

Gaffer Node Reference

image engine version 0.89.0, 2014

Gaffer

Backdrop

A utility node which allows the positioning of other nodes on a coloured backdrop with optional text. Selecting a backdrop in the ui selects all the nodes positioned on it, and moving it moves them with it.

Plugs:

description

```
Gaffer::StringPlug
```

Text describing the contents of the backdrop - this will be displayed below the title.

scale

```
Gaffer::FloatPlug
```

Controls the size of the backdrop text.

title

```
Gaffer::StringPlug
```

The title for the backdrop - this will be displayed at the top of the backdrop.

Box

!!!*EMPTY*!!!

ContextVariablesComputeNode

!!!*EMPTY*!!!

Plugs:

enabled

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

variables

```
Gaffer::CompoundDataPlug
```

!!!*EMPTY*!!!

ExecutableOpHolder

!!!*EMPTY*!!!

Plugs:

despatcherParameters

```
Gaffer::CompoundPlug
```

!!!*EMPTY*!!!

requirement

Gaffer::Plug

```
!!!EMPTY!!!
```

requirements

Gaffer::ArrayPlug

!!!*EMPTY*!!!

Expression

!!!*EMPTY*!!!

Plugs:

engine

Gaffer::StringPlug
!!!EMPTY!!!

expression

Gaffer::StringPlug

!!!*EMPTY*!!!

ObjectReader

!!!*EMPTY*!!!

Plugs:

fileName

Gaffer::StringPlug

!!!*EMPTY*!!!

out

Gaffer::ObjectPlug

!!!*EMPTY*!!!

parameters

Gaffer::CompoundPlug

!!!*EMPTY*!!!

ObjectWriter

!!!*EMPTY*!!!

Plugs:

despatcherParameters

Gaffer::CompoundPlug

!!!*EMPTY*!!!

fileName

Gaffer::StringPlug

OpHolder

!!!*EMPTY*!!!

Plugs:

${\bf Parameter is ed Holder Dependency Node}$

!!!*EMPTY*!!!

Plugs:

Preferences

!!!*EMPTY*!!!

ProceduralHolder

!!!*EMPTY*!!!

Plugs:

output

Gaffer::ObjectPlug
!!!EMPTY!!!

Random

!!!*EMPTY*!!!

Plugs:

```
baseColor
     Gaffer::Color3fPlug
     !!!EMPTY!!!
contextEntry
     Gaffer::StringPlug
     !!!EMPTY!!!
floatRange
     Gaffer::V2fPlug
    !!!EMPTY!!!
hue
     Gaffer::FloatPlug
     !!!EMPTY!!!
outColor
     Gaffer::Color3fPlug
     !!!EMPTY!!!
outFloat
     Gaffer::FloatPlug
     !!!EMPTY!!!
saturation
     Gaffer::FloatPlug
     !!!EMPTY!!!
seed
     Gaffer::IntPlug
     !!!EMPTY!!!
value
     Gaffer::FloatPlug
     !!!EMPTY!!!
Reference
!!!EMPTY!!!
Plugs:
fileName
     Gaffer::StringPlug
```

ScriptNode

!!!*EMPTY*!!!

!!!*EMPTY*!!!

Plugs:

```
fileName
    Gaffer::StringPlug
    !!!EMPTY!!!
frameRange
    Gaffer::CompoundPlug
    !!!EMPTY!!!
unsavedChanges
    Gaffer::BoolPlug
    !!!EMPTY!!!
variables
    Gaffer::CompoundDataPlug
    !!!EMPTY!!!
SwitchComputeNode
!!!EMPTY!!!
Plugs:
enabled
    Gaffer::BoolPlug
    !!!EMPTY!!!
index
    Gaffer::IntPlug
    !!!EMPTY!!!
TimeWarpComputeNode
!!!EMPTY!!!
Plugs:
enabled
    Gaffer::BoolPlug
    !!!EMPTY!!!
```

offset

speed

Gaffer::FloatPlug

Gaffer::FloatPlug

!!!*EMPTY*!!!

GafferArnold

ArnoldAttributes

The base type for nodes that apply attributes to the scene.

