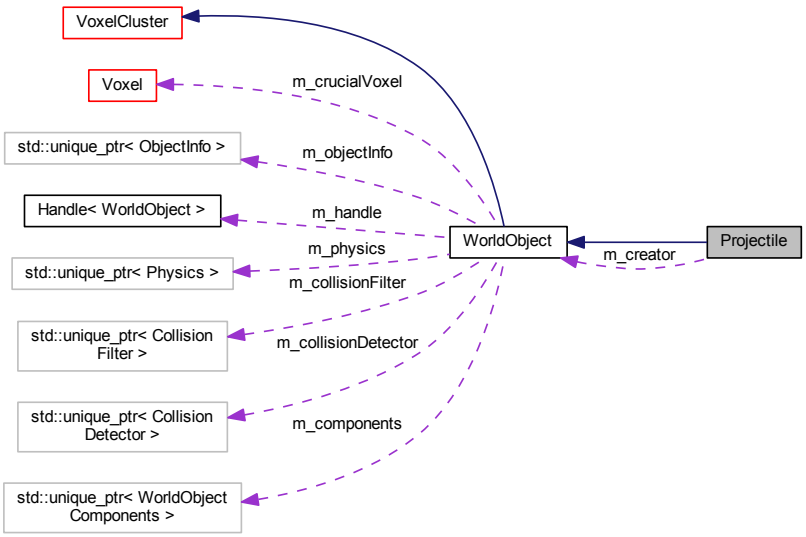
- src/display/rendering/postprocessingpass.h
- src/display/rendering/postprocessingpass.cpp
- src/display/rendering/postprocessingpass.inl

5.129 Projectile Class Reference

Inheritance diagram for Projectile:



Collaboration diagram for Projectile:



Public Member Functions

- virtual const SoundProperties & **hitSound** () const =0
- WorldObject * **creator** ()
- void **setCreator** (WorldObject *creator)
- float **lifetime** () const
- void **setLifetime** (float lifetime)
- virtual void **update** (float deltaSec) override
- virtual void **onCollision** () override
- virtual void **onSpawnFail** () override

Protected Member Functions

- virtual void **onLifetimeOver** ()
- virtual void **spawnExplosion** ()=0

Protected Attributes

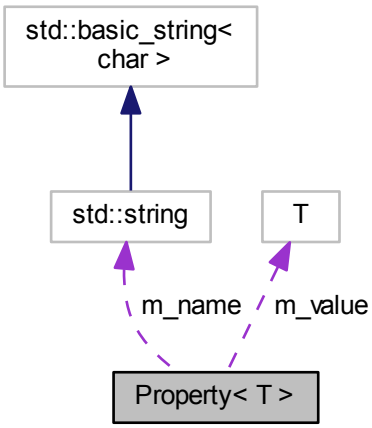
- WorldObject * **m_creator**
- float **m_lifetime**

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

- src/equipment/weapons/projectile.h
- src/equipment/weapons/projectile.cpp

5.130 Property< T > Class Template Reference

Collaboration diagram for Property< T >:



Public Member Functions

- **Property** (const std::string &name)
- **Property** (const std::string &name, const T &defaultValue)
- const std::string & **name** () const
- T **get** () const
- void **set** (const T &value)
- **operator T** () const
- T * **operator->** ()

Static Public Member Functions

- static T **get** (const std::string &name)
- static T **get** (const std::string &name, const T &defaultvalue)

Protected Attributes

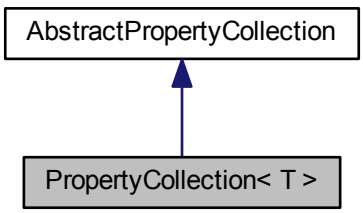
- std::string **m_name**
- T **m_value**

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

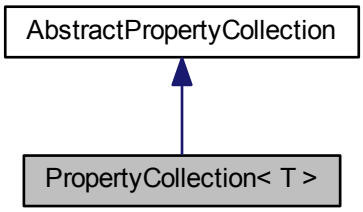
- src/property/property.h
- src/property/property.inl

5.131 PropertyCollection< T > Class Template Reference

Inheritance diagram for PropertyCollection< T >:



Collaboration diagram for PropertyCollection< T >:



Public Member Functions

- **PropertyCollection** (regexns::regex regex, std::function< T(const std::string &)> converter)
- void **registerProperty** (Property< T > *prop)
- void **registerProperty** (Property< T > *prop, const T &defaultValue)
- void **unregisterProperty** (Property< T > *prop)
- virtual bool **update** (const std::string &key, const std::string &svalue) override
- void **set** (const std::string &key, const T &value)
- T **get** (const std::string &name) const
- T **get** (const std::string &name, const T &defaultValue) const

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

- src/property/propertycollection.h
- src/property/propertycollection.inl

5.132 PropertyConverter Class Reference

Static Public Member Functions

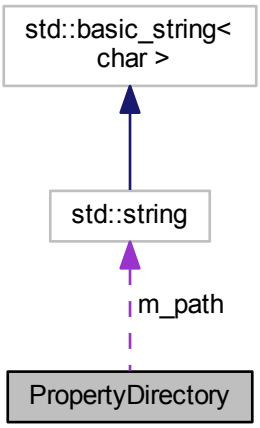
- static float **floatConverter** (const std::string &s)
- static glm::vec2 **vec2Converter** (const std::string &s)
- static glm::vec3 **vec3Converter** (const std::string &s)
- static glm::vec4 **vec4Converter** (const std::string &s)
- static std::list< std::string > **listConverter** (const std::string &s)
- static InputMapping **inputMappingConverter** (const std::string &s)

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

- src/property/propertyconverter.h
- src/property/propertyconverter.cpp

5.133 PropertyDirectory Class Reference

Collaboration diagram for PropertyDirectory:



Public Member Functions

- **PropertyDirectory** (const std::string &path)
- void **read** ()

Protected Attributes

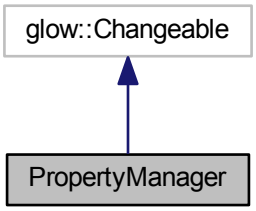
- std::string **m_path**

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

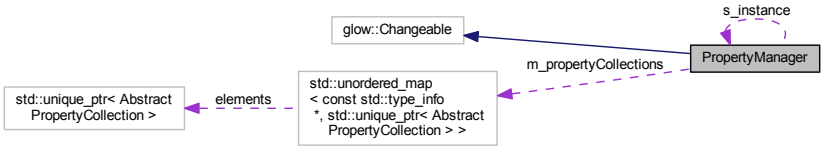
- src/property/propertydirectory.h
- src/property/propertydirectory.cpp

5.134 PropertyManager Class Reference

Inheritance diagram for PropertyManager:



Collaboration diagram for PropertyManager:



Public Member Functions

- void **load** (const std::string &file, const std::string &prefix="")
- template<typename T >
  void **registerProperty** (Property< T > *prop)
- template<typename T >
  void **registerProperty** (Property< T > *prop, const T &defaultValue)
- template<typename T >
  void **unregisterProperty** (Property< T > *prop)
- template<typename T >
  T **get** (const std::string &name)
- template<typename T >
  T **get** (const std::string &name, const T &defaultValue)

Static Public Member Functions

- static PropertyManager * **instance** ()
- static void **reset** ()

Protected Member Functions

- template<typename T >
  PropertyCollection< T > * **getPropertyCollection** ()
- template<typename T >
  void **addPropertyCollection** (PropertyCollection< T > *collection)

Protected Attributes

- std::unordered_map< const std::type_info *, std::unique_ptr< AbstractPropertyCollection > > **m_propertyCollections**

Static Protected Attributes

- static PropertyManager * **s_instance**

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

- src/property/propertymanager.h
- src/property/propertymanager.cpp
- src/property/propertymanager.inl

5.135 RandBool Class Reference

Static Public Member Functions

- static bool **rand** (float trueProbability)

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

- src/utils/randbool.h
- src/utils/rand.cpp

5.136 RandFloat Class Reference

Static Public Member Functions

- static float **rand** (float from, float to)
- static float **randomize** (float value, float randomization)

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

- src/utils/randfloat.h
- src/utils/rand.cpp

5.137 RandVec3 Class Reference

Static Public Member Functions

- static glm::vec3 **rand** (float from, float to)
- static glm::vec3 **randUnitVec** ()

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

- src/utils/randvec.h
- src/utils/rand.cpp

5.138 Range Class Reference

Public Member Functions

- **Range** (float min, float max)
- float **min** () const
- void **setMin** (float min)
- float **max** () const
- void **setMax** (float max)
- float **clamp** (float value)

Protected Attributes

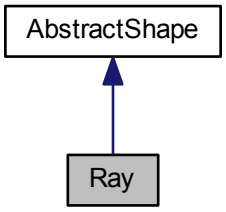
- float **m_min**
- float **m_max**

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

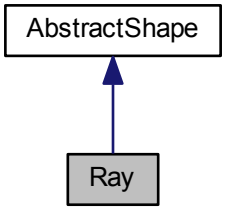
- src/geometry/range.h
- src/geometry/range.cpp

5.139 Ray Class Reference

Inheritance diagram for Ray:



Collaboration diagram for Ray:



Public Member Functions

- **Ray** (const glm::vec3 &origin, const glm::vec3 &direction)
- const glm::vec3 & **origin** () const
- void **setOrigin** (const glm::vec3 &origin)
- const glm::vec3 & **direction** () const
- void **setDirection** (const glm::vec3 &direction)
- virtual bool **intersects** (const Sphere &sphere) const override
- virtual bool **nearTo** (const TAABB< int > &aabb) const override
- virtual bool **containedBy** (const TAABB< int > &aabb) const override

Static Public Member Functions

- static Ray **fromTo** (const glm::vec3 &from, const glm::vec3 &to)

Protected Attributes

- glm::vec3 **m_origin**
- glm::vec3 **m_direction**

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

- src/geometry/ray.h
- src/geometry/ray.cpp

5.140 RenderMetaData Class Reference

Public Member Functions

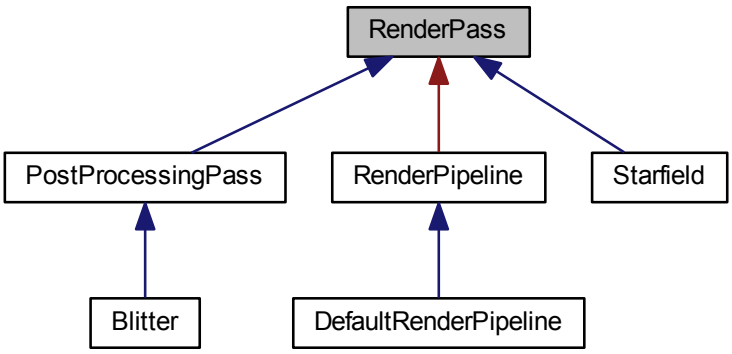
- **RenderMetaData** (const Camera &camera, EyeSide eyeside)
- const Camera & **camera** () const
- EyeSide **eyeside** () const

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

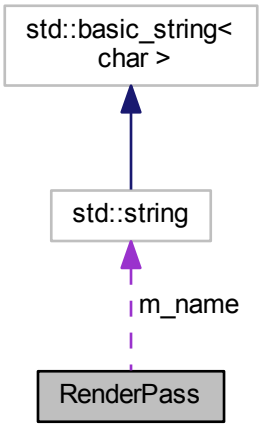
- src/display/rendering/rendermetadata.h
- src/display/rendering/rendermetadata.cpp

5.141 RenderPass Class Reference

Inheritance diagram for RenderPass:



Collaboration diagram for RenderPass:



Public Member Functions

- **RenderPass** (const std::string &name)
- virtual void **apply** (FrameBuffer &frameBuffer, const RenderMetaData &metadata)=0
- const std::string & **name** () const

Protected Attributes

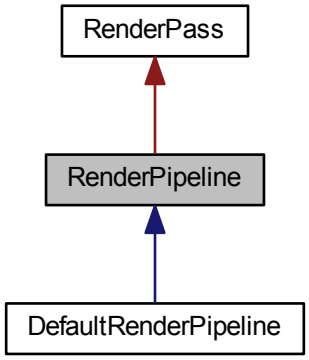
- std::string **m_name**

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

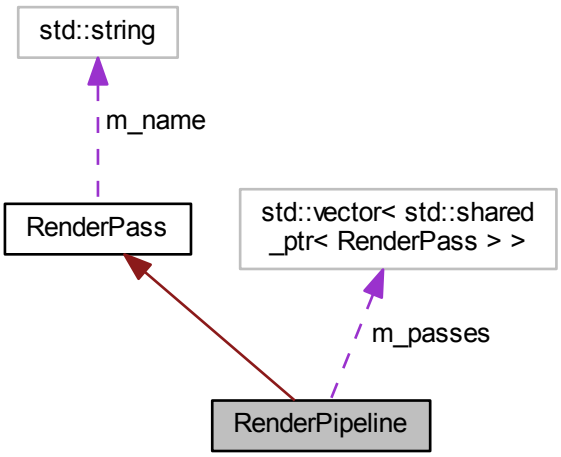
- src/display/rendering/renderpass.h
- src/display/rendering/renderpass.cpp

5.142 RenderPipeline Class Reference

Inheritance diagram for RenderPipeline:



Collaboration diagram for RenderPipeline:



Public Member Functions

- **RenderPipeline** (const std::string &name)

- virtual void **apply** (FrameBuffer &frameBuffer, const RenderMetaData &metadata) override
- virtual void **setup** ()=0
- virtual int **bufferCount** ()=0
- void **add** (std::shared_ptr< RenderPass > pass, int index=-1)
- void **insertAfter** (std::shared_ptr< RenderPass > pass, const std::string &after)

Static Public Member Functions

- static RenderPipeline * **getDefault** ()

Protected Attributes

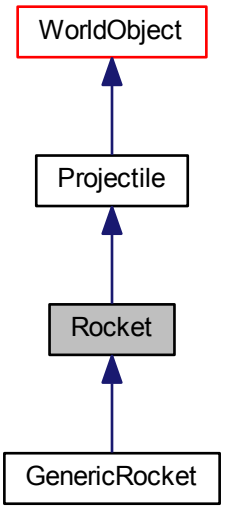
- std::vector< std::shared_ptr < RenderPass > > **m_passes**
- bool **m_initialized**

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

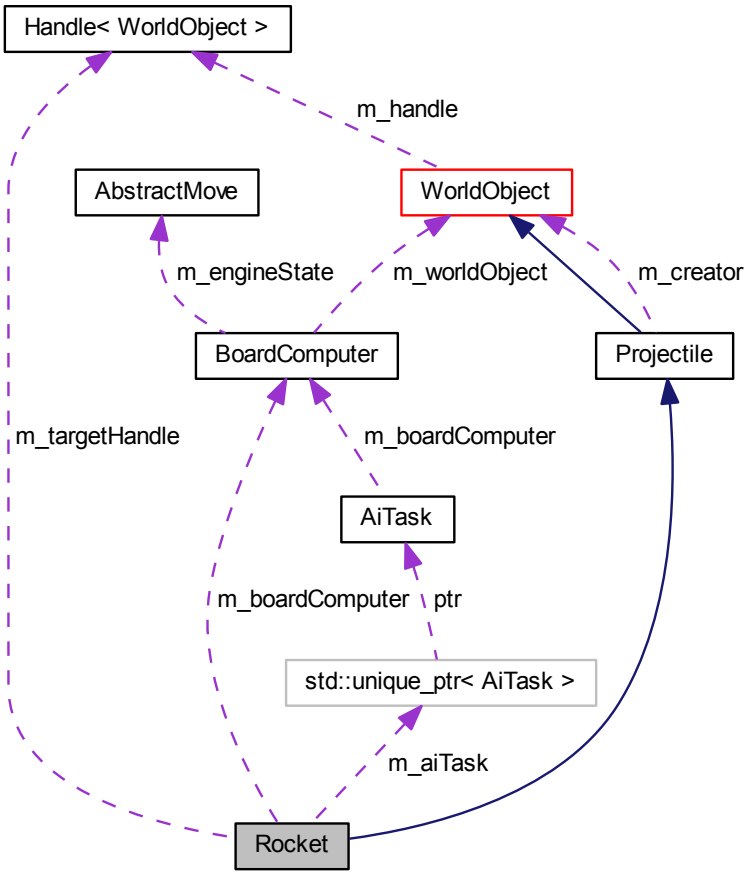
- src/display/rendering/renderpipeline.h
- src/display/rendering/renderpipeline.cpp

5.143 Rocket Class Reference

Inheritance diagram for Rocket:



Collaboration diagram for Rocket:



Public Member Functions

- virtual WorldObjectType **objectType** () const override
- WorldObject * **target** ()
- void **setTarget** (WorldObject *targetObject)
- virtual void **update** (float deltaSec) override

Protected Attributes

- Handle< WorldObject > **m_targetHandle**
- BoardComputer **m_boardComputer**
- std::unique_ptr< AiTask > **m_aiTask**

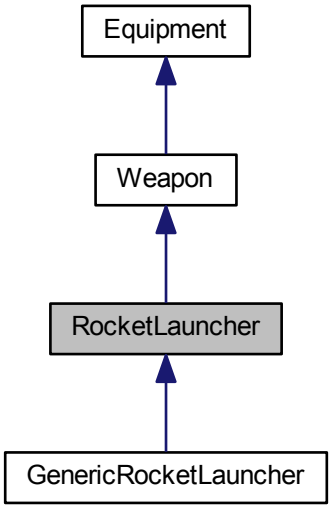
Additional Inherited Members

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

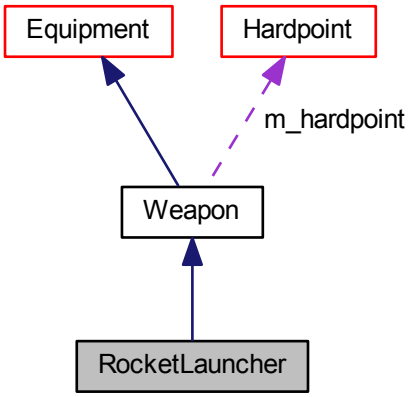
- src/equipment/weapons/rocket.h
- src/equipment/weapons/rocket.cpp

5.144 RocketLauncher Class Reference

Inheritance diagram for RocketLauncher:



Collaboration diagram for RocketLauncher:



Public Member Functions

- **RocketLauncher** (const std::string &equipmentKey)
- virtual void **fireAtObject** (WorldObject *target)
- virtual void **update** (float deltaSec) override

Protected Member Functions

- virtual Rocket * **createRocket** ()=0
- void **setupRocket** (Rocket *rocket, WorldObject *target)

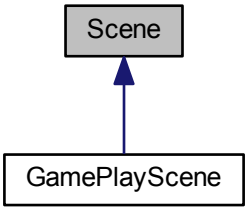
Additional Inherited Members

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

- src/equipment/weapons/rocketlauncher.h
- src/equipment/weapons/rocketlauncher.cpp

5.145 Scene Class Reference

Inheritance diagram for Scene:



Public Member Functions

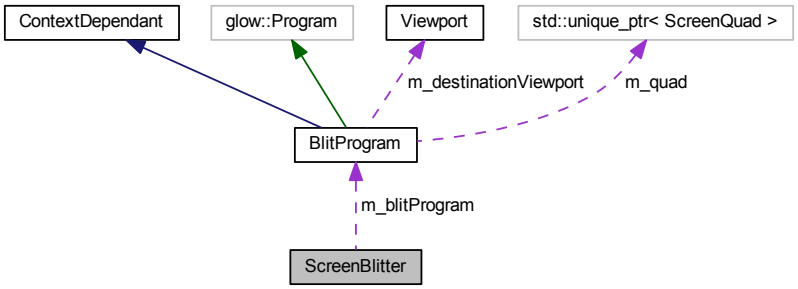
- virtual void **draw** (const Camera &camera, glow::FrameBufferObject *destination, EyeSide side=EyeSide::-None) const =0
- virtual void **update** (float deltaSec)=0

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

- src/display/scene.h

5.146 ScreenBlitter Class Reference

Collaboration diagram for ScreenBlitter:



Public Member Functions

- void **setProgram** (BlitProgram &blitProgram)
- void **blit** (FrameBuffer &source, const Viewport &viewport)

Protected Attributes

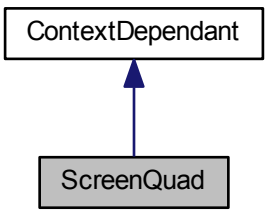
- BlitProgram * **m_blitProgram**

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

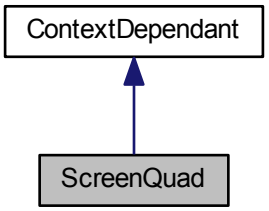
- src/display/screenblitter.h
- src/display/screenblitter.cpp

5.147 ScreenQuad Class Reference

Inheritance diagram for ScreenQuad:



Collaboration diagram for ScreenQuad:



Public Member Functions

- void **draw** ()

Static Public Attributes

- static const int **VERTEX_ATTRIBUTE_LOCATION** = 0

Protected Member Functions

- void **initialize** ()
- void **beforeContextDestroy** () override
- void **afterContextRebuild** () override

Protected Attributes

- glow::ref_ptr
  < glow::VertexArrayObject > **m_vertexArrayObject**
- glow::ref_ptr< glow::Buffer > **m_vertexBuffer**

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

- src/display/rendering/screenquad.h
- src/display/rendering/screenquad.cpp

5.148 SecondaryInputValues Struct Reference

Public Attributes

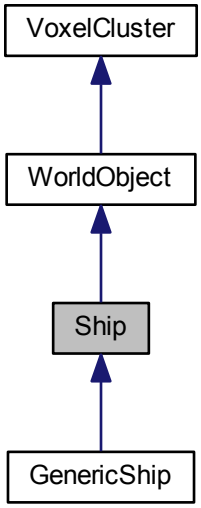
- int **buttonCnt**
- int **axisCnt**
- const unsigned char * **buttonValues**
- const float * **axisValues**

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

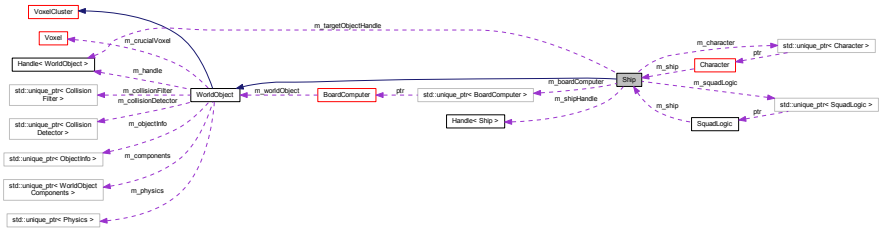
- src/ui/actionkeymapping.h
- src/gamestate/gameplay/running/gameplayrunninginput.cpp

5.149 Ship Class Reference

Inheritance diagram for Ship:



Collaboration diagram for Ship:



Public Member Functions

- virtual WorldObjectType **objectType** () const override
- virtual void **update** (float deltaSec) override
- Handle< Ship > **shipHandle** ()
- void **setTargetObject** (WorldObject *target)
- WorldObject * **targetObject** ()
- BoardComputer * **boardComputer** ()
- SquadLogic * **squadLogic** ()
- void **setCharacter** (Character *character)
- Character * **character** ()

Protected Member Functions

- **Ship** (CollisionFilter *collisionFilter)
- void **updateEnginePosition** ()

Protected Attributes

- std::unique_ptr< Character > **m_character**
- std::unique_ptr< BoardComputer > **m_boardComputer**
- std::unique_ptr< SquadLogic > **m_squadLogic**
- Handle< Ship > **m_shipHandle**
- Handle< WorldObject > **m_targetObjectHandle**

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

- src/worldobject/ship.h
- src/worldobject/ship.cpp

5.150 SimpleWayfind Class Reference

Static Public Member Functions

- static glm::vec3 **calculateTravelPoint** (WorldObject &object, glm::vec3 targetPoint)

Static Protected Member Functions

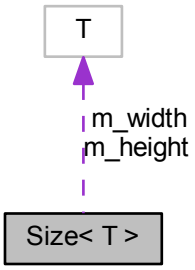
- static glm::vec3 **calculateEvasionDirectionFor** (WorldObject &self, WorldObject &obstacle, const glm::vec3 &targetPoint)
- static glm::vec3 **calculateEvasionPointFor** (WorldObject &self, WorldObject &obstacle, const glm::vec3 &targetPoint)

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

- src/utils/simplewayfind.h
- src/utils/simplewayfind.cpp

5.151 Size< T > Class Template Reference

Collaboration diagram for Size< T >:



Public Member Functions

- **Size** (T width, T height)
- T **width** () const
- void **setWidth** (T width)
- T **height** () const
- void **setHeight** (T height)

Protected Attributes

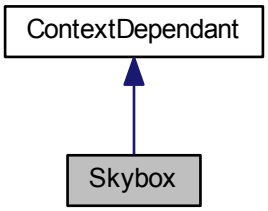
- T **m_width**
- T **m_height**

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

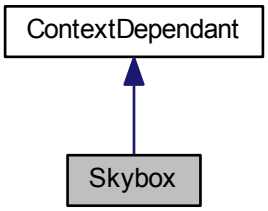
- src/geometry/size.h
- src/geometry/size.inl

5.152 Skybox Class Reference

Inheritance diagram for Skybox:



Collaboration diagram for Skybox:



Public Member Functions

- void **draw** (const Camera &camera)

Protected Member Functions

- void **initialize** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

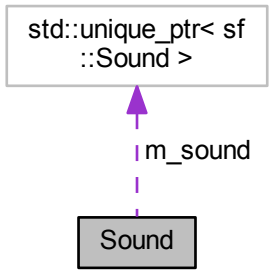
- glow::ref_ptr< glow::Texture > **m_texture**
- glow::ref_ptr< glow::Program > **m_shaderProgram**
- glow::ref_ptr
  < glow::VertexArrayObject > **m_vertexArrayObject**
- glow::ref_ptr< glow::Buffer > **m_vertexBuffer**

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

- src/skybox.h
- src/skybox.cpp

5.153 Sound Class Reference

Collaboration diagram for Sound:



Public Types

- enum **Status** { **Paused**, **Playing**, **Stopped**, **Disabled** }

Public Member Functions

- **Sound** (const sf::SoundBuffer &sound)
- Status **status** ()
- void **play** ()
- void **stop** ()
- void **pause** ()
- Sound & **setPosition** (const glm::vec3 &position)
- Sound & **setVolume** (float volume)
- Sound & **setAttenuation** (float attenuation)
- Sound & **setLooping** (bool loop)
- Sound & **setRelativeToListener** (bool relative)
- Sound & **setMinDistance** (float distance)

Protected Attributes

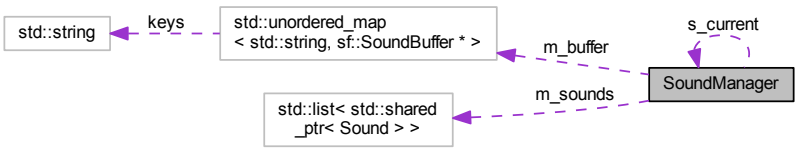
- std::unique_ptr< sf::Sound > **m_sound**

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

- src/sound/sound.h
- src/sound/sound.cpp

5.154 SoundManager Class Reference

Collaboration diagram for SoundManager:



Public Member Functions

- void **setListener** (const glm::vec3 &position, const glm::quat &orientation)
- std::shared_ptr< Sound > **create** (std::string soundFile)
- std::shared_ptr< Sound > **play** (std::string soundFile, const glm::vec3 &position, bool relative=false)
- std::shared_ptr< Sound > **play** (const SoundProperties &soundProperties, const glm::vec3 &position, bool relative=false)
- void **activate** ()
- void **deactivate** ()

Static Public Member Functions

- static SoundManager * **current** ()

Protected Member Functions

- sf::SoundBuffer * **obtain** (std::string soundFile)
- void **cleanUp** ()

Protected Attributes

- std::unordered_map
  < std::string, sf::SoundBuffer * > **m_buffer**
- std::list< std::shared_ptr
  < Sound > > **m_sounds**
- int **m_nextCleanup**

Static Protected Attributes

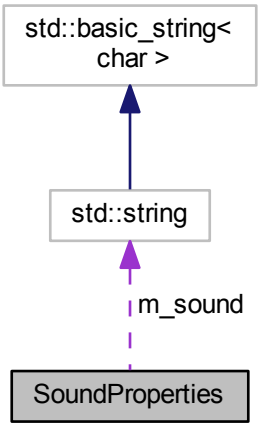
- static SoundManager * **s_current**

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

- src/sound/soundmanager.h
- src/sound/soundmanager.cpp

5.155 SoundProperties Class Reference

Collaboration diagram for SoundProperties:



Public Member Functions

- **SoundProperties** (const std::string &sound, float volume, float attenuation, bool repeating)
- const std::string & **sound** () const
- const float **volume** () const
- const float **attenuation** () const
- const bool **looping** () const

Static Public Member Functions

- static SoundProperties **fromProperties** (const std::string &prefix)

Protected Attributes

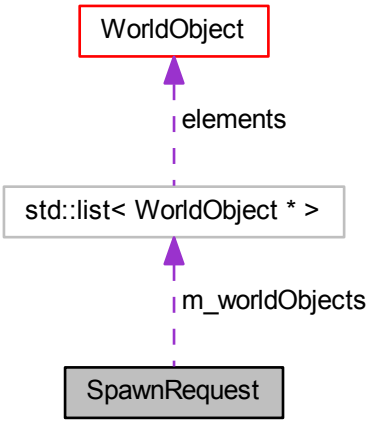
- std::string **m_sound**
- float **m_volume**
- float **m_attenuation**
- bool **m_looping**

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

- src/sound/soundproperties.h
- src/sound/soundproperties.cpp

5.156 SpawnRequest Class Reference

Collaboration diagram for SpawnRequest:



Public Member Functions

- **SpawnRequest** (WorldObject *worldObject, bool deleteOnRejection=true)
- **SpawnRequest** (const std::list< WorldObject * > &worldObjects, bool deleteOnRejection=true)
- std::list< WorldObject * > & **worldObjects** ()
- bool **deleteOnRejection** () const

Protected Attributes

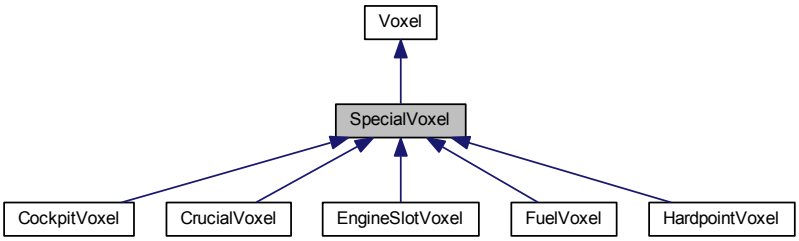
- std::list< WorldObject * > **m_worldObjects**
- bool **m_deleteOnRejection**

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

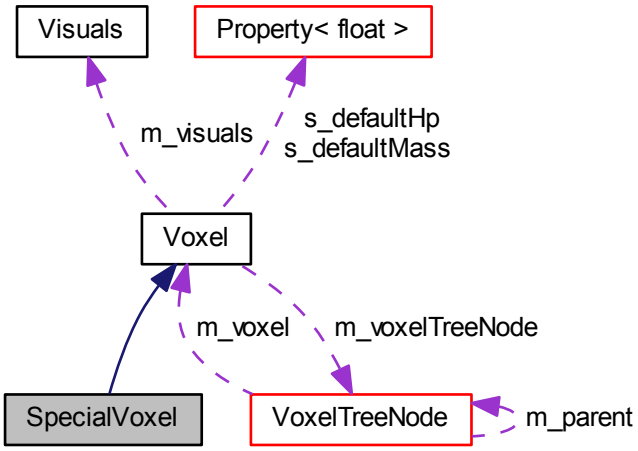
- src/world/spawnrequest.h
- src/world/spawnrequest.cpp

5.157 SpecialVoxel Class Reference

Inheritance diagram for SpecialVoxel:



Collaboration diagram for SpecialVoxel:



Public Member Functions

- **SpecialVoxel** (const glm::ivec3 &gridCell, int index, uint32_t color, float mass, float hp)
- int **index** () const

Protected Attributes

- int **m_index**

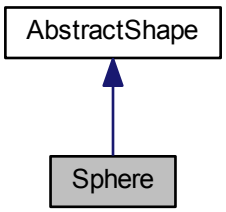
Additional Inherited Members

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

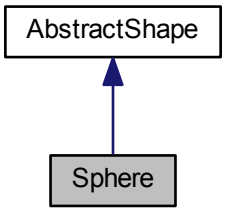
- src/voxel/specialvoxel.h
- src/voxel/specialvoxel.cpp

5.158 Sphere Class Reference

Inheritance diagram for Sphere:



Collaboration diagram for Sphere:



Public Member Functions

- **Sphere** (const glm::vec3 &position, float radius)
- float **radius** () const
- void **setRadius** (float radius)
- const glm::vec3 & **position** () const
- void **setPosition** (const glm::vec3 &position)
- bool **contains** (const Sphere &other) const
- virtual bool **intersects** (const Sphere &other) const override
- virtual bool **nearTo** (const TAABB< int > &aabb) const override
- virtual bool **containedBy** (const TAABB< int > &aabb) const override

Static Public Member Functions

- template<typename T >
  static Sphere **containing** (const TAABB< T > &aabb)

Protected Attributes

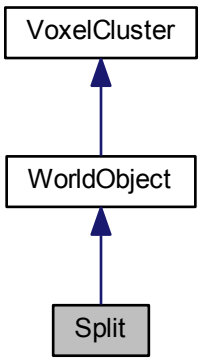
- glm::vec3 **m_position**
- float **m_radius**

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

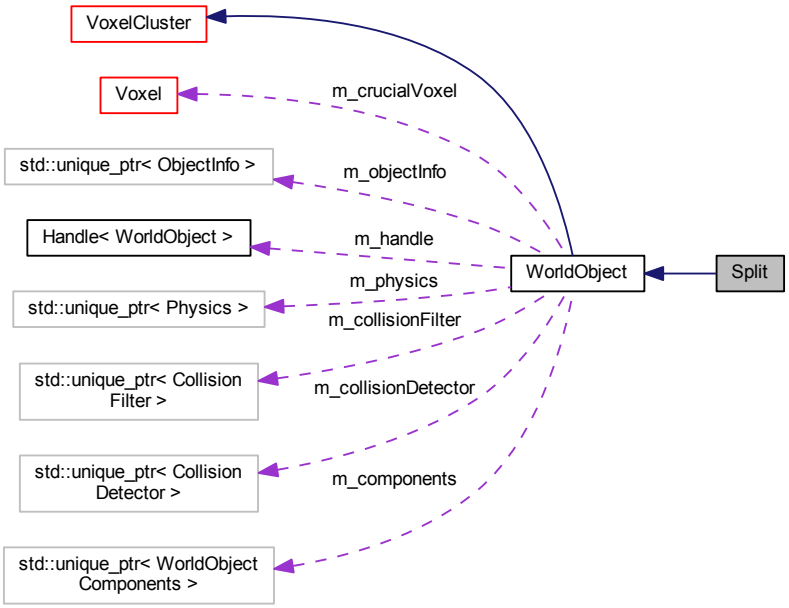
- src/geometry/sphere.h
- src/geometry/sphere.cpp
- src/geometry/sphere.inl

5.159 Split Class Reference

Inheritance diagram for Split:



Collaboration diagram for Split:



Public Member Functions

- **Split** (const Transform &transform)

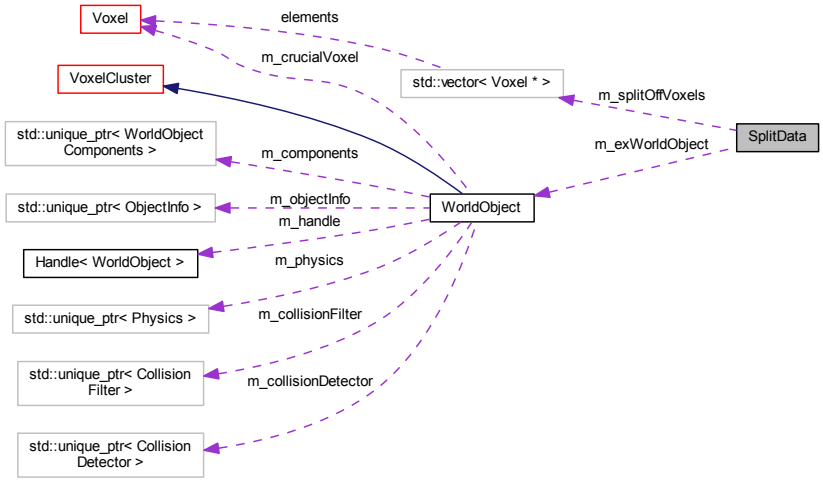
Additional Inherited Members

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

- src/worldobject/split.h
- src/worldobject/split.cpp

5.160 SplitData Class Reference

Collaboration diagram for SplitData:



Public Member Functions

- **SplitData** (WorldObject *worldObject)
- void **addVoxel** (Voxel *voxel)
- WorldObject * **exWorldObject** ()
- std::vector< Voxel * > **splitOffVoxels** ()
- glm::ivec3 **llf** ()

Protected Attributes

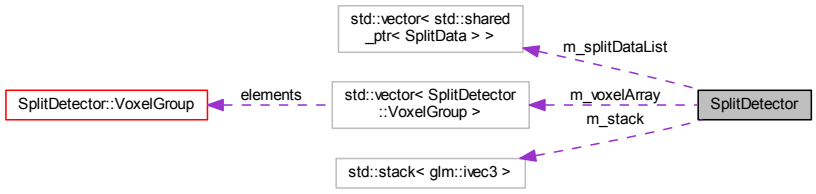
- WorldObject * **m_exWorldObject**
- std::vector< Voxel * > **m_splitOffVoxels**
- glm::ivec3 **m_llf**

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

- src/world/helper/splitdata.h
- src/world/helper/splitdata.cpp

5.161 SplitDetector Class Reference

Collaboration diagram for SplitDetector:



Classes

- struct VoxelGroup

Public Member Functions

- void **searchSplitOffs** (std::list< WorldObjectModification > &worldObjectModifications)
- std::vector< std::shared_ptr < SplitData > > & **splitDataList** ()

Protected Member Functions

- void **clear** ()
- void **findSplits** (WorldObject *worldObject)
- void **createSplitData** (WorldObject *worldObject)
- void **init** (WorldObject *worldObject)
- int **address** (const glm::ivec3 &pos)
- VoxelGroup * **voxelGroup** (const glm::ivec3 &pos)
- void **fillColor** (const glm::ivec3 &start, int groupId)
- void **visit** (const glm::ivec3 &p)

Protected Attributes

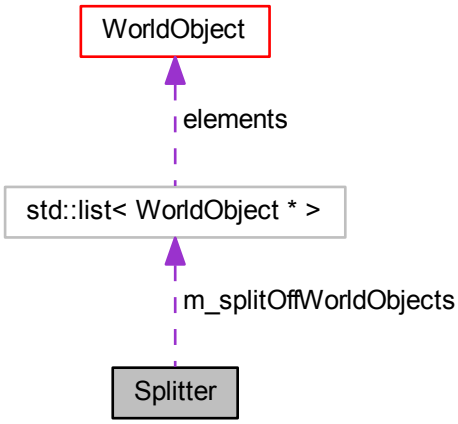
- std::vector< std::shared_ptr < SplitData > > **m_splitDataList**
- std::vector< VoxelGroup > **m_voxelArray**
- std::stack< glm::ivec3 > **m_stack**
- int **m_xy**
- int **m_x**
- glm::ivec3 **m_llf**
- glm::ivec3 **m_size**
- int **m_nextGroupId**

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

- src/world/handler/splitdetector.h
- src/world/handler/splitdetector.cpp

5.162 Splitter Class Reference

Collaboration diagram for Splitter:



Public Member Functions

- void **split** (std::vector< std::shared_ptr< SplitData >> &splits)
- std::list< WorldObject * > & **splitOffWorldObjects** ()

Protected Member Functions

- WorldObject * **createWorldObjectFromSplitOff** (std::shared_ptr< SplitData > split)
- void **removeExtractedVoxelsFromEx** (std::shared_ptr< SplitData > split)

Protected Attributes

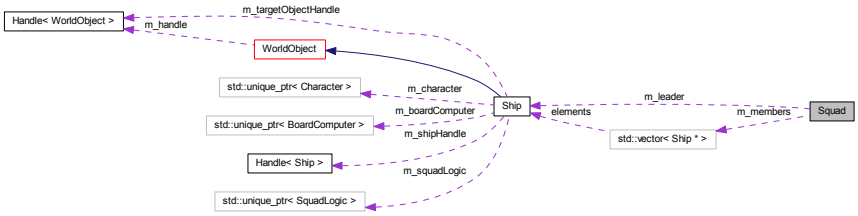
- std::list< WorldObject * > **m_splitOffWorldObjects**

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

- src/world/handler/splitter.h
- src/world/handler/splitter.cpp

5.163 Squad Class Reference

Collaboration diagram for Squad:



Public Member Functions

- **Squad** (Ship ∗leader=nullptr)
- Ship ∗ **leader** ()
- void **setLeader** (Ship ∗leader)
- std::shared_ptr< AiGroupTask > **task** ()
- void **setTask** (std::shared_ptr< AiGroupTask > task)
- const std::vector< Ship ∗ > & **members** ()