Plugs:

attributes

```
Gaffer::CompoundDataPlug
```

The attributes to be applied - arbitrary numbers of user defined attributes may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

cameraVisibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

shadowVisibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

reflectedVisibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

refractedVisibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

diffuseVisibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

glossyVisibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

subdivIterations.value

```
Gaffer::IntPlug
!!!EMPTY!!!
```

subdivPixelError.value

```
Gaffer::FloatPlug
!!!EMPTY!!!
```

subdivAdaptiveMetric.value

```
Gaffer::StringPlug
!!!EMPTY!!!
```

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

```
filter
```

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

out

```
GafferScene::ScenePlug
```

The processed output scene.

ArnoldLight

Creates a scene with a single light in it.

Plugs:

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs an empty scene.

name

```
Gaffer::StringPlug
```

The name of the object in the output scene.

out

```
GafferScene::ScenePlug
```

The output scene.

parameters

```
Gaffer::CompoundPlug
```

The parameters of the light shader - these will vary based on the light type.

transform

```
Gaffer::TransformPlug
```

The transform applied to the object.

translate

```
Gaffer::V3fPlug
```

!!!*EMPTY*!!!

rotate

Gaffer::V3fPlug

!!!*EMPTY*!!!

scale

Gaffer::V3fPlug

!!!*EMPTY*!!!

pivot

Gaffer::V3fPlug

ArnoldOptions

The base type for nodes that apply options to the scene.

Plugs:

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

```
GafferScene::ScenePlug
```

The input scene.

options

```
Gaffer::CompoundDataPlug
```

The options to be applied - arbitrary numbers of user defined options may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

aaSamples.value

```
Gaffer::IntPlug
```

!!!*EMPTY*!!!

giDiffuseSamples.value

Gaffer::IntPlug

!!!*EMPTY*!!!

giGlossySamples.value

Gaffer::IntPlug

!!!*EMPTY*!!!

giRefractionSamples.value

Gaffer::IntPlug

!!!*EMPTY*!!!

ignoreTextures.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreShaders.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreAtmosphere.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreLights.value

Gaffer::BoolPlug

!!!*FMPTY*!!!

ignoreShadows.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreSubdivision.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreDisplacement.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreBump.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreMotionBlur.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

ignoreSSS.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

textureSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

proceduralSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

shaderSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

errorColorBadTexture.value

Gaffer::Color3fPlug

!!!*EMPTY*!!!

errorColorBadMesh.value

Gaffer::Color3fPlug

!!!*EMPTY*!!!

errorColorBadPixel.value

Gaffer::Color3fPlug

!!!*EMPTY*!!!

errorColorBadShader.value

Gaffer::Color3fPlug

!!!*EMPTY*!!!

out

GafferScene::ScenePlug

The processed output scene.

ArnoldRender

A base class for nodes which can render scenes.

Plugs:

```
despatcherParameters
```

```
Gaffer::CompoundPlug
!!!EMPTY!!!
```

fileName

```
Gaffer::StringPlug
!!!EMPTY!!!
```

in

GafferScene::ScenePlug

The scene to be rendered.

mode

```
Gaffer::StringPlug
!!!EMPTY!!!
```

requirement

```
Gaffer::Plug
!!!EMPTY!!!
```

requirements

```
Gaffer::ArrayPlug
!!!EMPTY!!!
```

requirement0

Gaffer::Plug
!!!*EMPTY*!!!

verbosity

```
Gaffer::IntPlug
!!!EMPTY!!!
```

ArnoldShader

The base type for all nodes which create shaders. Use the ShaderAssignment node to assign them to objects in the scene.

Plugs:

enabled

```
Gaffer::BoolPlug
```

name

```
Gaffer::StringPlug
```

The name of the shader being represented. This should be considered read-only. Use the Shader.loadShader() method to load a shader.

parameters

Gaffer::CompoundPlug

Where the parameters for the shader are represented.