Protected Member Functions

- void **onMemberJoin** (Ship ∗member)
- void **onMemberLeave** (Ship ∗member)
- glm::vec3 **formationPositionFor** (Ship ∗member)
- glm::vec3 **formationUpFor** (Ship ∗member)
- void **chooseNewLeader** ()
- glm::vec3 **calculateFormationPosition** (Ship ∗member, int position)

Protected Attributes

- Ship ∗ **m_leader**
- std::vector< Ship ∗ > **m_members**
- std::shared_ptr< AiGroupTask > **m_task**

Friends

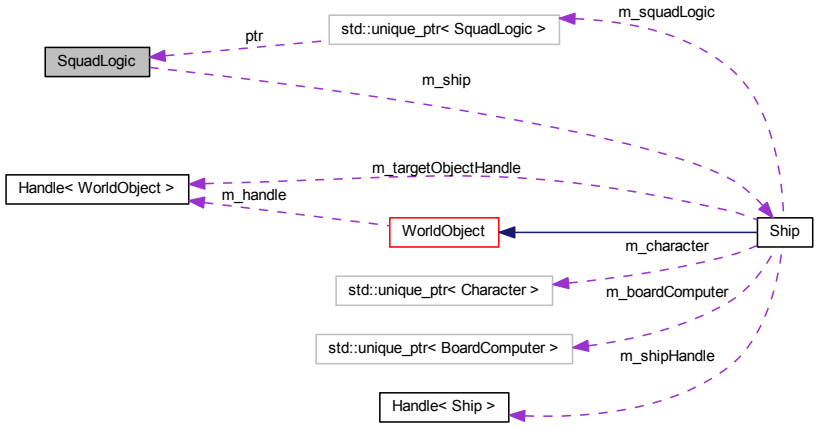
- class **SquadLogic**

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

- src/ai/squad.h
- src/ai/squad.cpp

5.164 SquadLogic Class Reference

Collaboration diagram for SquadLogic:



Public Member Functions

- **SquadLogic** (Ship &ship)
- Ship * **ship** ()
- void **joinSquadOf** (Ship *leader)
- void **joinSquad** (std::shared_ptr< Squad > squad)
- void **leaveSquad** ()
- std::shared_ptr< Squad > **squad** ()
- bool **inSquad** ()
- bool **isSquadLeader** ()
- glm::vec3 **formationPosition** ()
- glm::vec3 **formationUp** ()

Protected Attributes

- Ship & **m_ship**
- std::shared_ptr< Squad > **m_squad**

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

- src/ai/squadlogic.h
- src/ai/squadlogic.cpp

5.165 Starfield::StarData Struct Reference

Public Attributes

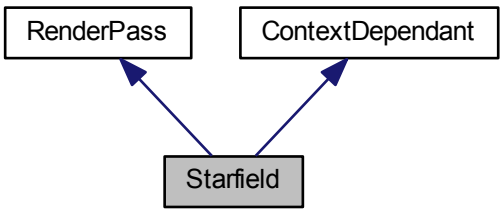
- glm::vec3 **pos**
- float **brightness**
- float **size**

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

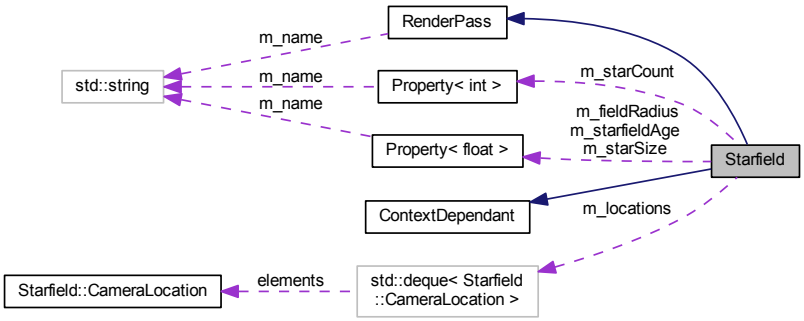
- src/display/rendering/starfield.h

5.166 Starfield Class Reference

Inheritance diagram for Starfield:



Collaboration diagram for Starfield:



Classes

- struct CameraLocation
- struct StarData

Public Member Functions

- virtual void **update** (float deltaSec, const glm::vec3 &cameraPosition)
- virtual void **apply** (FrameBuffer &frameBuffer, const RenderMetaData &metadata) override

Protected Member Functions

- void **createAndSetupShaders** ()

- void **createAndSetupGeometry** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override
- void **createBinding** (int index, std::string name, int offset, int size)
- void **addLocation** (const Camera &camera, int side)
- glm::mat4 **getMatrixFromPast** (const Camera &camera, int side)
- void **cleanUp** (int side)

Protected Attributes

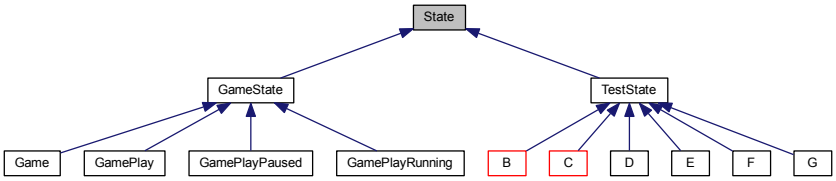
- std::deque< CameraLocation > **m_locations** [2]
- float **m_time**
- Property< float > **m_starfieldAge**
- Property< float > **m_starSize**
- Property< int > **m_starCount**
- Property< float > **m_fieldRadius**
- float **m_oldFieldRadius**
- glow::ref_ptr< glow::Program > **m_shaderProgram**
- glow::ref_ptr
  < glow::VertexArrayObject > **m_vertexArrayObject**
- glow::ref_ptr< glow::Buffer > **m_gpuBuffer**
- glow::Array< StarData > **m_cpuBuffer**

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

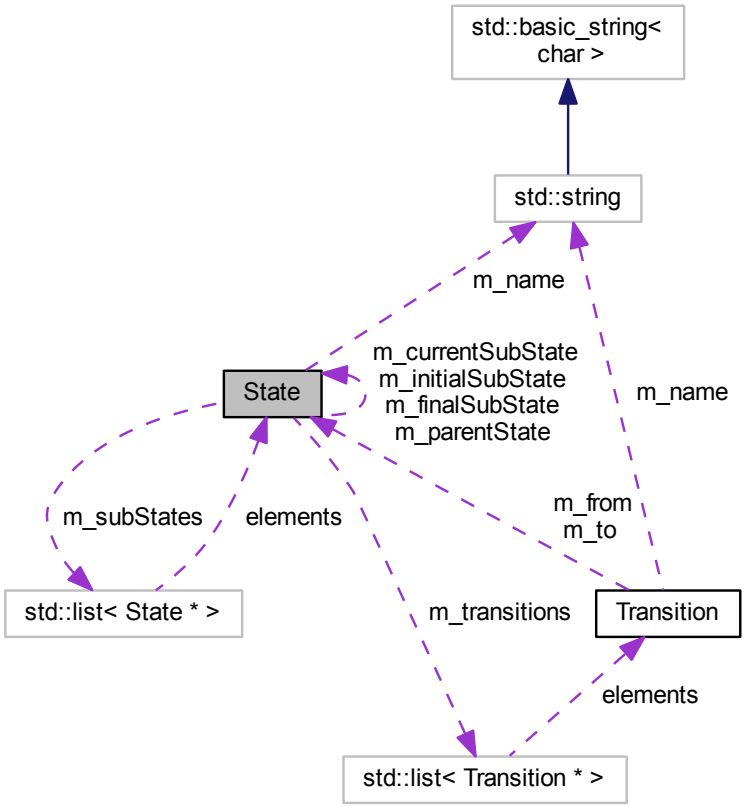
- src/display/rendering/starfield.h
- src/display/rendering/starfield.cpp

5.167 State Class Reference

Inheritance diagram for State:



Collaboration diagram for State:



Public Member Functions

- **State** (State ∗parent=nullptr)
- **State** (const std::string &name, State ∗parent=nullptr)
- const std::string & **name** () const
- void **setName** (const std::string &name)
- State ∗ **parentState** ()
- const State ∗ **parentState** () const
- State ∗ **initialSubState** ()
- const State ∗ **initialSubState** () const
- void **setInitialSubState** (State ∗initialSubState)
- State ∗ **finalSubState** ()
- const State ∗ **finalSubState** () const
- void **setFinalSubState** (State ∗finalSubState)
- State ∗ **currentSubState** ()
- const State ∗ **currentSubState** () const
- void **setCurrentSubState** (State ∗substate)
- bool **finished** () const
- std::list< State ∗ > & **substates** ()
- const std::list< State ∗ > & **substates** () const
- void **addSubState** (State ∗state)

- void **removeSubState** (State *state)
- std::list< Transition * > & **transitions** ()
- const std::list< Transition * > & **transitions** () const
- void **addTransition** (Transition *transition)
- void **removeTransition** (Transition *transition)
- virtual void **update** (float deltaSec)
- virtual void **onEntered** ()
- virtual void **onLeft** ()

Protected Member Functions

- State * **pathToDescendant** (State *descendant)
- void **transit** (State *target)
- void **leave** ()

Protected Attributes

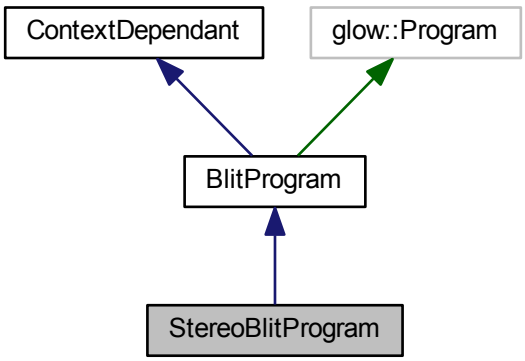
- std::string **m_name**
- State * **m_parentState**
- std::list< State * > **m_subStates**
- std::list< Transition * > **m_transitions**
- State * **m_initialSubState**
- State * **m_finalSubState**
- State * **m_currentSubState**

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

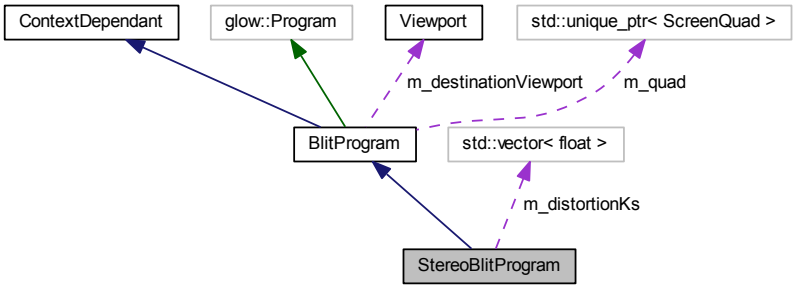
- src/utils/statemachine/state.h
- src/utils/statemachine/state.cpp

5.168 StereoBlitProgram Class Reference

Inheritance diagram for StereoBlitProgram:



Collaboration diagram for StereoBlitProgram:



Public Member Functions

- void **setDistortionKs** (std::vector< float > distortionKs)
- void **setDistortionScale** (float distortionScale)
- void **setLensCenter** (glm::vec2 lensCenter)
- virtual void **blit** () override

Protected Member Functions

- virtual void **initializeShaders** () override

Protected Attributes

- std::vector< float > **m_distortionKs**
- float **m_distortionScale**
- glm::vec2 **m_lensCenter**

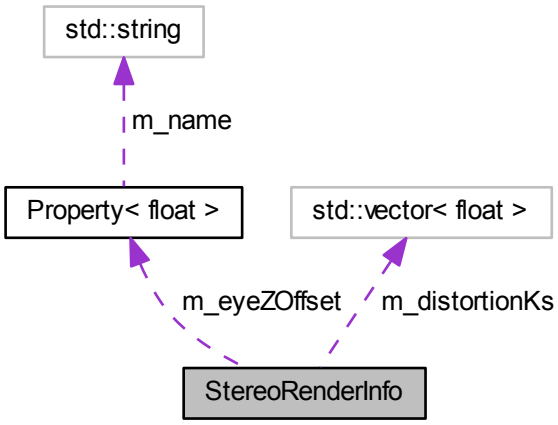
Additional Inherited Members

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

- src/programs/stereoblitprogram.h
- src/programs/stereoblitprogram.cpp

5.169 StereoRenderInfo Class Reference

Collaboration diagram for StereoRenderInfo:



Public Member Functions

- float **hScreenSize** () const
- float **vScreenSize** () const
- float **vScreenCenter** () const
- float **eyeToScreenDistance** () const
- float **lensSeparationDistance** () const
- float **interpupillaryDistance** () const
- int **hResolution** () const
- int **vResolution** () const
- float **distortionK** (int index) const
- std::vector< float > **distortionKs** () const
- float **distortionScale** () const
- float **fovy** () const
- glm::vec2 **leftEyeLensCenter** () const
- glm::vec2 **rightEyeLensCenter** () const
- glm::vec3 **leftEyeOffset** () const
- glm::vec3 **rightEyeOffset** () const
- glm::vec3 **leftEyeProjectionOffset** () const
- glm::vec3 **rightEyeProjectionOffset** () const

Static Public Member Functions

- static StereoRenderInfo **fromOVRInfo** (const OVR::HMDInfo &hmdInfo)
- static StereoRenderInfo **dummy** ()

Protected Member Functions

- float **projectionCenterOffset** () const

Protected Attributes

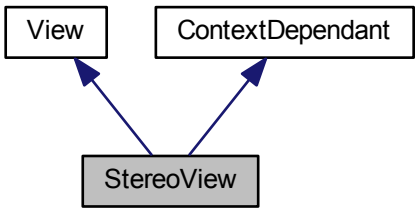
- float **m_hScreenSize**
- float **m_vScreenSize**
- float **m_vScreenCenter**
- float **m_eyeToScreenDistance**
- float **m_lensSeparationDistance**
- float **m_interpupillaryDistance**
- int **m_hResolution**
- int **m_vResolution**
- std::vector< float > **m_distortionKs**
- float **m_distortionScale**
- float **m_fovy**
- Property< float > **m_eyeZOffset**

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

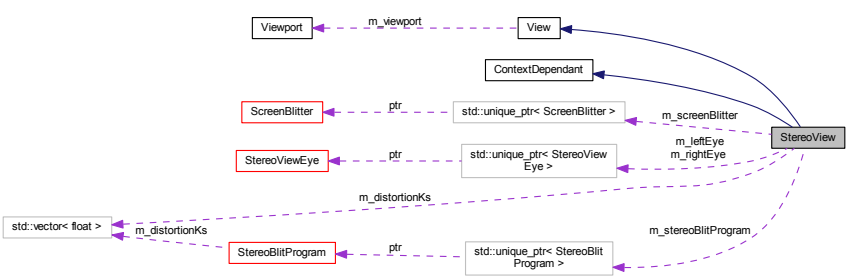
- src/display/stereorenderinfo.h
- src/display/stereorenderinfo.cpp

5.170 StereoView Class Reference

Inheritance diagram for StereoView:



Collaboration diagram for StereoView:



Public Member Functions

- **StereoView** (const Viewport &viewport, const StereoRenderInfo &stereoRenderInfo)
- virtual void **setViewport** (const Viewport &viewport) override
- virtual float **fovy** () const override
- virtual float **zNear** () const override
- virtual float **aspectRatio** () const override
- virtual void **draw** (const Scene &scene, const CameraHead &cameraHead) override

Protected Member Functions

- void **initialize** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

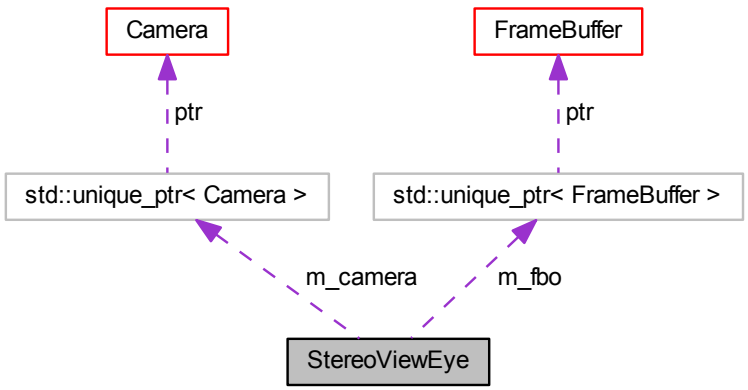
- std::unique_ptr< StereoViewEye > **m_leftEye**
- std::unique_ptr< StereoViewEye > **m_rightEye**
- std::unique_ptr< ScreenBlitter > **m_screenBlitter**
- std::unique_ptr < StereoBlitProgram > **m_stereoBlitProgram**
- glm::vec2 **m_leftEyeLensCenter**
- glm::vec2 **m_rightEyeLensCenter**
- std::vector< float > **m_distortionKs**
- float **m_distortionScale**

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

- src/display/stereoview.h
- src/display/stereoview.cpp

5.171 StereoViewEye Class Reference

Collaboration diagram for StereoViewEye:



Public Member Functions

- **StereoViewEye** (const glm::ivec2 &viewportResolution, const StereoRenderInfo &stereoRenderInfo, EyeSide side)
- FrameBuffer & **fbo** ()
- const Camera & **camera** () const
- void **setViewportResolution** (const glm::ivec2 &viewportResolution)
- void **draw** (const Scene &scene, const CameraHead &cameraHead)

Protected Attributes

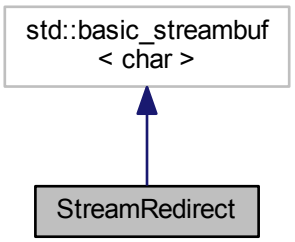
- glm::vec3 **m_offset**
- EyeSide **m_side**
- float **m_distortionScale**
- glm::ivec2 **m_textureSize**
- std::unique_ptr< Camera > **m_camera**
- std::unique_ptr< FrameBuffer > **m_fbo**

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

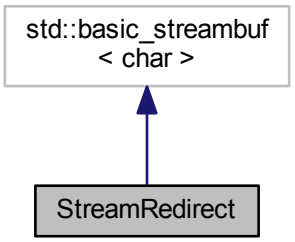
- src/display/stereovieweye.h
- src/display/stereovieweye.cpp

5.172 StreamRedirect Class Reference

Inheritance diagram for StreamRedirect:



Collaboration diagram for StreamRedirect:



Public Member Functions

- **StreamRedirect** (std::ostream &stream, HUD *hud, bool copy=false)

Protected Member Functions

- virtual int_type **overflow** (int_type v) override
- virtual std::streamsize **xsputn** (const char *p, std::streamsize n) override

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

- src/ui/streamredirect.h
- src/ui/streamredirect.cpp

5.173 snowhouse::Stringizer< glm::vec3 > Struct Template Reference

Static Public Member Functions

- static std::string **ToString** (const glm::vec3 &value)

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

- test/bandit_extension/vec3helper.h

5.174 snowhouse::Stringizer< TAABB< T > > Struct Template Reference

Static Public Member Functions

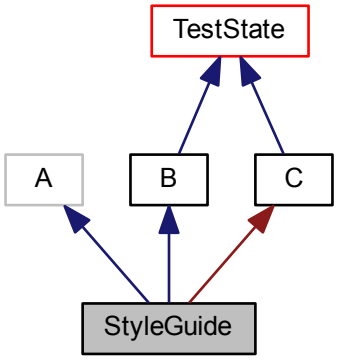
- static std::string **ToString** (const TAABB< T > &value)

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

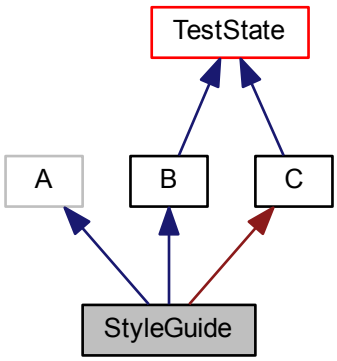
- test/bandit_extension/aabbhelper.h

5.175 StyleGuide Class Reference

Inheritance diagram for StyleGuide:



Collaboration diagram for StyleGuide:



Public Member Functions

- const Value & **value** () const
- void **setValue** (const Value &value)
- virtual void **update** () override

Additional Inherited Members

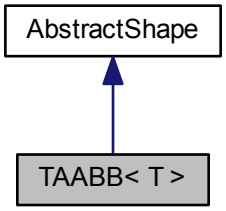
The documentation for this class was generated from the following files:

- doc/styleguide.h

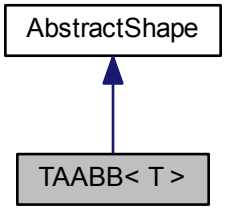
- doc/styleguide.cpp

5.176 TAABB< T > Class Template Reference

Inheritance diagram for TAABB< T >:



Collaboration diagram for TAABB< T >:



Public Member Functions

- **TAABB** (const glm::detail::tvec3< T > &llf, const glm::detail::tvec3< T > &rub)
- template<typename OtherT >
  TAABB (const TAABB< OtherT > &other)
- const glm::detail::tvec3< T > & **llf** () const
- void **setLLF** (const glm::detail::tvec3< T > &llf)
- const glm::detail::tvec3< T > & **rub** () const
- void **setRUB** (const glm::detail::tvec3< T > &rub)
- T **axisMin** (Axis axis) const
- T **axisMax** (Axis axis) const
- glm::detail::tvec3< T > **middle** () const
- virtual T **extent** (Axis axis) const
- T **diameter** () const
- TAABB< T > **moved** (Axis axis, T delta) const
- TAABB< T > **moved** (const glm::detail::tvec3< T > &delta) const

- void **move** (Axis axis, T delta)
- void **move** (const glm::detail::tvec3< T > &delta)
- void **expand** (Axis axis, T delta)
- TAABB< T > **expanded** (Axis axis, T delta) const
- template<typename OtherT >
  bool **intersects** (const TAABB< OtherT > &other) const
- bool **contains** (const TAABB< T > &other) const
- template<typename OtherT >
  bool **contains** (const glm::detail::tvec3< OtherT > &vec) const
- virtual bool **intersects** (const Sphere &sphere) const override
- virtual bool **nearTo** (const TAABB< int > &other) const override
- virtual bool **containedBy** (const TAABB< int > &other) const override
- TAABB< T > **united** (const TAABB< T > &other) const
- void **unite** (const TAABB< T > &other)
- std::list< TAABB< T > > **split** (Axis axis) const
- void **split** (TAABB< T > &a, TAABB< T > &b, Axis axis) const
- std::list< TAABB< T > > **recursiveSplit** (int recursions, Axis axis) const
- bool **operator==** (const TAABB< T > &other) const
- void **extend** (const glm::detail::tvec3< T > &point)

Static Public Member Functions

- static TAABB< float > **containing** (const Sphere &sphere)

Protected Attributes

- glm::detail::tvec3< T > **m_llf**
- glm::detail::tvec3< T > **m_rub**

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

- src/geometry/aabb.h
- src/geometry/aabb.inl

5.177 TargetSelector Class Reference

Public Member Functions

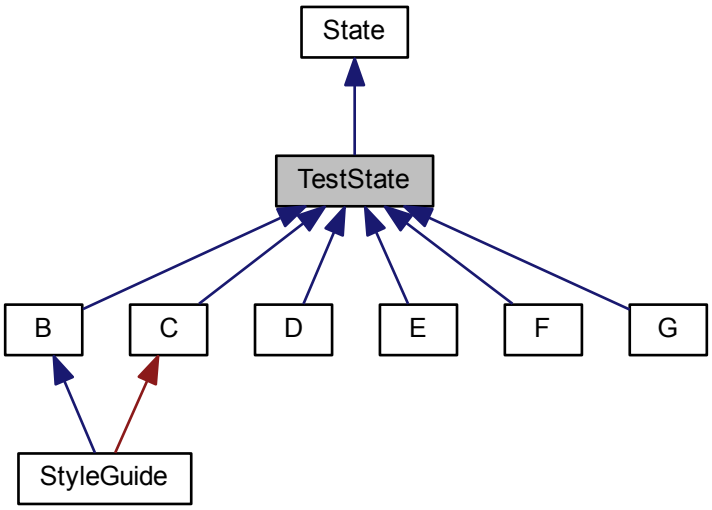
- **TargetSelector** (Player *player)
- void **selectTarget** (bool next)

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

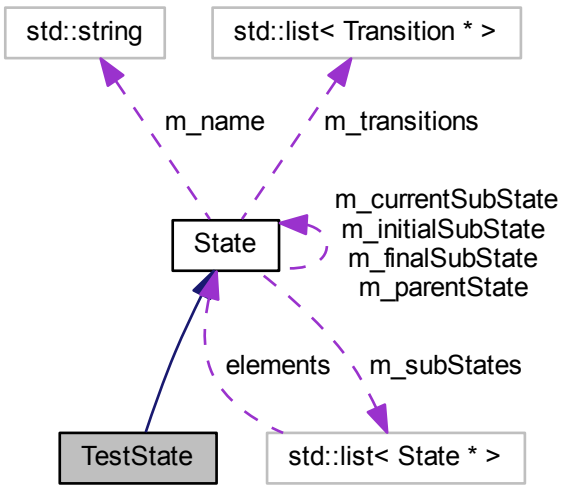
- src/ui/targetselector.h
- src/ui/targetselector.cpp

5.178 TestState Class Reference

Inheritance diagram for TestState:



Collaboration diagram for TestState:



Public Member Functions

- **TestState** (const std::string &name, State *parent)

- virtual void **onLeft** () override

- virtual void **onEntered** () override

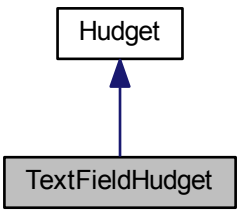
Additional Inherited Members

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

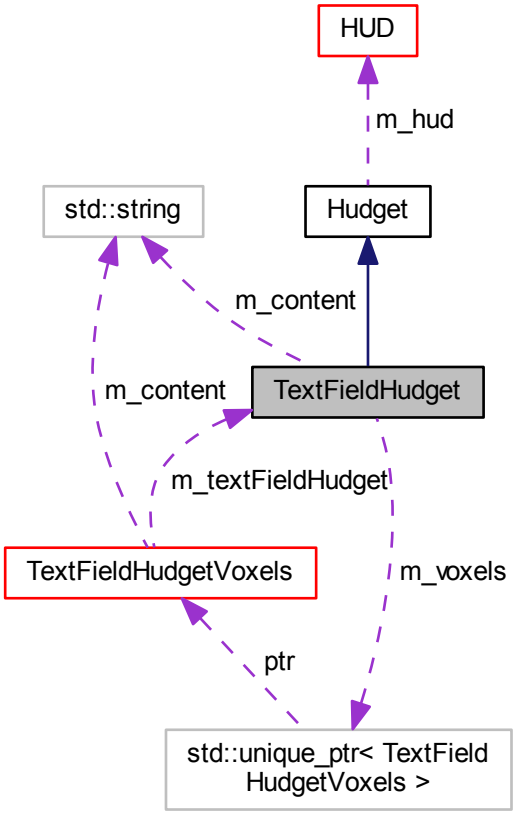
- test/statemachine/teststatemachine.cpp

5.179 TextFieldHudget Class Reference

Inheritance diagram for TextFieldHudget:



Collaboration diagram for TextFieldHudget:



Public Member Functions

- **TextFieldHudget** (HUD *hud, glm::vec3 direction, float scale=0.5f, std::string content="", FontSize fontSize=-FontSize::SIZE5x7)
- void **setContent** (std::string content)
- virtual void **update** (float deltaSec) override
- virtual void **draw** () override
- virtual bool **isAt** (const Ray &ray) const override
- virtual void **onClick** (ClickType clickType) override

Protected Attributes

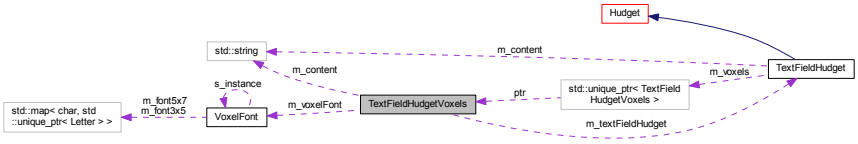
- std::string **m_content**
- std::unique_ptr < TextFieldHudgetVoxels > **m_voxels**

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

- src/ui/hud/textfieldhudget.h
- src/ui/hud/textfieldhudget.cpp

5.180 TextFieldHudgetVoxels Class Reference

Collaboration diagram for TextFieldHudgetVoxels:



Public Member Functions

- **TextFieldHudgetVoxels** (TextFieldHudget ∗textFieldHudget, glm::vec3 direction, float scale=0.5f, std::string content="", FontSize fontSize=FontSize::SIZE5x7)
- void **setContent** (std::string content)
- void **update** (float deltaSec)
- void **draw** ()
- virtual bool **isAt** (const Ray &ray) const
- float **width** ()
- float **height** ()
- float **scale** ()

Protected Member Functions

- const glm::vec3 **upperLeft** () const
- const glm::vec3 **lowerLeft** () const
- const glm::vec3 **upperRight** () const
- const glm::vec3 **lowerRight** () const
- glm::vec3 **worldPosition** () const
- glm::quat **worldOrientation** () const
- const glm::vec3 **offsetToCenter** (bool upper, bool left) const

Protected Attributes

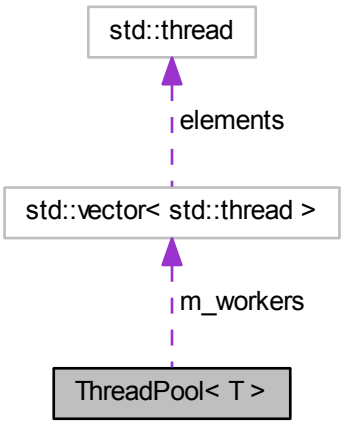
- FontSize **m_fontSize**
- TextFieldHudget ∗ **m_textFieldHudget**
- std::string **m_content**
- VoxelFont ∗ **m_voxelFont**
- glm::vec3 **m_direction**
- float **m_width**
- float **m_height**
- float **m_scale**
- float **m_offset**

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

- src/ui/hud/textfieldhudgetvoxels.h
- src/ui/hud/textfieldhudgetvoxels.cpp

5.181 ThreadPool< T > Class Template Reference

Collaboration diagram for ThreadPool< T >:



Public Member Functions

- **ThreadPool** (int threadcount=4, int chunksize=100)
- void **map** (std::function< void(T &)> function, std::vector< T > &data)
- void **map** (std::function< void(T &)> function, std::vector< T > &data, int start, int end)

Protected Member Functions

- void **startWorkers** ()
- void **worker** ()
- int **getTask** ()

Protected Attributes

- std::vector< T > * **m_tasks**
- std::function< void(T &)> **m_function**
- std::vector< std::thread > **m_workers**
- std::condition_variable **m_startSignal**
- std::condition_variable **m_stopSignal**
- std::mutex **m_mutex**
- std::atomic_int **m_currentIndex**
- int **m_endIndex**
- int **m_chunksize**
- bool **m_exit**
- std::atomic_int **m_startWorkers**
- std::atomic_int **m_stoppedWorkers**

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

- src/utils/threadpool.h
- src/utils/threadpool.inl

5.182 TimedTask Class Reference

Public Member Functions

- **TimedTask** (std::chrono::duration< float > intervalSecs)
- std::chrono::duration< float > **intervalSecs** () const
- void **setIntervalSecs** (std::chrono::duration< float > intervalSecs)
- virtual bool **isDue** () const final
- virtual void **nudge** () final
- virtual void **exec** ()

Protected Attributes

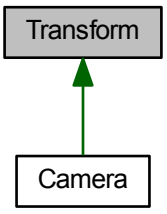
- std::chrono::duration< float > **m_intervalSecs**
- std::chrono::high_resolution_clock::time_point **m_lastExecution**

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

- src/utils/timedtask.h
- src/utils/timedtask.cpp

5.183 Transform Class Reference

Inheritance diagram for Transform:



Public Member Functions

- **Transform** (glm::vec3 center=glm::vec3(0), float scale=1.0)
- **Transform** (const Transform &transform, const glm::vec3 &positionDelta, const glm::quat &orientationDelta)
- const glm::vec3 & **position** () const
- void **setPosition** (const glm::vec3 &pos)
- const glm::quat & **orientation** () const
- void **setOrientation** (const glm::quat &quat)
- const glm::vec3 & **center** () const

- void **setCenter** (const glm::vec3 &center)
- void **setCenterAndAdjustPosition** (const glm::vec3 &newCenter)
- float **scale** () const
- void **setScale** (float scale)
- void **move** (const glm::vec3 &dist)
- void **moveWorld** (const glm::vec3 &dist)
- void **rotate** (const glm::quat &qrot)
- void **rotateWorld** (const glm::quat &qrot)
- bool **operator==** (const Transform &other) const
- bool **operator!=** (const Transform &other) const
- const glm::mat4 **matrix** () const
- glm::vec3 **applyTo** (const glm::vec3 &vertex) const
- glm::vec3 **inverseApplyTo** (const glm::vec3 &vertex) const

Protected Attributes

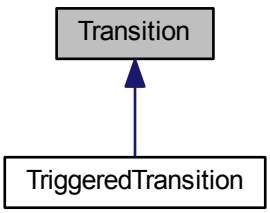
- glm::vec3 **m_position**
- glm::quat **m_orientation**
- glm::vec3 **m_center**
- float **m_scale**

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

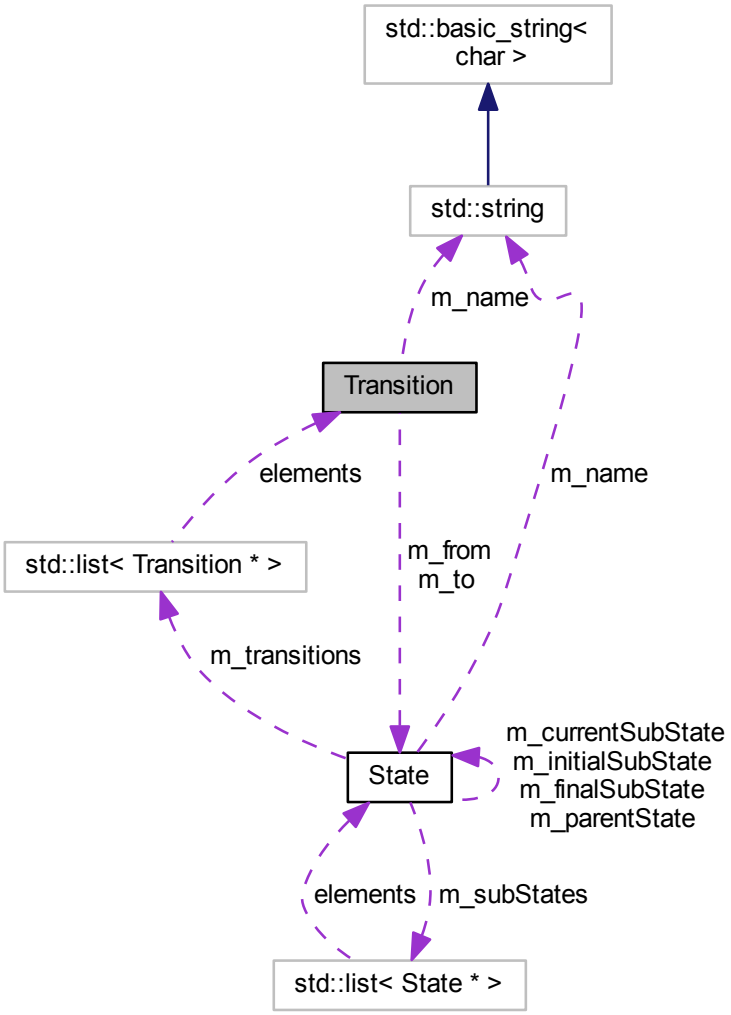
- src/geometry/transform.h
- src/geometry/transform.cpp

5.184 Transition Class Reference

Inheritance diagram for Transition:



Collaboration diagram for Transition:



Public Member Functions

- **Transition** (State *from, State *to)
- **Transition** (State *from, State *to, const std::string &name)
- const std::string & **name** () const
- void **setName** (const std::string &name)
- State * **from** ()
- State * **to** ()
- virtual bool **isPossible** () const =0
- virtual void **onPerformed** ()

Protected Attributes

- State * **m_from**

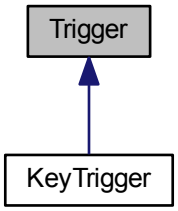
- State * **m_to**
- std::string **m_name**

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

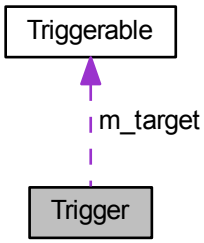
- src/utils/statemachine/transition.h
- src/utils/statemachine/transition.cpp

5.185 Trigger Class Reference

Inheritance diagram for Trigger:



Collaboration diagram for Trigger:



Public Member Functions

- **Trigger** (Triggerable *target=nullptr)
- Triggerable * **target** ()
- void **setTarget** (Triggerable *target)
- void **trigger** ()
- virtual void **update** (float deltaSec)

Protected Attributes

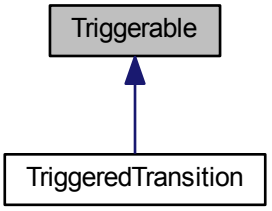
- Triggerable ∗ **m_target**

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

- src/utils/statemachine/trigger.h
- src/utils/statemachine/trigger.cpp

5.186 Triggerable Class Reference

Inheritance diagram for Triggerable:



Public Member Functions

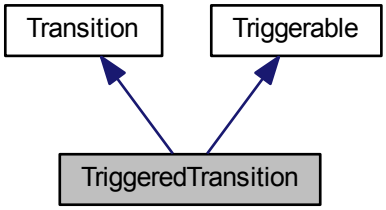
- virtual void **trigger** ()=0

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

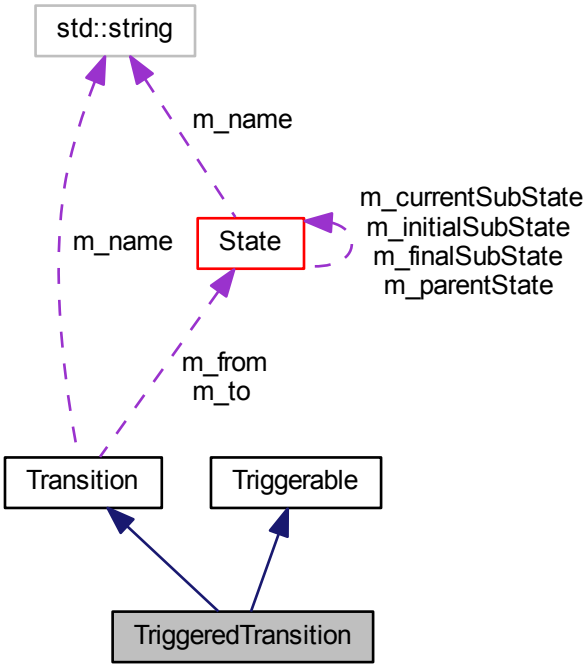
- src/utils/statemachine/triggerable.h

5.187 TriggeredTransition Class Reference

Inheritance diagram for TriggeredTransition:



Collaboration diagram for TriggeredTransition:



Public Member Functions

- **TriggeredTransition** (State *from, State *to)
- **TriggeredTransition** (State *from, State *to, const std::string &name)
- virtual bool **isPossible** () const override
- virtual void **trigger** () override
- virtual void **onPerformed** () override

Protected Attributes

- bool **m_triggered**

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

- src/utils/statemachine/triggeredtransition.h
- src/utils/statemachine/triggeredtransition.cpp

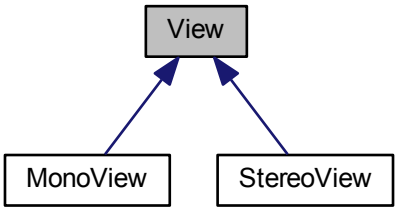
5.188 glow::Uniform< T > Class Template Reference

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

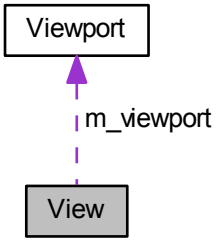
- src/voxel/voxelrenderer.h

5.189 View Class Reference

Inheritance diagram for View:



Collaboration diagram for View:



Public Member Functions

- **View** (const Viewport &viewport)
- virtual float **fovy** () const =0
- virtual float **zNear** () const =0
- virtual float **aspectRatio** () const =0
- virtual void **setViewport** (const Viewport &viewport)
- virtual void **draw** (const Scene &scene, const CameraHead &cameraHead)=0

Protected Attributes

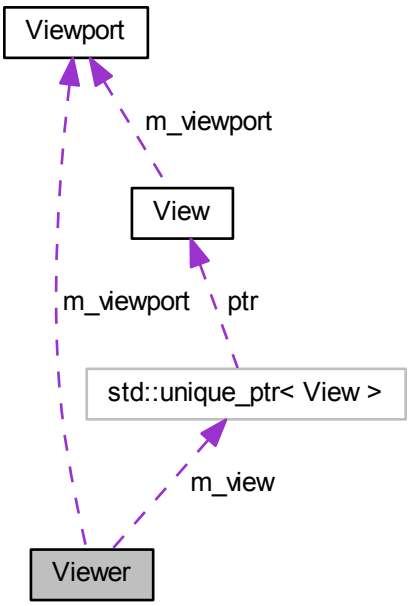
- Viewport **m_viewport**

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

- src/display/view.h
- src/display/view.cpp

5.190 Viewer Class Reference

Collaboration diagram for Viewer:



Public Member Functions

- **Viewer** (const Viewport &viewport)
- const View & **view** () const
- void **setViewport** (const Viewport &viewport)
- void **switchToMonoView** ()
- void **switchToStereoView** (const StereoRenderInfo &stereoRenderInfo)
- void **update** (float deltaSec)
- void **draw** (const Scene &scene, const CameraHead &cameraHead)