type

Gaffer::StringPlug

GafferImage

Clamp !!!*EMPTY*!!! Plugs: channels GafferImage::ChannelMaskPlug !!!*EMPTY*!!! enabled Gaffer::BoolPlug !!!*EMPTY*!!! in GafferImage::ImagePlug !!!*EMPTY*!!! max Gaffer::Color4fPlug !!!*EMPTY*!!! maxClampToGaffer::Color4fPlug !!!*EMPTY*!!! ${\tt maxClampToEnabled}$ Gaffer::BoolPlug !!!*EMPTY*!!! maxEnabled Gaffer::BoolPlug !!!*EMPTY*!!! min Gaffer::Color4fPlug !!!*EMPTY*!!! minClampTo Gaffer::Color4fPlug !!!*EMPTY*!!! minClampToEnabled Gaffer::BoolPlug !!!*EMPTY*!!! minEnabled Gaffer::BoolPlug

```
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
Constant
!!!EMPTY!!!
Plugs:
color
     Gaffer::Color4fPlug
     !!!EMPTY!!!
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
format
     GafferImage::FormatPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
Display
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
    !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
port
     Gaffer::IntPlug
     !!!EMPTY!!!
Grade
!!!EMPTY!!!
Plugs:
blackClamp
     Gaffer::BoolPlug
```

```
!!!EMPTY!!!
blackPoint
     Gaffer::Color3fPlug
     !!!EMPTY!!!
channels
     GafferImage::ChannelMaskPlug
     !!!EMPTY!!!
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
gain
     Gaffer::Color3fPlug
     !!!EMPTY!!!
gamma
     Gaffer::Color3fPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
lift
     Gaffer::Color3fPlug
     !!!EMPTY!!!
multiply
     Gaffer::Color3fPlug
     !!!EMPTY!!!
offset
     Gaffer::Color3fPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
whiteClamp
     Gaffer::BoolPlug
     !!!EMPTY!!!
whitePoint
     Gaffer::Color3fPlug
     !!!EMPTY!!!
```

ImageContextVariables

```
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
variables
     Gaffer::CompoundDataPlug
     !!!EMPTY!!!
ImageReader
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
fileName
     Gaffer::StringPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
ImageSampler
!!!EMPTY!!!
Plugs:
color
     Gaffer::Color4fPlug
     !!!EMPTY!!!
filter
     GafferImage::FilterPlug
     !!!EMPTY!!!
image
     GafferImage::ImagePlug
     !!!EMPTY!!!
```

```
pixel
     Gaffer::V2fPlug
     !!!EMPTY!!!
ImageStats
!!!EMPTY!!!
Plugs:
average
     Gaffer::Color4fPlug
     !!!EMPTY!!!
channels
     GafferImage::ChannelMaskPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
max
     Gaffer::Color4fPlug
     !!!EMPTY!!!
min
     Gaffer::Color4fPlug
     !!!EMPTY!!!
region Of Interest\\
     Gaffer::Box2iPlug
     !!!EMPTY!!!
ImageSwitch
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
index
     Gaffer::IntPlug
     !!!EMPTY!!!
```

```
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
ImageTimeWarp
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
offset
     Gaffer::FloatPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
speed
     Gaffer::FloatPlug
     !!!EMPTY!!!
ImageTransform
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
filter
     GafferImage::FilterPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
```

```
Gaffer::Transform2DPlug
     !!!EMPTY!!!
     translate
          Gaffer::V2fPlug
          !!!EMPTY!!!
          X
               Gaffer::FloatPlug
               !!!EMPTY!!!
               Gaffer::FloatPlug
               !!!EMPTY!!!
     rotate
          Gaffer::FloatPlug
          !!!EMPTY!!!
     scale
          Gaffer::V2fPlug
          !!!EMPTY!!!
          X
               Gaffer::FloatPlug
               !!!EMPTY!!!
          у
               Gaffer::FloatPlug
               !!!EMPTY!!!
     pivot
          Gaffer::V2fPlug
          !!!EMPTY!!!
          X
               Gaffer::FloatPlug
               !!!EMPTY!!!
          у
               Gaffer::FloatPlug
               !!!EMPTY!!!
ImageWriter
!!!EMPTY!!!
Plugs:
channels
     GafferImage::ChannelMaskPlug
     !!!EMPTY!!!
```

transform

```
despatcherParameters
     Gaffer::CompoundPlug
     !!!EMPTY!!!
fileName
     Gaffer::StringPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
requirement
     Gaffer::Plug
     !!!EMPTY!!!
requirements
     Gaffer::ArrayPlug
     !!!EMPTY!!!
writeMode
     Gaffer::IntPlug
     !!!EMPTY!!!
Мегде
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
in1
     GafferImage::ImagePlug
     !!!EMPTY!!!
operation
     Gaffer::IntPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
```

ObjectToImage

```
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
object
     Gaffer::ObjectPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
OpenColorIO
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
inputSpace
     Gaffer::StringPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
outputSpace
     Gaffer::StringPlug
     !!!EMPTY!!!
Reformat
!!!EMPTY!!!
Plugs:
enabled
```