Protected Attributes

- std::unique_ptr< View > **m_view**
- Viewport **m_viewport**

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

- src/display/viewer.h
- src/display/viewer.cpp

5.191 Viewport Class Reference

Public Member Functions

- **Viewport** (int x, int y, int width, int height)
- int **x** () const
- int **y** () const
- int **width** () const
- int **height** () const
- glm::vec2 **offset** () const
- glm::vec2 **scale** () const

Protected Attributes

- int **m_x**
- int **m_y**
- int **m_width**
- int **m_height**

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

- src/geometry/viewport.h
- src/geometry/viewport.cpp

5.192 Visuals Class Reference

Public Member Functions

- **Visuals** (uint32_t color, float emissiveness)
- uint32_t **color** () const
- void **setColor** (uint32_t color)
- float **emissiveness** () const
- void **setEmissiveness** (float emissiveness)

Static Public Member Functions

- static Visuals **fromProperties** (const std::string &prefix)

Protected Attributes

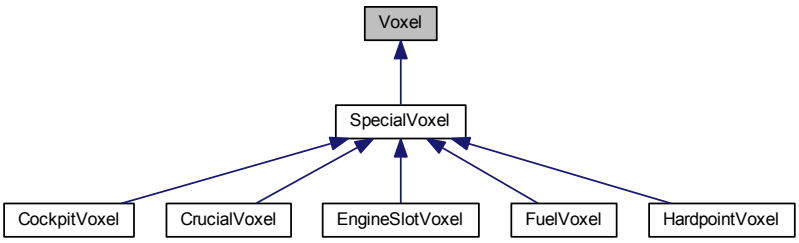
- uint32_t **m_color**
- float **m_emissiveness**

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

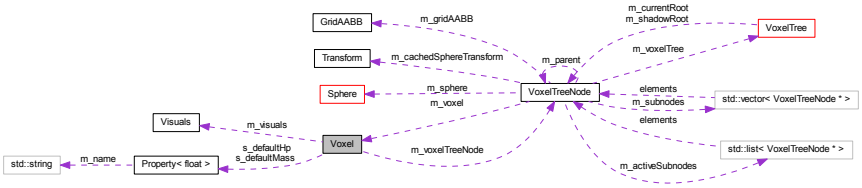
- src/display/rendering/visuals.h
- src/display/rendering/visuals.cpp

5.193 Voxel Class Reference

Inheritance diagram for Voxel:



Collaboration diagram for Voxel:



Public Member Functions

- **Voxel** (const glm::ivec3 &gridCell, uint32_t color=0xFFFFFF, float mass=defaultMass(), float hp=defaultHp(), float emissiveness=0)
- **Voxel** (const Voxel &other)
- const glm::ivec3 & **gridCell** () const
- glm::vec3 **position** () const
- VoxelTreeNode * **voxelTreeNode** ()
- void **setVoxelTreeNode** (VoxelTreeNode *voxelTreeNode)
- virtual void **addToCluster** (VoxelCluster *cluster)
- virtual void **addToObject** (WorldObject *object)
- virtual Visuals **visuals** () const
- float **hp** () const
- void **applyDamage** (float deltaHp)
- virtual float **damageForwardingDestructionDamage** ()
- float **normalizedMass** () const
- virtual void **onRemoval** ()
- virtual void **onDestruction** ()

Static Protected Member Functions

- static float **defaultMass** ()
- static float **defaultHp** ()

Protected Attributes

- glm::ivec3 **m_gridCell**
- VoxelTreeNode * **m_voxelTreeNode**
- Visuals **m_visuals**
- float **m_hp**
- float **m_normalizedMass**

Static Protected Attributes

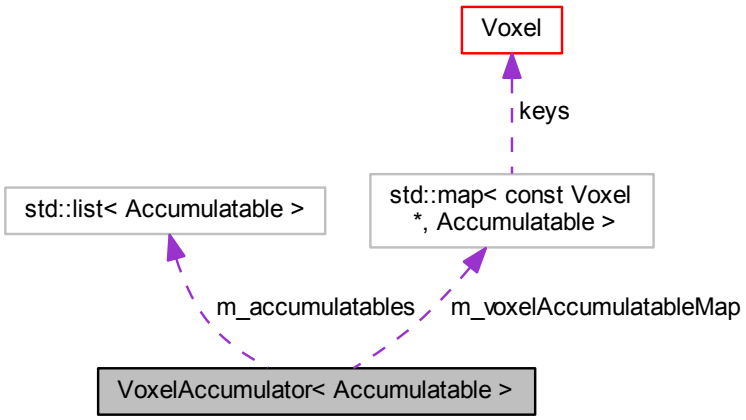
- static Property< float > * **s_defaultMass**
- static Property< float > * **s_defaultHp**

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

- src/voxel/voxel.h
- src/voxel/voxel.cpp

5.194 VoxelAccumulator< Accumulatable > Class Template Reference

Collaboration diagram for VoxelAccumulator< Accumulatable >:



Public Member Functions

- void **clear** ()
- void **parse** (const Accumulatable &accumulatable)
- void **parse** (const std::list< Accumulatable > &accumulatables)
- void **dontAffect** (const std::list< Voxel * > &voxels)
- std::list< Accumulatable > & **accumulatables** ()

Protected Attributes

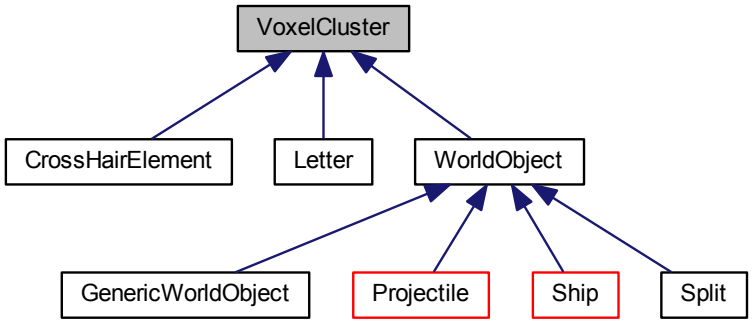
- std::map< const Voxel *, Accumulatable > **m_voxelAccumulatableMap**
- std::list< Accumulatable > **m_accumulatables**

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

- src/world/helper/voxelaccumulator.h
- src/world/helper/voxelaccumulator.inl

5.195 VoxelCluster Class Reference

Inheritance diagram for VoxelCluster:



Collaboration diagram for VoxelCluster:

Public Member Functions

- **VoxelCluster** (float scale)
- VoxelClusterBounds & **bounds** ()
- Transform & **transform** ()
- const Transform & **transform** () const
- void **setTransform** (const Transform &transform)
- const glm::vec3 & **position** () const
- const glm::quat & **orientation** () const
- Voxel * **voxel** (const glm::ivec3 &position)
- const Voxel * **voxel** (const glm::ivec3 &position) const
- virtual void **addVoxel** (Voxel *voxel)
- virtual void **removeVoxel** (Voxel *voxel)

- const std::unordered_map < glm::ivec3, Voxel * > & **voxelMap** () const
- int **voxelCount** () const
- VoxelRenderData * **voxelRenderData** ()
- virtual float **emissiveness** () const

Protected Attributes

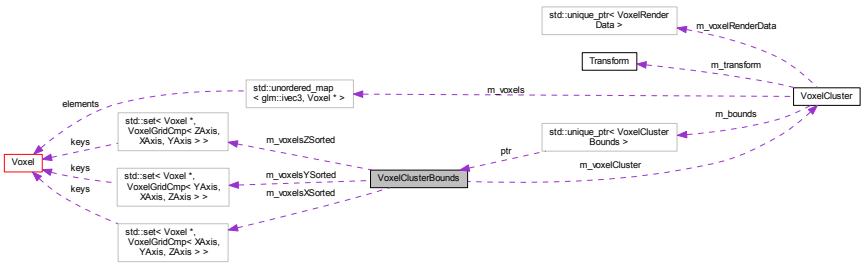
- std::unordered_map< glm::ivec3, Voxel * > **m_voxels**
- std::unique_ptr< VoxelRenderData > **m_voxelRenderData**
- std::unique_ptr < VoxelClusterBounds > **m_bounds**
- Transform **m_transform**

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

- src/voxel/voxelcluster.h
- src/voxel/voxelcluster.cpp

5.196 VoxelClusterBounds Class Reference

Collaboration diagram for VoxelClusterBounds:



Public Member Functions

- **VoxelClusterBounds** (VoxelCluster *voxelCluster)
- void **addVoxel** (Voxel *voxel)
- void **removeVoxel** (Voxel *voxel)
- const GridAABB & **minimalGridAABB** ()
- const Sphere & **minimalGridSphere** ()
- const IAABB & **aabb** ()
- IAABB **aabb** (const Transform &transform)
- const Sphere & **sphere** ()
- Sphere **sphere** (const Transform &transform)

Protected Member Functions

- void **calculateMinimalGridAABB** ()
- void **calculateMinimalGridSphere** ()
- const IAABB **calculateAABB** (const Transform &transform)

Protected Attributes

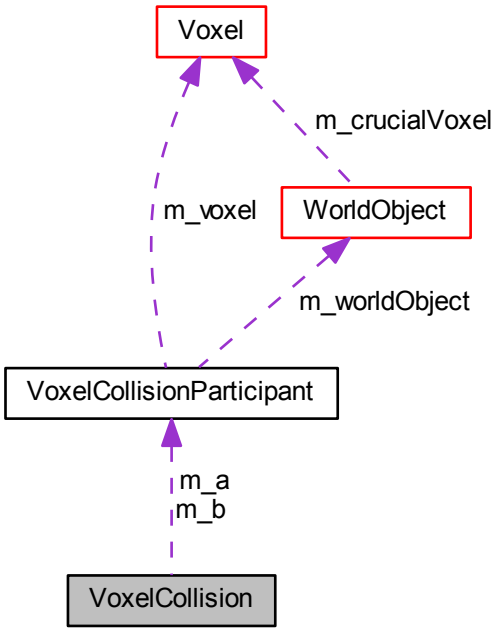
- VoxelCluster * **m_voxelCluster**
- std::set< Voxel *, VoxelGridCmp< XAxis, YAxis, ZAxis > > **m_voxelsXSorted**
- std::set< Voxel *, VoxelGridCmp< YAxis, XAxis, ZAxis > > **m_voxelsYSorted**
- std::set< Voxel *, VoxelGridCmp< ZAxis, XAxis, YAxis > > **m_voxelsZSorted**

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

- src/voxel/voxelclusterbounds.h
- src/voxel/voxelclusterbounds.cpp

5.197 VoxelCollision Class Reference

Collaboration diagram for VoxelCollision:



Public Member Functions

- **VoxelCollision** (const VoxelCollisionParticipant &a, const VoxelCollisionParticipant &b)
- VoxelCollisionParticipant & **a** ()
- VoxelCollisionParticipant & **b** ()

Protected Attributes

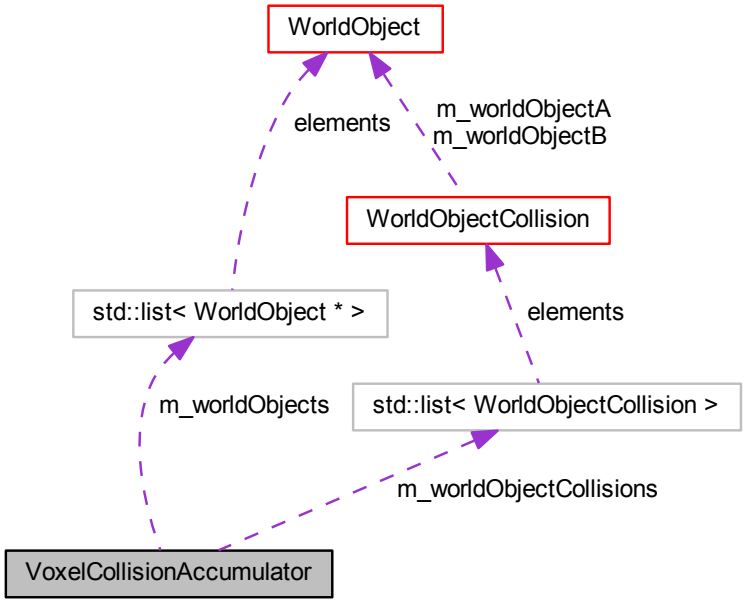
- VoxelCollisionParticipant **m_a**
- VoxelCollisionParticipant **m_b**

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

- src/collision/voxelcollision.h
- src/collision/voxelcollision.cpp

5.198 VoxelCollisionAccumulator Class Reference

Collaboration diagram for VoxelCollisionAccumulator:



Public Member Functions

- void **parse** (std::list< VoxelCollision > &voxelCollisions)
- void **applyOnCollsionHooks** ()
- std::list< WorldObjectCollision > & **worldObjectCollisions** ()
- std::list< WorldObject * > & **worldObjects** ()

Protected Attributes

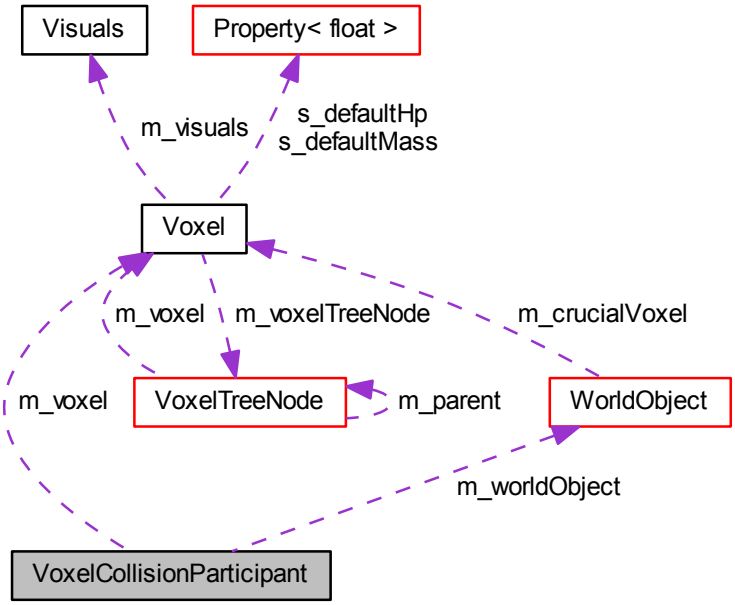
- std::list< WorldObjectCollision > **m_worldObjectCollisions**
- std::list< WorldObject * > **m_worldObjects**

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

- src/world/handler/voxelcollisionaccumulator.h
- src/world/handler/voxelcollisionaccumulator.cpp

5.199 VoxelCollisionParticipant Class Reference

Collaboration diagram for VoxelCollisionParticipant:



Public Member Functions

- **VoxelCollisionParticipant** (WorldObject *worldObject, Voxel *voxel)
- WorldObject * **worldObject** ()
- Voxel * **voxel** ()

Protected Attributes

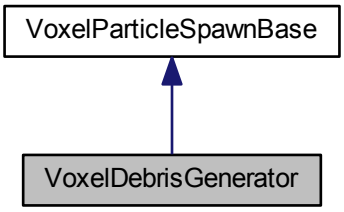
- WorldObject * **m_worldObject**
- Voxel * **m_voxel**

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

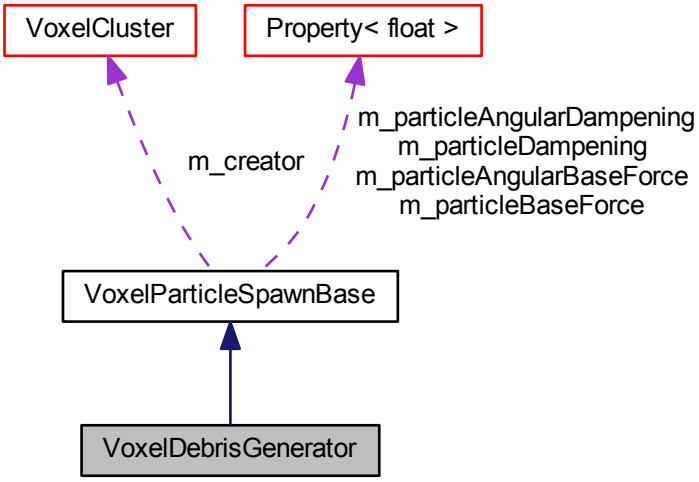
- src/collision/voxelcollision.h
- src/collision/voxelcollision.cpp

5.200 VoxelDebrisGenerator Class Reference

Inheritance diagram for VoxelDebrisGenerator:



Collaboration diagram for VoxelDebrisGenerator:



Public Member Functions

- **VoxelDebrisGenerator** (const VoxelCluster ∗creator)
- void **setOrientation** (const glm::quat &orientation)
- void **setDensity** (int density)
- void **setSpawnProbability** (float spawnProbability)
- void **spawn** ()

Protected Member Functions

- float **createScale** ()

Protected Attributes

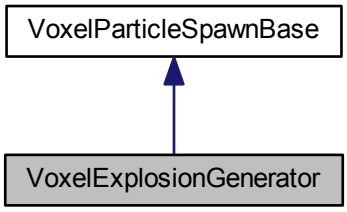
- glm::quat **m_orientation**
- int **m_density**
- float **m_spawnProbability**

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

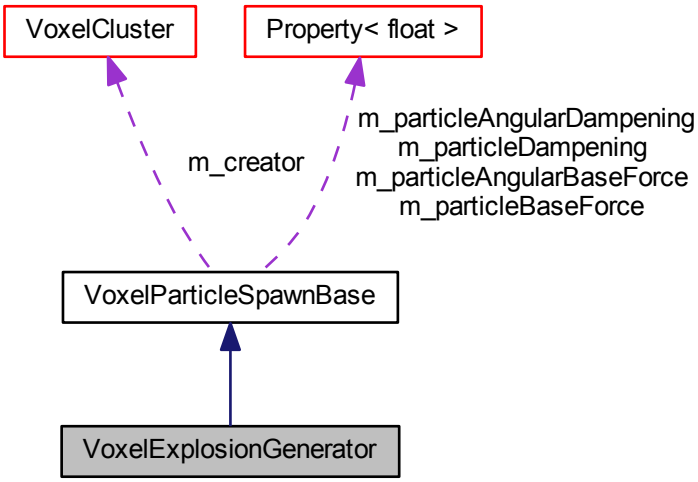
- src/voxeleffect/voxeldebrisgenerator.h
- src/voxeleffect/voxeldebrisgenerator.cpp

5.201 VoxelExplosionGenerator Class Reference

Inheritance diagram for VoxelExplosionGenerator:



Collaboration diagram for VoxelExplosionGenerator:



Public Member Functions

- **VoxelExplosionGenerator** (const VoxelCluster *creator)
- void **setRadius** (float radius)
- void **setCount** (int count)
- void **spawn** ()

Protected Member Functions

- float **createScale** ()

Protected Attributes

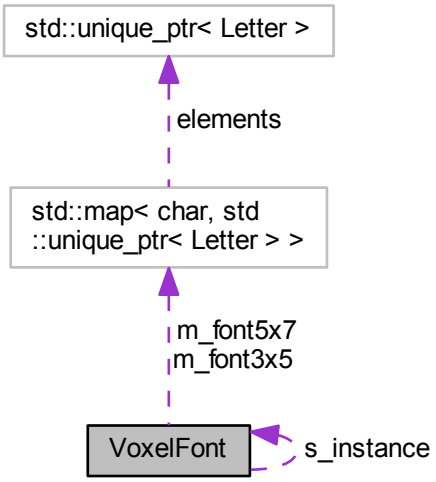
- float **m_radius**
- int **m_count**

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

- src/voxeleffect/voxelexplosiongenerator.h
- src/voxeleffect/voxelexplosiongenerator.cpp

5.202 VoxelFont Class Reference

Collaboration diagram for VoxelFont:



Public Member Functions

- void **drawString** (std::string text, glm::vec3 position, glm::quat orientation, FontSize size=FontSize::SIZE5x7, float scale=1.f, FontAlign align=FontAlign::CENTER)
- int **letterWidth** (FontSize size)
- int **letterHeight** (FontSize size)

Static Public Member Functions

- static VoxelFont * **instance** ()

Protected Member Functions

- void **loadFont** (const std::string &identifier, glm::vec3 offset, std::map< char, std::unique_ptr< Letter >> *map)
- void **loadChar** (const std::string &filename, glm::vec3 offset, const char index, std::map< char, std::unique_ptr< Letter >> *map)

Protected Attributes

- std::map< char, std::unique_ptr< Letter > > **m_font3x5**
- std::map< char, std::unique_ptr< Letter > > **m_font5x7**

Static Protected Attributes

- static VoxelFont * **s_instance** = nullptr

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

- src/ui/voxelfont.h
- src/ui/voxelfont.cpp

5.203 VoxelGridCmp< highPriorityAxis, middlePriorityAxis, lowPriorityAxis > Class Template Reference

Public Member Functions

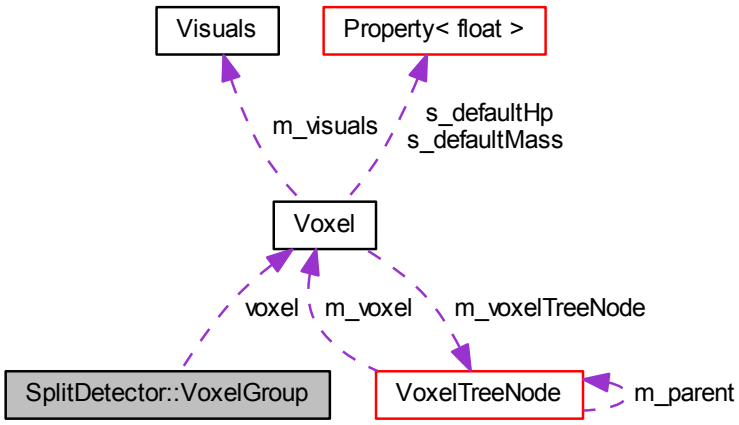
- bool **operator()** (const Voxel *voxel1, const Voxel *voxel2) const

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

- src/voxel/voxelgridcmp.h
- src/voxel/voxelgridcmp.inl

5.204 SplitDetector::VoxelGroup Struct Reference

Collaboration diagram for SplitDetector::VoxelGroup:



Public Attributes

- Voxel * **voxel**
- int **groupId**

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

- src/world/handler/splitdetector.h
- src/world/handler/splitdetector.cpp

5.205 VoxelHangman Class Reference

Public Member Functions

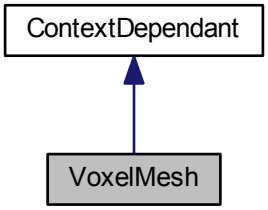
- void **applyOnDestructionHooks** (std::list< DamageImpact > &deadlyDamageImpacts)
- void **removeDestroyedVoxels** (std::list< DamageImpact > &deadlyDamageImpacts)

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

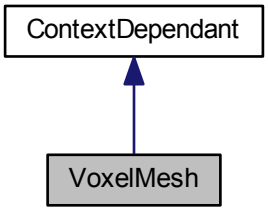
- src/world/handler/voxelhangman.h
- src/world/handler/voxelhangman.cpp

5.206 VoxelMesh Class Reference

Inheritance diagram for VoxelMesh:



Collaboration diagram for VoxelMesh:



Public Member Functions

- void **bindTo** (glow::Program ∗program, glow::VertexArrayObject ∗vao, int bindingIndex)

Protected Member Functions

- void **setupVertexAttribute** (glow::Program ∗program, glow::VertexArrayObject ∗vao, const std::string &name, GLboolean normalised, int bindingNum, GLint offset)
- void **initialize** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

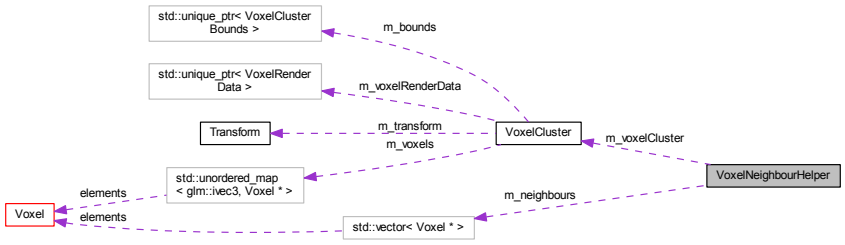
- bool **m_initialized**
- glow::ref_ptr< glow::Buffer > **m_vertexBuffer**

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

- src/voxeleffect/voxelmesh.h
- src/voxeleffect/voxelmesh.cpp

5.207 VoxelNeighbourHelper Class Reference

Collaboration diagram for VoxelNeighbourHelper:



Public Member Functions

- **VoxelNeighbourHelper** (VoxelCluster ∗voxelCluster, bool includeDiagonals=true)
- const std::vector< Voxel ∗ > & **neighbours** (const glm::ivec3 &pos)
- const std::vector< Voxel ∗ > & **neighbours** (Voxel ∗voxel)

Protected Member Functions

- void **considerNeighbour** (const glm::ivec3 &pos, const glm::ivec3 &offset)

Protected Attributes

- VoxelCluster ∗ **m_voxelCluster**
- std::vector< Voxel ∗ > **m_neighbours**
- bool **m_includeDiagonals**

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

- src/voxel/voxelneighbourhelper.h
- src/voxel/voxelneighbourhelper.cpp

5.208 VoxelParticleData Struct Reference

Public Types

- enum **Status** { **Removed**, **Alive**, **Dead** }

Public Attributes

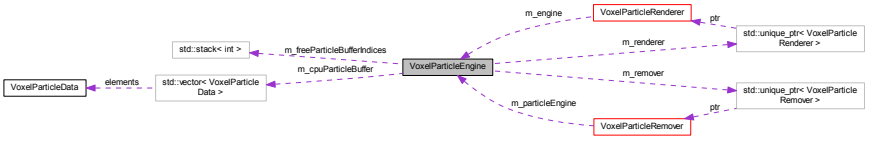
- Status **status**
- glm::vec3 **creationPosition**
- glm::vec3 **creationEulers**
- glm::vec3 **directionalSpeed**
- glm::vec3 **angularSpeed**
- float **creationTime**
- float **deathTime**
- float **scale**
- uint32_t **color**
- float **emissiveness**

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

- src/voxeleffect/voxelparticledata.h

5.209 VoxelParticleEngine Class Reference

Collaboration diagram for VoxelParticleEngine:



Public Member Functions

- float **time** () const
- int **particleDataCount** () const
- VoxelParticleData * **particleData** (int index)
- std::vector< VoxelParticleData > & **particleDataVector** ()
- void **setPlayer** (Player &m_player)
- void **addParticle** (const VoxelParticleSetup &particleSetup, const VoxelCluster *creator)
- void **removeParticle** (int index)
- void **update** (float deltaSec)
- void **draw** (const Camera &camera)

Protected Member Functions

- void **setBufferSize** (int bufferSize)
- void **particleChanged** (int bufferIndex)
- void **updateGPUBuffers** (int begin, int end)

Protected Attributes

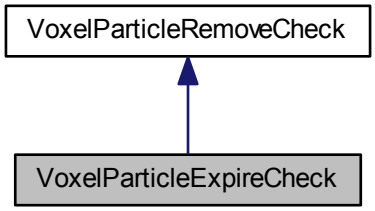
- float **m_time**
- bool **m_initialized**
- std::unique_ptr < VoxelParticleRenderer > **m_renderer**
- std::unique_ptr < VoxelParticleRemover > **m_remover**
- std::vector< VoxelParticleData > **m_cpuParticleBuffer**
- std::stack< int > **m_freeParticleBufferIndices**
- bool **m_gpuParticleBufferInvalid**
- int **m_gpuParticleBufferInvalidBegin**
- int **m_gpuParticleBufferInvalidEnd**

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

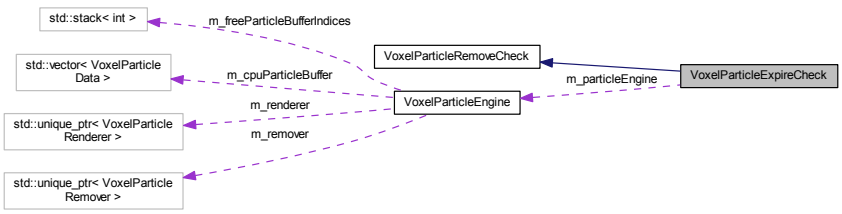
- src/voxeleffect/voxelparticleengine.h
- src/voxeleffect/voxelparticleengine.cpp

5.210 VoxelParticleExpireCheck Class Reference

Inheritance diagram for VoxelParticleExpireCheck:



Collaboration diagram for VoxelParticleExpireCheck:



Public Member Functions

- **VoxelParticleExpireCheck** (const VoxelParticleEngine &engine)
- virtual bool **isDead** (const VoxelParticleData &particle) override

Protected Attributes

- const VoxelParticleEngine & **m_particleEngine**

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

- src/voxeleffect/particlechecks/voxelparticleexpirecheck.h
- src/voxeleffect/particlechecks/voxelparticleexpirecheck.cpp

5.211 VoxelParticleFutureCheck Class Reference

Static Public Member Functions

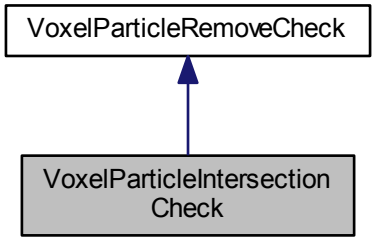
- static bool **intersectsIn** (const VoxelParticleData &particle, float futureSecs, const VoxelCluster &against)

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

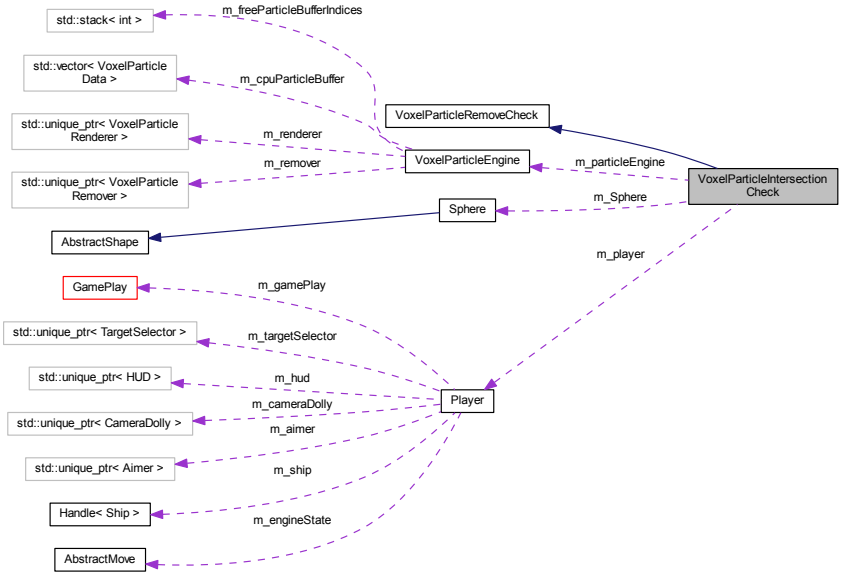
- src/voxeleffect/particlechecks/voxelparticlefuturecheck.h
- src/voxeleffect/particlechecks/voxelparticlefuturecheck.cpp

5.212 VoxelParticleIntersectionCheck Class Reference

Inheritance diagram for VoxelParticleIntersectionCheck:



Collaboration diagram for VoxelParticleIntersectionCheck:



Public Member Functions

- **VoxelParticleIntersectionCheck** (const VoxelParticleEngine &engine)
- virtual bool **isDead** (const VoxelParticleData &particle) override
- virtual void **setPlayer** (Player &player) override

Protected Member Functions

- virtual void **beforeCheck** ()

Protected Attributes

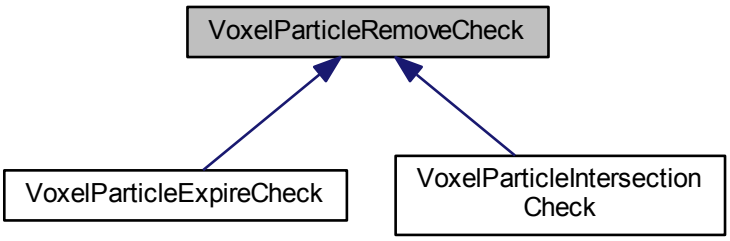
- const VoxelParticleEngine & **m_particleEngine**
- Player * **m_player**
- Sphere **m_Sphere**

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

- src/voxeleffect/particlechecks/voxelparticleintersectioncheck.h
- src/voxeleffect/particlechecks/voxelparticleintersectioncheck.cpp

5.213 VoxelParticleRemoveCheck Class Reference

Inheritance diagram for VoxelParticleRemoveCheck:



Public Member Functions

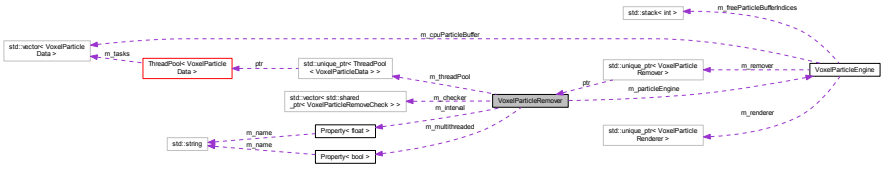
- virtual bool **isDead** (const VoxelParticleData &particle)=0
- virtual void **setPlayer** (Player &player)
- virtual void **beforeCheck** ()

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

- src/voxeleffect/particlechecks/voxelparticleremovecheck.h
- src/voxeleffect/particlechecks/voxelparticleremovecheck.cpp

5.214 VoxelParticleRemover Class Reference

Collaboration diagram for VoxelParticleRemover:



Public Member Functions

- **VoxelParticleRemover** (VoxelParticleEngine ∗world)
- void **addCheck** (std::shared_ptr< VoxelParticleRemoveCheck > checker)
- void **setPlayer** (Player &player)
- float **interval** () const
- void **setInterval** (float interval)
- virtual void **update** (float deltaSec)

Protected Member Functions

- void **performChecks** (int checkCount)
- bool **isDead** (VoxelParticleData &particle)
- void **beforeCheck** ()

Protected Attributes

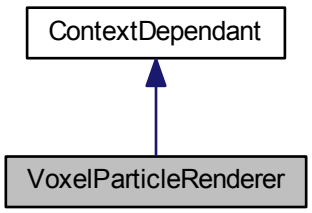
- VoxelParticleEngine * **m_particleEngine**
- std::vector< std::shared_ptr < VoxelParticleRemoveCheck > > **m_checker**
- std::unique_ptr< ThreadPool < VoxelParticleData > > **m_threadPool**
- Property< float > **m_interval**
- Property< bool > **m_multithreaded**
- int **m_currentIndex**

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

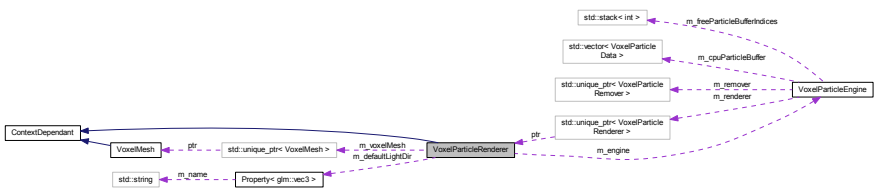
- src/voxeleffect/particlechecks/voxelparticleremover.h
- src/voxeleffect/particlechecks/voxelparticleremover.cpp

5.215 VoxelParticleRenderer Class Reference

Inheritance diagram for VoxelParticleRenderer:



Collaboration diagram for VoxelParticleRenderer:



Public Member Functions

- **VoxelParticleRenderer** (VoxelParticleEngine *engine)
- void **updateBuffer** (int begin, int end, VoxelParticleData *data)
- void **draw** (const Camera &camera)

Protected Member Functions

- void **initialize** ()
- void **loadProgram** ()
- void **setupVertexAttributes** ()
- void **setupVertexAttribute** (GLint offset, const std::string &name, int numPerVertex, GLenum type, GLboolean normalised, int bindingNum)
- void **setupVertexAttribDivisors** ()
- void **setBufferSize** (int bufferSize)
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

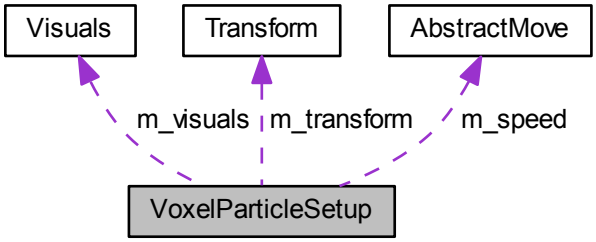
- std::unique_ptr< VoxelMesh > **m_voxelMesh**
- bool **m_initialized**
- VoxelParticleEngine * **m_engine**
- int **m_bufferSize**
- Property< glm::vec3 > **m_defaultLightDir**
- glow::ref_ptr< glow::Buffer > **m_gpuParticleBuffer**
- glow::ref_ptr< glow::Program > **m_program**
- glow::ref_ptr
  < glow::VertexArrayObject > **m_vertexArrayObject**

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

- src/voxeleffect/voxelparticlerenderer.h
- src/voxeleffect/voxelparticlerenderer.cpp

5.216 VoxelParticleSetup Class Reference

Collaboration diagram for VoxelParticleSetup:



Public Member Functions

- **VoxelParticleSetup** (const Transform &transform, const Visuals &visuals, const Speed &speed, float lifetime)
- VoxelParticleData **toData** (float timeSecs) const

Protected Attributes

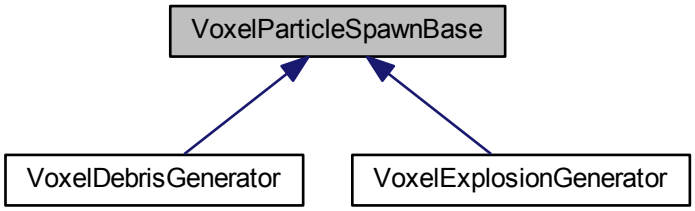
- Transform **m_transform**
- Visuals **m_visuals**
- Speed **m_speed**
- float **m_lifetime**

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

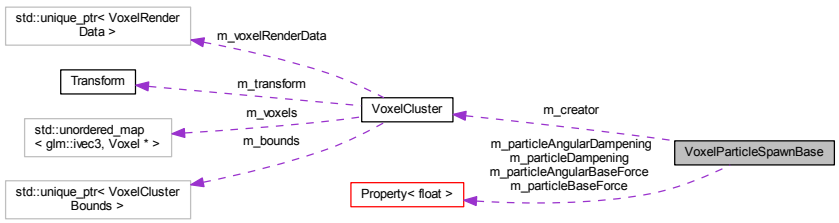
- src/voxeleffect/voxelparticlesetup.h
- src/voxeleffect/voxelparticlesetup.cpp

5.217 VoxelParticleSpawnBase Class Reference

Inheritance diagram for VoxelParticleSpawnBase:



Collaboration diagram for VoxelParticleSpawnBase:



Public Member Functions

- void **setPosition** (const glm::vec3 &position)
- void **setOrientation** (const glm::quat &orientation)

- void **setScale** (float scale, float randomization=0.0f)
- void **setForce** (float force, float randomization=0.0f)
- void **setLifetime** (float lifetime, float randomization=0.0f)
- void **setColor** (int color)
- void **setEmissiveness** (float emissiveness)
- void **setImpactVector** (const glm::vec3 &impactVector)

Protected Member Functions

- **VoxelParticleSpawnBase** (const VoxelCluster ∗creator, char ∗dampeningName, char ∗angularDampeningName, char ∗baseForceName, char ∗angularBaseForceName)
- glm::vec3 **createDirectionalSpeed** ()
- glm::vec3 **createAngularSpeed** ()
- float **createLifetime** ()

Protected Attributes

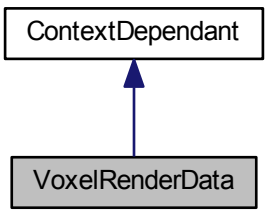
- const VoxelCluster ∗ **m_creator**
- glm::vec3 **m_position**
- float **m_scale**
- float **m_scaleRandomization**
- float **m_force**
- float **m_forceRandomization**
- float **m_lifetime**
- float **m_lifetimeRandomization**
- int **m_color**
- float **m_emissiveness**
- glm::vec3 **m_impactVector**
- Property< float > **m_particleDampening**
- Property< float > **m_particleAngularDampening**
- Property< float > **m_particleBaseForce**
- Property< float > **m_particleAngularBaseForce**

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

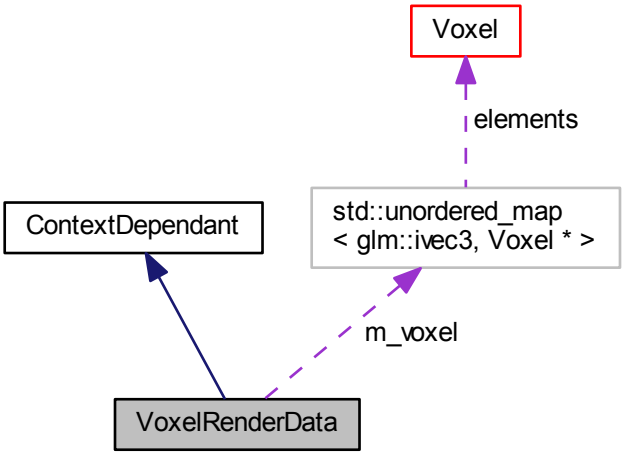
- src/voxeleffect/voxelparticlespawnbase.h
- src/voxeleffect/voxelparticlespawnbase.cpp