Gaffer::BoolPlug

```
!!!EMPTY!!!
filter
     GafferImage::FilterPlug
     !!!EMPTY!!!
format
     GafferImage::FormatPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
RemoveChannels
!!!EMPTY!!!
Plugs:
channels
     GafferImage::ChannelMaskPlug
     !!!EMPTY!!!
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
in
     GafferImage::ImagePlug
     !!!EMPTY!!!
mode
     Gaffer::IntPlug
     !!!EMPTY!!!
out
     GafferImage::ImagePlug
     !!!EMPTY!!!
Select
!!!EMPTY!!!
Plugs:
enabled
     Gaffer::BoolPlug
     !!!EMPTY!!!
```

```
in
    GafferImage::ImagePlug
    !!!EMPTY!!!
in1
    GafferImage::ImagePlug
    !!!EMPTY!!!

out
    GafferImage::ImagePlug
    !!!EMPTY!!!
```

Gaffer::IntPlug

GafferOSL

OSLImage

Executes OSL shaders to perform image processing.

```
Plugs:
```

enabled

Gaffer::BoolPlug
!!!EMPTY!!!

in

GafferImage::ImagePlug

!!!*EMPTY*!!!

out

GafferImage::ImagePlug

!!!*EMPTY*!!!

shader

Gaffer::Plug

The shader to be executed - connect the output from an OSL network here.

OSLObject

Executes OSL shaders to perform object processing.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

shader

Gaffer::Plug

The shader to be executed - connect the output from an OSL network here.

OSLShader

Represents OSL shaders.

Plugs:

enabled

Gaffer::BoolPlug
!!!EMPTY!!!

name

Gaffer::StringPlug

The name of the shader being represented. This should be considered read-only. Use the Shader.loadShader() method to load a shader.

parameters

Gaffer::CompoundPlug

Where the parameters for the shader are represented.

type

Gaffer::StringPlug

GafferRenderMan

InteractiveRenderManRender

A base class for nodes which can render scenes interactively, updating the render to reflect changes to the node graph.

Plugs:

in

GafferScene::ScenePlug
The scene to be rendered.

state

Gaffer::IntPlug

The interactive state.

updateLights

Gaffer::BoolPlug

When on, changes to lights are reflected in the interactive render.

updateShaders

Gaffer::BoolPlug

RenderManAttributes

The base type for nodes that apply attributes to the scene.

Plugs:

attributes

Gaffer::CompoundDataPlug

The attributes to be applied - arbitrary numbers of user defined attributes may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

cameraVisibility.value

Gaffer::BoolPlug

cameraHitMode.value

!!!*EMPTY*!!!

Gaffer::StringPlug

transmissionVisibility.value

Gaffer::BoolPlug
!!!EMPTY!!!

transmissionHitMode.value

Gaffer::StringPlug

diffuseVisibility.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

diffuseHitMode.value

Gaffer::StringPlug

!!!*EMPTY*!!!

specularVisibility.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

specularHitMode.value

Gaffer::StringPlug

!!!*EMPTY*!!!

photonVisibility.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

photonHitMode.value

Gaffer::StringPlug

!!!*EMPTY*!!!

shadingRate.value

Gaffer::FloatPlug

!!!*EMPTY*!!!

relativeShadingRate.value

Gaffer::FloatPlug

!!!*EMPTY*!!!

matte.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

displacementBound.value

Gaffer::FloatPlug

!!!*EMPTY*!!!

maxDiffuseDepth.value

Gaffer::IntPlug

!!!*EMPTY*!!!

maxSpecularDepth.value

Gaffer::IntPlug

!!!*EMPTY*!!!

traceDisplacements.value

Gaffer::BoolPlug

```
enabled
```

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

out

```
GafferScene::ScenePlug
```

The processed output scene.

RenderManLight

Creates a scene with a single light in it.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs an empty scene.

name

```
Gaffer::StringPlug
```

The name of the object in the output scene.

out

```
GafferScene::ScenePlug
```

The output scene.

parameters

```
Gaffer::CompoundPlug
```

The parameters of the light shader - these will vary based on the light type.

transform

```
Gaffer::TransformPlug
```

The transform applied to the object.

translate

```
Gaffer::V3fPlug
```

!!!*EMPTY*!!!

rotate

```
Gaffer::V3fPlug
```

!!!*EMPTY*!!!

scale

```
Gaffer::V3fPlug
```

pivot

Gaffer::V3fPlug
!!!*EMPTY*!!!