5.218 VoxelRenderData Class Reference

Inheritance diagram for VoxelRenderData:



Collaboration diagram for VoxelRenderData:



Public Member Functions

- **VoxelRenderData** (std::unordered_map< glm::ivec3, Voxel * > &voxel)
- void **invalidate** ()
- int **voxelCount** ()
- glow::VertexArrayObject * **vertexArrayObject** ()

Protected Member Functions

- void **updateBuffer** ()
- void **setupVertexAttributes** ()
- void **setupVertexAttribute** (GLint offset, const std::string &name, int numPerVertex, GLenum type, GLboolean normalised, int bindingNum)
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

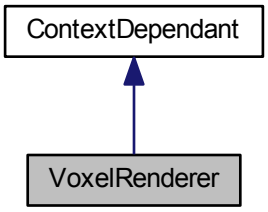
- std::unordered_map< glm::ivec3, Voxel * > & **m_voxel**
- bool **m_isDirty**
- int **m_bufferSize**
- glow::ref_ptr< glow::Buffer > **m_voxelDataBuffer**
- glow::ref_ptr < glow::VertexArrayObject > **m_vertexArrayObject**

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

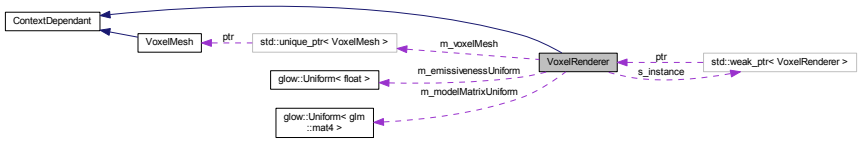
- src/voxel/voxelrenderdata.h
- src/voxel/voxelrenderdata.cpp

5.219 VoxelRenderer Class Reference

Inheritance diagram for VoxelRenderer:



Collaboration diagram for VoxelRenderer:



Public Member Functions

- void **prepareDraw** (const Camera &camera, bool withBorder=true)
- void **draw** (VoxelCluster &cluster)
- void **afterDraw** ()
- bool **prepared** ()

Static Public Member Functions

- static std::shared_ptr < VoxelRenderer > **instance** ()
- static glow::Program * **program** ()
- static VoxelMesh & **voxelMesh** ()

Protected Member Functions

- void **createAndSetupShaders** ()
- virtual void **beforeContextDestroy** () override
- virtual void **afterContextRebuild** () override

Protected Attributes

- glow::ref_ptr< glow::Program > **m_program**
- std::unique_ptr< VoxelMesh > **m_voxelMesh**

- bool **m_prepared**
- glow::Uniform< glm::mat4 > * **m_modelMatrixUniform**
- glow::Uniform< float > * **m_emissivenessUniform**

Static Protected Attributes

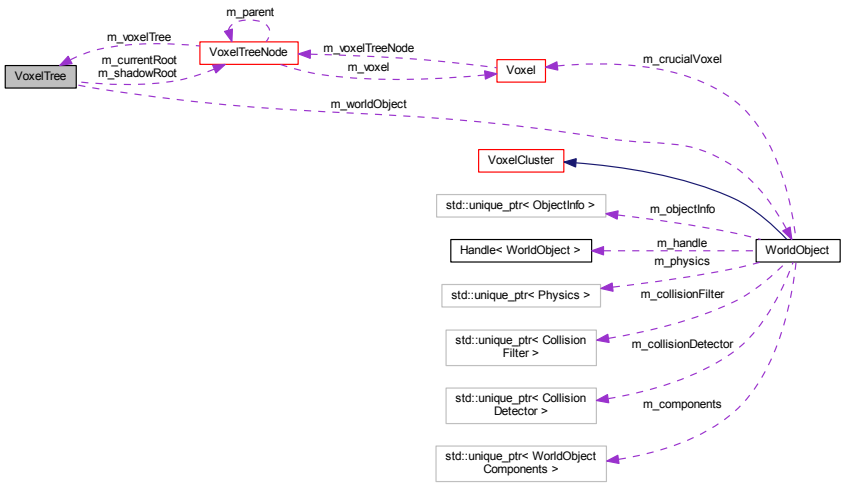
- static std::weak_ptr < VoxelRenderer > **s_instance**

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

- src/voxel/voxelrenderer.h
- src/voxel/voxelrenderer.cpp

5.220 VoxelTree Class Reference

Collaboration diagram for VoxelTree:



Public Member Functions

- **VoxelTree** (WorldObject *worldObject)
- VoxelTreeNode * **root** ()
- void **insert** (Voxel *voxel)
- void **remove** (Voxel *voxel)
- WorldObject * **worldObject** ()

Protected Attributes

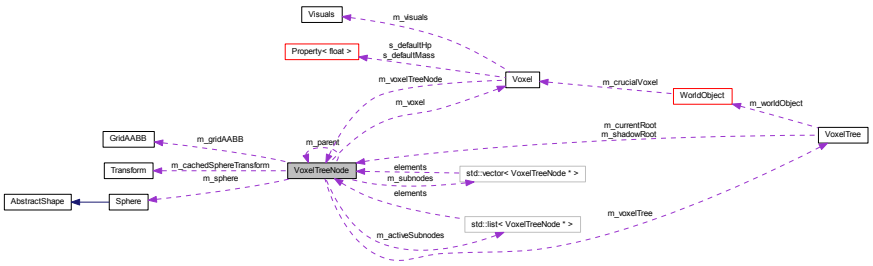
- VoxelTreeNode * **m_shadowRoot**
- VoxelTreeNode * **m_currentRoot**
- WorldObject * **m_worldObject**

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

- src/voxel/voxeltree.h
- src/voxel/voxeltree.cpp

5.221 VoxelTreeNode Class Reference

Collaboration diagram for VoxelTreeNode:



Public Member Functions

- **VoxelTreeNode** (int octIndex, VoxelTree ∗voxelTree, VoxelTreeNode ∗parent, const GridAABB &gridAABB)
- **VoxelTreeNode** (VoxelTree ∗voxelTree, const GridAABB &gridAABB, VoxelTreeNode ∗initialSubnode)
- int **octIndex** () const
- bool **isAtomic** () const
- bool **isVoxel** () const
- bool **isLeaf** () const
- bool **isEmpty** () const
- std::list< VoxelTreeNode ∗ > & **subnodes** ()
- const std::list< VoxelTreeNode ∗ > & **subnodes** () const
- Voxel ∗ **voxel** ()
- const Voxel ∗ **voxel** () const
- VoxelTree ∗ **voxelTree** ()
- VoxelTreeNode ∗ **parent** ()
- void **setParent** (VoxelTreeNode ∗parent)
- const GridAABB & **gridAABB** () const
- Sphere & **sphere** ()
- Sphere & **sphere** (const Transform &transform)
- bool **active** () const
- void **setActive** (bool active)
- void **insert** (Voxel ∗voxel)
- void **remove** (Voxel ∗voxel)

Protected Member Functions

- void **toGroup** ()
- void **subnodeActivated** (VoxelTreeNode ∗subnode)
- void **subnodeDeactivated** (VoxelTreeNode ∗subnode)
- VoxelTreeNode ∗ **cellSubnode** (const glm::ivec3 &cell)
- void **calculateSpherePosition** (const Transform &transform)
- void **calculateSphereRadius** (const Transform &transform)

Protected Attributes

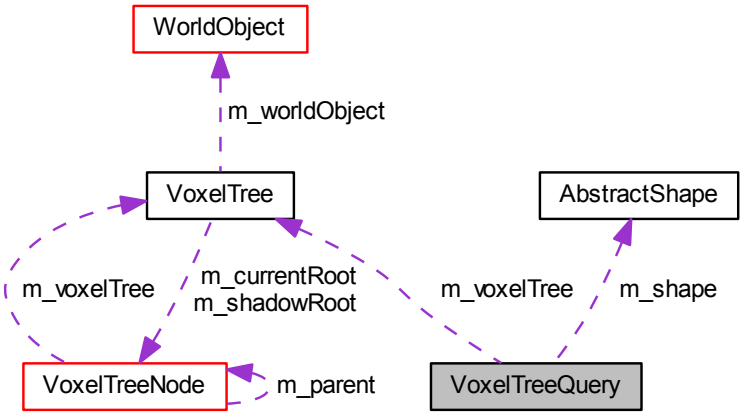
- int **m_octIndex**
- VoxelTreeNode * **m_parent**
- VoxelTree * **m_voxelTree**
- GridAABB **m_gridAABB**
- Sphere **m_sphere**
- Transform **m_cachedSphereTransform**
- bool **m_active**
- std::vector< VoxelTreeNode * > **m_subnodes**
- std::list< VoxelTreeNode * > **m_activeSubnodes**
- Voxel * **m_voxel**

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

- src/voxel/voxeltreenode.h
- src/voxel/voxeltreenode.cpp

5.222 VoxelTreeQuery Class Reference

Collaboration diagram for VoxelTreeQuery:



Public Member Functions

- **VoxelTreeQuery** (VoxelTree *voxelTree, const AbstractShape *shape)
- bool **areVoxelsIntersecting** ()
- std::unordered_set< Voxel * > **intersectingVoxels** ()

Protected Member Functions

- void **query** (VoxelTreeNode *node, std::function< void(Voxel *)> onVoxelIntersection)

Protected Attributes

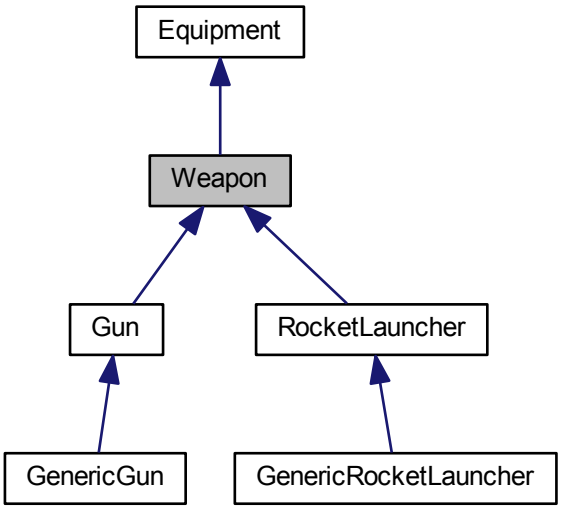
- VoxelTree * **m_voxelTree**
- const AbstractShape * **m_shape**
- bool **m_queryInterrupted**

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

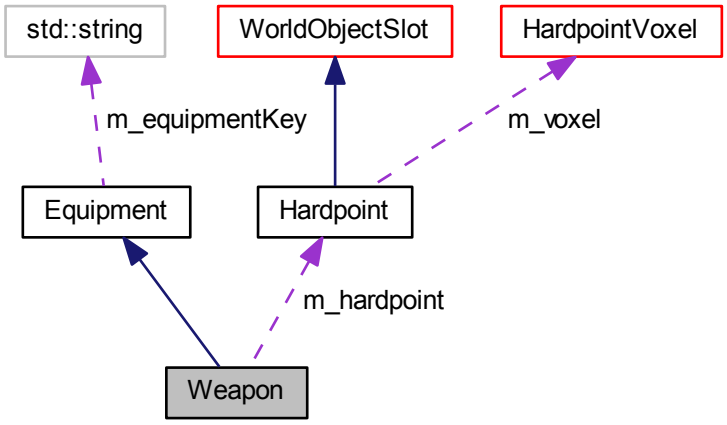
- src/voxel/voxeltreequery.h
- src/voxel/voxeltreequery.cpp

5.223 Weapon Class Reference

Inheritance diagram for Weapon:



Collaboration diagram for Weapon:



Public Member Functions

- **Weapon** (WeaponType type, const std::string &equipmentKey)
- virtual const Visuals & **visuals** () const =0
- Hardpoint * **hardpoint** ()
- void **setHardpoint** (Hardpoint *hardpoint)
- WeaponType **type** () const
- virtual float **cooldownTime** () const =0
- virtual void **update** (float deltaSec)
- bool **canFire** ()
- void **onFired** ()

Protected Attributes

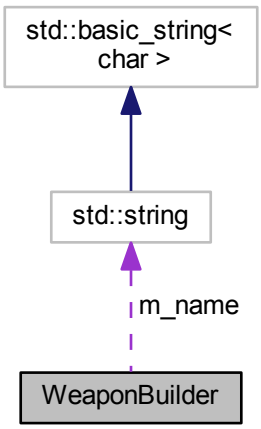
- Hardpoint * **m_hardpoint**
- WeaponType **m_type**
- float **m_cooldown**

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

- src/equipment/weapon.h
- src/equipment/weapon.cpp

5.224 WeaponBuilder Class Reference

Collaboration diagram for WeaponBuilder:



Public Member Functions

- **WeaponBuilder** (const std::string &name)
- Weapon * **build** ()
- GenericGun * **buildGenericGun** ()
- GenericRocketLauncher * **buildGenericRocketLauncher** ()

Protected Attributes

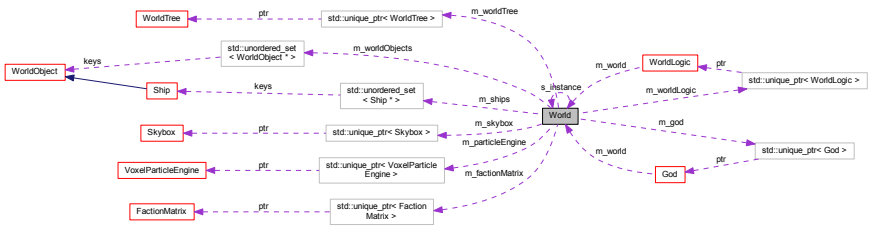
- const std::string & **m_name**

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

- src/resource/weaponbuilder.h
- src/resource/weaponbuilder.cpp

5.225 World Class Reference

Collaboration diagram for World:



Public Member Functions

- Skybox & **skybox** ()
- WorldLogic & **worldLogic** ()
- God & **god** ()
- WorldTree & **worldTree** ()
- VoxelParticleEngine & **particleEngine** ()
- FactionMatrix & **factionMatrix** ()
- std::unordered_set < WorldObject * > & **worldObjects** ()
- std::unordered_set< Ship * > & **ships** ()
- void **update** (float deltaSecs)
- float **deltaSec** () const

Static Public Member Functions

- static World * **instance** ()
- static void **reset** ()

Protected Member Functions

- void **addWorldObject** (WorldObject *worldObject)
- void **removeWorldObject** (WorldObject *worldObject)

Protected Attributes

- float **m_deltaSec**
- std::unique_ptr< Skybox > **m_skybox**
- std::unique_ptr< WorldTree > **m_worldTree**
- std::unique_ptr< WorldLogic > **m_worldLogic**
- std::unique_ptr< God > **m_god**
- std::unique_ptr < VoxelParticleEngine > **m_particleEngine**
- std::unique_ptr< FactionMatrix > **m_factionMatrix**
- std::unordered_set< WorldObject * > **m_worldObjects**
- std::unordered_set< Ship * > **m_ships**

Static Protected Attributes

- static World * **s_instance** = nullptr

Friends

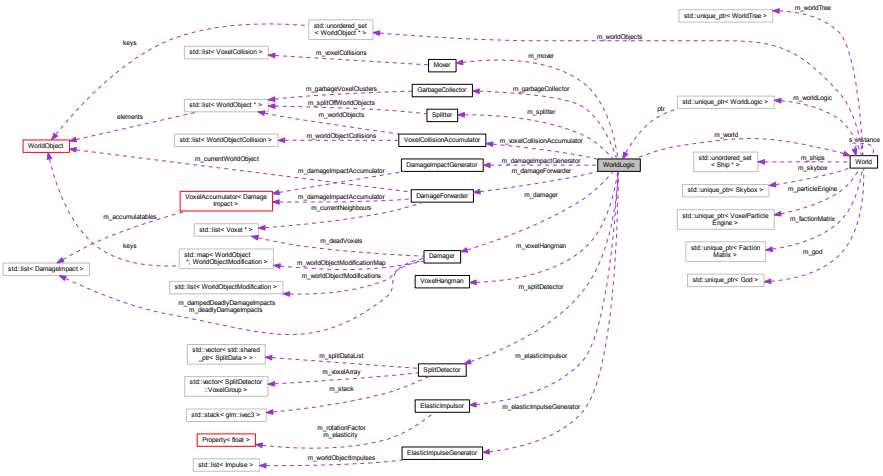
- class **God**

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

- src/world/world.h
- src/world/world.cpp

5.226 WorldLogic Class Reference

Collaboration diagram for WorldLogic:



Public Member Functions

- **WorldLogic** (World &world)
- void **update** (float deltaSecs)
- DamageForwarder & **damageForwarder** ()

Protected Member Functions

- void **damageForwardLoop** (std::list< DamageImpact > damageImpulses)

Protected Attributes

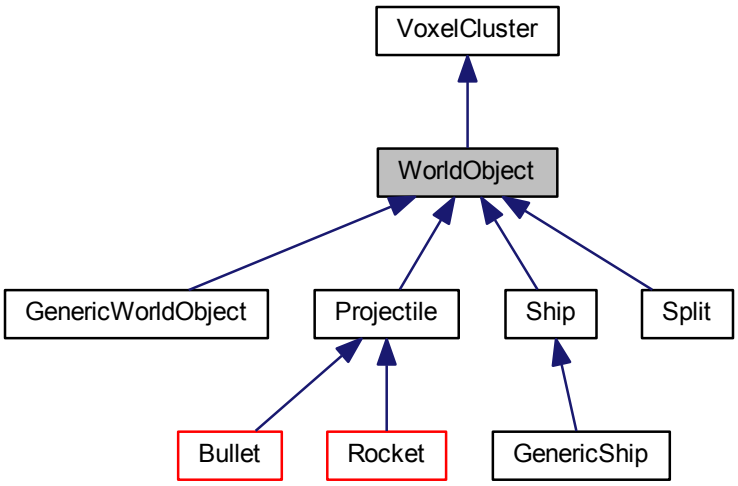
- World & **m_world**
- Mover **m_mover**
- VoxelCollisionAccumulator **m_voxelCollisionAccumulator**
- ElasticImpulseGenerator **m_elasticImpulseGenerator**
- ElasticImpulsor **m_elasticImpulsor**
- Damager **m_damager**
- DamageForwarder **m_damageForwarder**
- DamageImpactGenerator **m_damageImpactGenerator**
- SplitDetector **m_splitDetector**
- Splitter **m_splitter**
- GarbageCollector **m_garbageCollector**
- VoxelHangman **m_voxelHangman**

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

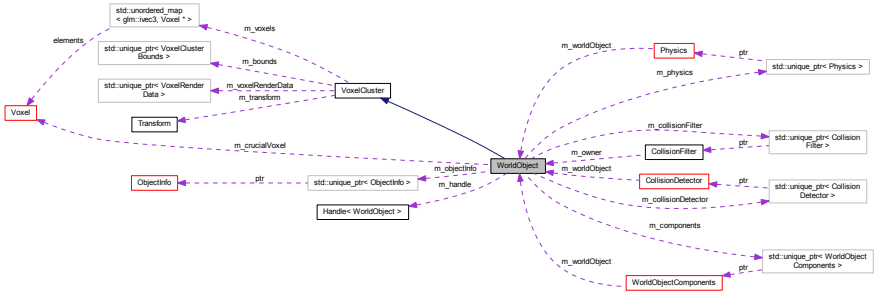
- src/world/worldlogic.h
- src/world/worldlogic.cpp

5.227 WorldObject Class Reference

Inheritance diagram for WorldObject:



Collaboration diagram for WorldObject:



Public Member Functions

- virtual WorldObjectType **objectType** () const
- SpawnState **spawnState** () const
- void **setSpawnState** (SpawnState spawnState)
- CollisionFilter & **collisionFilter** ()
- void **setCollisionFilter** (CollisionFilter ∗collisionFilter)
- CollisionDetector & **collisionDetector** ()
- Physics & **physics** ()
- const Physics & **physics** () const
- ObjectInfo & **objectInfo** ()
- WorldObjectComponents & **components** ()
- const WorldObjectComponents & **components** () const
- virtual void **update** (float deltaSec)

- virtual void **addVoxel** (Voxel *voxel) override
- virtual void **removeVoxel** (Voxel *voxel) override
- Voxel * **crucialVoxel** ()
- void **setCrucialVoxel** (const glm::ivec3 &cell)
- void **updateTransformAndGeode** (const glm::vec3 &position, const glm::quat &orientation)
- virtual void **onCollision** ()
- virtual void **onSpawnFail** ()
- Handle< WorldObject > & **handle** ()
- float **collisionFieldOfDamage** () const
- void **setCollisionFieldOfDamage** (float collisionFieldOfDamage)

Protected Member Functions

- **WorldObject** (CollisionFilter *collisionFilter, float scale=1.0f)

Protected Attributes

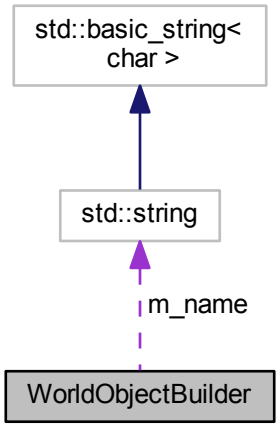
- std::unique_ptr< CollisionFilter > **m_collisionFilter**
- std::unique_ptr < CollisionDetector > **m_collisionDetector**
- std::unique_ptr< Physics > **m_physics**
- std::unique_ptr< ObjectInfo > **m_objectInfo**
- std::unique_ptr < WorldObjectComponents > **m_components**
- Handle< WorldObject > **m_handle**
- Voxel * **m_crucialVoxel**
- float **m_collisionFieldOfDamage**
- SpawnState **m_spawnState**

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

- src/worldobject/worldobject.h
- src/worldobject/worldobject.cpp

5.228 WorldObjectBuilder Class Reference

Collaboration diagram for WorldObjectBuilder:



Public Member Functions

- **WorldObjectBuilder** (const std::string &name)
- WorldObject * **build** ()
- Bullet * **buildBullet** ()
- Rocket * **buildRocket** ()
- Ship * **buildShip** ()
- WorldObject * **buildWorldObject** ()

Protected Member Functions

- template<typename WorldObjectType >
  WorldObjectType * **makeWorldObject** ()
- void **setupVoxelCluster** (WorldObject *worldObject)
- void **setupComponents** (WorldObjectComponents &components)
- void **setupHardpoints** (WorldObjectComponents &components)
- void **setupEngineSlots** (WorldObjectComponents &components)
- void **equipSomehow** (WorldObject *worldObject)

Protected Attributes

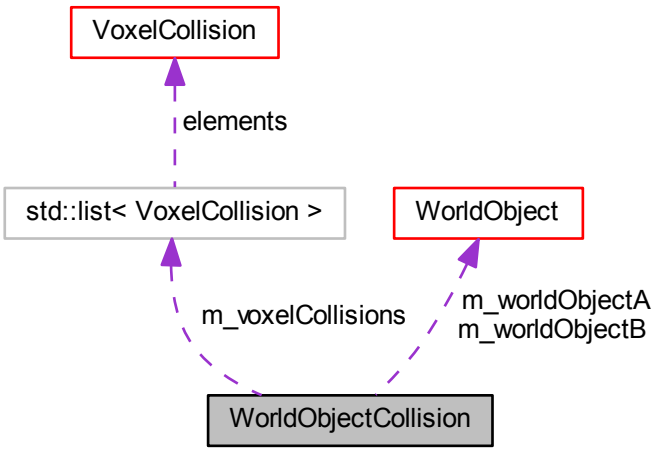
- std::string **m_name**

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

- src/resource/worldobjectbuilder.h
- src/resource/worldobjectbuilder.cpp

5.229 WorldObjectCollision Class Reference

Collaboration diagram for WorldObjectCollision:



Public Member Functions

- **WorldObjectCollision** (WorldObject *worldObjectA, WorldObject *worldObjectB)
- WorldObject * **worldObjectA** ()
- WorldObject * **worldObjectB** ()
- std::list< VoxelCollision > & **voxelCollisions** ()
- void **addVoxelCollision** (VoxelCollision &voxelCollision)

Protected Attributes

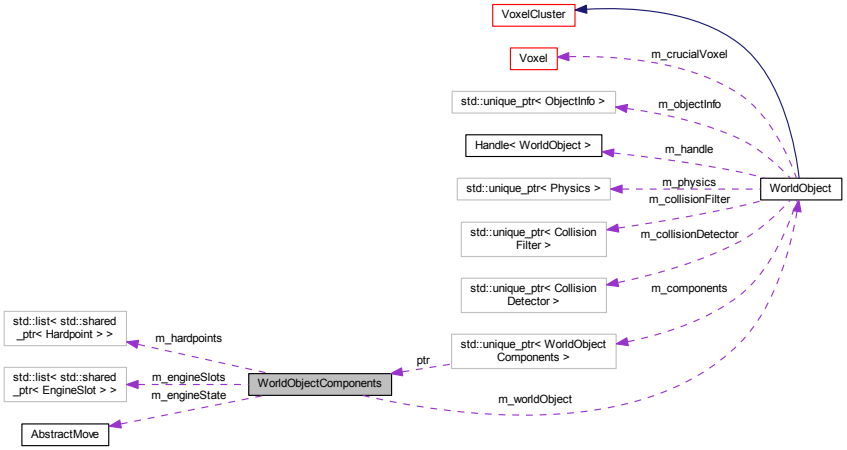
- WorldObject * **m_worldObjectA**
- WorldObject * **m_worldObjectB**
- std::list< VoxelCollision > **m_voxelCollisions**

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

- src/collision/worldobjectcollision.h
- src/collision/worldobjectcollision.cpp

5.230 WorldObjectComponents Class Reference

Collaboration diagram for WorldObjectComponents:



Public Member Functions

- **WorldObjectComponents** (WorldObject ∗worldObject)
- WorldObject ∗ **worldObject** ()
- const WorldObject ∗ **worldObject** () const
- void **addEngineSlot** (std::shared_ptr< EngineSlot > engineSlot)
- void **removeEngineSlot** (const EngineSlot ∗engineSlot)
- std::shared_ptr< EngineSlot > **engineSlot** (int index)
- std::list< std::shared_ptr < EngineSlot > > & **engineSlots** ()
- EnginePower **enginePower** () const
- Acceleration **currentAcceleration** () const
- const EngineState & **engineState** () const
- void **setEngineState** (const EngineState &engineState)
- void **addHardpoint** (std::shared_ptr< Hardpoint > hardpoint)
- void **removeHardpoint** (const Hardpoint ∗hardpoint)
- std::shared_ptr< Hardpoint > **hardpoint** (int index)
- std::list< std::shared_ptr < Hardpoint > > & **hardpoints** ()
- void **fireAtPoint** (const glm::vec3 &point)
- void **fireAtObject** (WorldObject ∗worldObject)
- void **update** (float deltaSec)

Protected Attributes

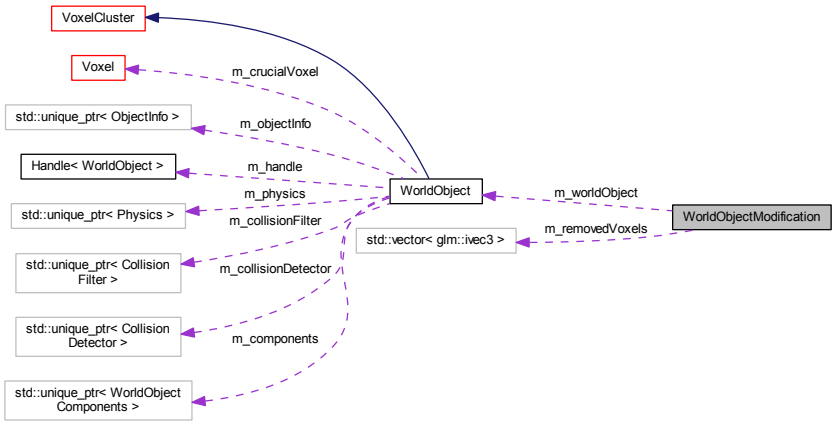
- WorldObject ∗ **m_worldObject**
- std::list< std::shared_ptr < EngineSlot > > **m_engineSlots**
- std::list< std::shared_ptr < Hardpoint > > **m_hardpoints**
- EngineState **m_engineState**

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

- src/worldobject/worldobjectcomponents.h
- src/worldobject/worldobjectcomponents.cpp

5.231 WorldObjectModification Class Reference

Collaboration diagram for WorldObjectModification:



Public Member Functions

- **WorldObjectModification** (WorldObject ∗worldObject)
- WorldObject ∗ **worldObject** ()
- void **removedVoxel** (const glm::ivec3 &pos)
- const std::vector< glm::ivec3 > & **removedVoxels** ()

Protected Attributes

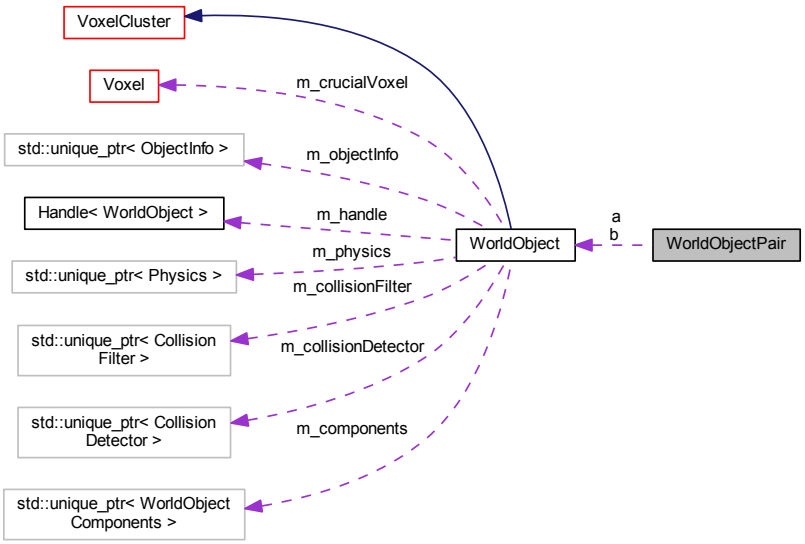
- WorldObject ∗ **m_worldObject**
- std::vector< glm::ivec3 > **m_removedVoxels**

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

- src/world/helper/worldobjectmodification.h
- src/world/helper/worldobjectmodification.cpp

5.232 WorldObjectPair Struct Reference

Collaboration diagram for WorldObjectPair:



Public Member Functions

- **WorldObjectPair** (WorldObject *a, WorldObject *b)
- bool **operator**< (const WorldObjectPair &other) const

Public Attributes

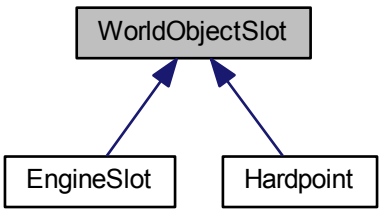
- WorldObject * **a**
- WorldObject * **b**

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

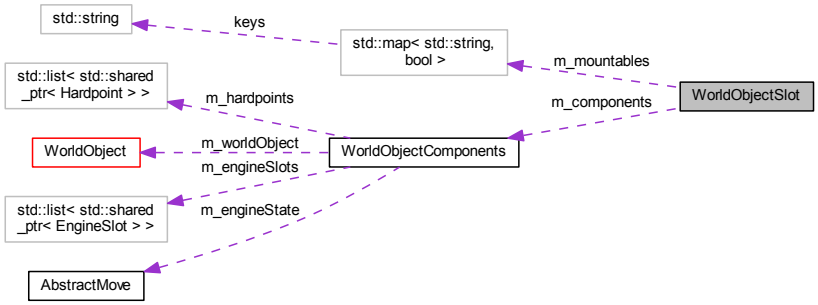
- src/world/handler/voxelcollisionaccumulator.cpp

5.233 WorldObjectSlot Class Reference

Inheritance diagram for WorldObjectSlot:



Collaboration diagram for WorldObjectSlot:



Public Member Functions

- **WorldObjectSlot** (WorldObjectComponents ∗components, int index)
- std::list< std::string > **mountables** () const
- bool **mountable** (const std::string &name) const
- void **setMountable** (const std::string &name, bool mountable)
- WorldObjectComponents ∗ **components** ()
- const WorldObjectComponents ∗ **components** () const
- int **index** () const

Protected Attributes

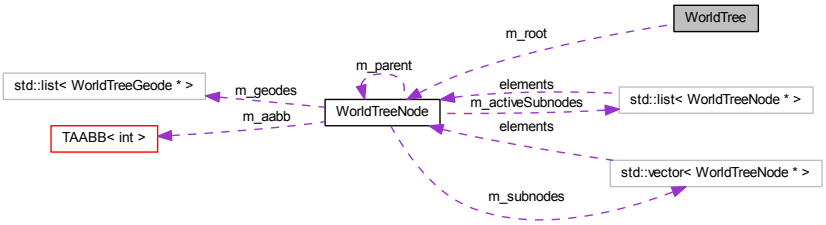
- WorldObjectComponents ∗ **m_components**
- std::map< std::string, bool > **m_mountables**
- int **m_index**

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

- src/equipment/worldobjectslot.h
- src/equipment/worldobjectslot.cpp

5.234 WorldTree Class Reference

Collaboration diagram for WorldTree:



Public Member Functions

- WorldTreeNode * **root** ()
- WorldTreeGeode * **insert** (WorldObject *worldObject)
- void **insert** (WorldTreeGeode *geode)
- void **remove** (WorldTreeGeode *geode)
- void **aabbChanged** (WorldTreeGeode *geode)

Protected Member Functions

- void **extend** (const IAABB &aabb)
- WorldTreeNode * **containingNode** (const IAABB &aabb, WorldTreeNode *node)

Protected Attributes

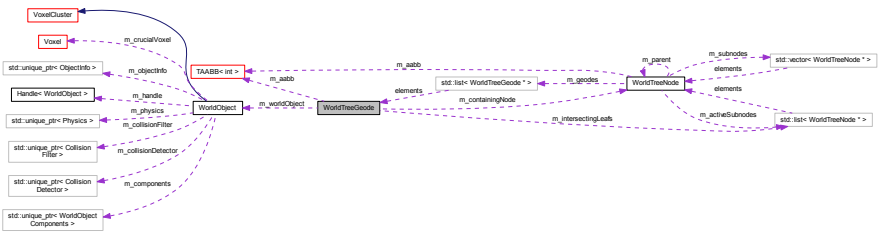
- WorldTreeNode * **m_root**

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

- src/worldtree/worldtree.h
- src/worldtree/worldtree.cpp

5.235 WorldTreeGeode Class Reference

Collaboration diagram for WorldTreeGeode:



Public Member Functions

- **WorldTreeGeode** (WorldObject *worldObject)
- WorldObject * **worldObject** ()
- const WorldObject * **worldObject** () const
- void **setWorldObject** (WorldObject *worldObject)
- WorldTreeNode * **containingNode** ()
- const WorldTreeNode * **containingNode** () const
- void **setContainingNode** (WorldTreeNode *node)
- const IAABB & **aabb** () const
- void **setAABB** (const IAABB &aabb)
- std::list< WorldTreeNode * > & **intersectingLeafs** ()
- void **addIntersectingLeaf** (WorldTreeNode *leaf)
- void **removeIntersectingLeaf** (WorldTreeNode *leaf)

Protected Attributes

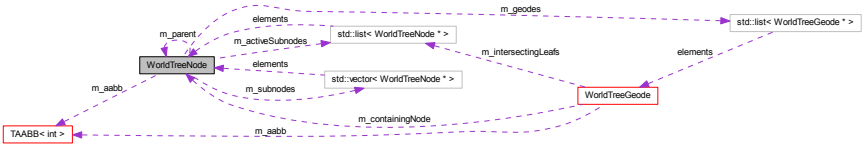
- WorldObject * **m_worldObject**
- WorldTreeNode * **m_containingNode**
- IAABB **m_aabb**
- std::list< WorldTreeNode * > **m_intersectingLeafs**

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

- src/worldtree/worldtreegeode.h
- src/worldtree/worldtreegeode.cpp

5.236 WorldTreeNode Class Reference

Collaboration diagram for WorldTreeNode:



Public Member Functions

- **WorldTreeNode** (int octIndex, WorldTreeNode *parent, const IAABB &aabb)
- **WorldTreeNode** (const IAABB &aabb, WorldTreeNode *initialSubnode)
- void **clear** ()
- int **octIndex** () const
- void **setOctIndex** (int octIndex)
- const IAABB & **aabb** () const
- WorldTreeNode * **parent** ()
- const WorldTreeNode * **parent** () const
- void **setParent** (WorldTreeNode *parent)
- bool **active** () const
- void **setActive** (bool active)

- const std::list < WorldTreeGeode * > & **geodes** () const
- const std::list< WorldTreeNode * > & **subnodes** () const
- bool **isLeaf** () const
- bool **isEmpty** () const
- bool **isRootnode** () const
- bool **isAtomic** () const
- void **insert** (WorldTreeGeode *geode)
- void **remove** (WorldTreeGeode *geode)

Protected Member Functions

- void **toGroup** (WorldTreeNode *initialSubnode=nullptr)
- void **subnodeActivated** (WorldTreeNode *subnode)
- void **subnodeDeactivated** (WorldTreeNode *subnode)

Protected Attributes

- WorldTreeNode * **m_parent**
- IAABB **m_aabb**
- int **m_octIndex**
- float **m_extent**
- bool **m_active**
- std::list< WorldTreeGeode * > **m_geodes**
- std::vector< WorldTreeNode * > **m_subnodes**
- std::list< WorldTreeNode * > **m_activeSubnodes**

Static Protected Attributes

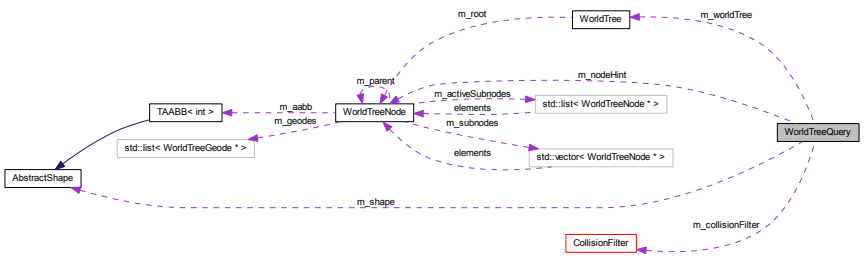
- static const int **MIN_EXTENT** = 16
- static const int **MAX_GEODES** = 4

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

- src/worldtree/worldtreenode.h
- src/worldtree/worldtreenode.cpp

5.237 WorldTreeQuery Class Reference

Collaboration diagram for WorldTreeQuery:



Public Member Functions

- **WorldTreeQuery** (WorldTree *worldTree, const AbstractShape *shape, WorldTreeNode *nodeHint=nullptr, CollisionFilter *collisionFilter=nullptr)
- bool **areGeodesNear** ()
- std::unordered_set < WorldTreeGeode * > **nearGeodes** ()
- bool **areVoxelsIntersecting** ()
- std::unordered_set< Voxel * > **intersectingVoxels** ()
- std::unordered_set< WorldObject * > **intersectingWorldObjects** ()

Protected Member Functions

- WorldTreeNode * **getQueryRoot** (WorldTreeNode *node=nullptr) const
- void **query** (WorldTreeNode *node, std::function< void(WorldTreeGeode *)> onGeodeInteraction)

Protected Attributes

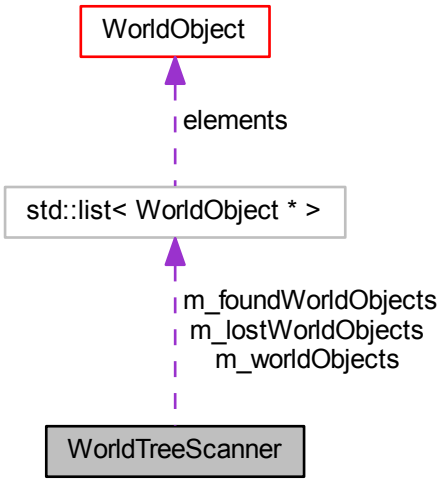
- WorldTree * **m_worldTree**
- WorldTreeNode * **m_nodeHint**
- CollisionFilter * **m_collisionFilter**
- const AbstractShape * **m_shape**
- bool **m_queryInterrupted**

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

- src/worldtree/worldtreequery.h
- src/worldtree/worldtreequery.cpp

5.238 WorldTreeScanner Class Reference

Collaboration diagram for WorldTreeScanner:



Public Member Functions

- float **scanInterval** () const
- void **setScanInterval** (float scanInterval)
- float **scanRadius** () const
- void **setScanRadius** (float scanRadius)
- const std::list< WorldObject * > & **worldObjects** ()
- const std::list< WorldObject * > & **foundWorldObjects** ()
- const std::list< WorldObject * > & **lostWorldObjects** ()
- void **update** (float deltaSec, WorldObject *worldObject)
- void **update** (float deltaSec, const glm::vec3 &position)
- virtual void **onFoundWorldObject** (WorldObject *worldObject)
- virtual void **onLostWorldObject** (WorldObject *worldObject)

Protected Member Functions

- void **update** (float deltaSec, WorldObject *worldObject, const glm::vec3 &position)
- void **scan** (WorldObject *worldObject, const glm::vec3 &position)
- void **callHooks** ()

Protected Attributes

- float **m_scanInterval**
- float **m_scanCountdown**
- float **m_scanRadius**
- std::list< WorldObject * > **m_worldObjects**
- std::list< WorldObject * > **m_foundWorldObjects**
- std::list< WorldObject * > **m_lostWorldObjects**

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

- src/worldtree/worldtreescanner.h
- src/worldtree/worldtreescanner.cpp

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