RenderManOptions

The base type for nodes that apply options to the scene.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

options

Gaffer::CompoundDataPlug

The options to be applied - arbitrary numbers of user defined options may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

pixelSamples.value

Gaffer::V2iPlug

!!!*EMPTY*!!!

hider.value

Gaffer::StringPlug

!!!*EMPTY*!!!

hiderDepthFilter.value

Gaffer::StringPlug

!!!*EMPTY*!!!

hiderJitter.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

hiderSampleMotion.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

hiderExtremeMotionDOF.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

hiderProgressive.value

Gaffer::BoolPlug

!!!*FMPTY*!!!

statisticsLevel.value

Gaffer::IntPlug

```
!!!EMPTY!!!
```

statisticsFileName.value

Gaffer::StringPlug

!!!*EMPTY*!!!

statisticsProgress.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

shaderSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

textureSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

displaySearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

archiveSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

proceduralSearchPath.value

Gaffer::StringPlug

!!!*EMPTY*!!!

out

GafferScene::ScenePlug

The processed output scene.

RenderManRender

A base class for nodes which can render scenes.

Plugs:

despatcherParameters

Gaffer::CompoundPlug

!!!*EMPTY*!!!

in

GafferScene::ScenePlug

The scene to be rendered.

mode

Gaffer::StringPlug

requirement

```
Gaffer::Plug
!!!EMPTY!!!
```

requirements

```
Gaffer::ArrayPlug
!!!EMPTY!!!
```

requirement0

Gaffer::Plug
!!!*EMPTY*!!!

ribFileName

```
Gaffer::StringPlug
!!!EMPTY!!!
```

RenderManShader

Loads shaders for use in RenderMan renderers. Use the ShaderAssignment node to assign shaders to objects in the scene.

Plugs:

enabled

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

name

```
Gaffer::StringPlug
```

The name of the shader being represented. This should be considered read-only. Use the Shader.loadShader() method to load a shader.

out

```
Gaffer::Plug
!!!EMPTY!!!
```

parameters

```
Gaffer::CompoundPlug
```

Where the parameters for the shader are represented.

type

```
Gaffer::StringPlug
!!!EMPTY!!!
```

GafferScene

AimConstraint

The base type for scene processors which use a Filter node to control which part of the scene is affected.

```
Plugs:
```

```
aim
```

Gaffer::V3fPlug
!!!*EMPTY*!!!

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug
The input scene.

out

GafferScene::ScenePlug
The processed output scene.

target

Gaffer::StringPlug
!!!EMPTY!!!

targetMode

Gaffer::IntPlug
!!!*EMPTY*!!!

targetOffset

Gaffer::V3fPlug
!!!*EMPTY*!!!

uр

Gaffer::V3fPlug
!!!*EMPTY*!!!

AlembicSource

The base type for all nodes which are capable of generating a hierarchical scene.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs an empty scene.

fileName

```
Gaffer::StringPlug
!!!EMPTY!!!
```

out

GafferScene::ScenePlug
The output scene.

refreshCount

```
Gaffer::IntPlug
!!!EMPTY!!!
```

AttributeCache

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

fileName

```
Gaffer::StringPlug
!!!EMPTY!!!
```

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
The input scene.
```

out

```
GafferScene::ScenePlug
The processed output scene.
```

Camera

A node which produces scenes with exactly one object in them.

Plugs:

clippingPlanes

```
Gaffer::V2fPlug
!!!EMPTY!!!

x
     Gaffer::FloatPlug
!!!EMPTY!!!
```

```
Gaffer::FloatPlug
          !!!EMPTY!!!
enabled
     Gaffer::BoolPlug
     The on/off state of the node. When it is off, the node outputs an empty scene.
fieldOfView
     Gaffer::FloatPlug
     !!!EMPTY!!!
name
     Gaffer::StringPlug
     The name of the object in the output scene.
out
     GafferScene::ScenePlug
     The output scene.
projection
     Gaffer::StringPlug
     !!!EMPTY!!!
transform
     Gaffer::TransformPlug
     The transform applied to the object.
     translate
          Gaffer::V3fPlug
          !!!EMPTY!!!
     rotate
          Gaffer::V3fPlug
          !!!EMPTY!!!
     scale
          Gaffer::V3fPlug
          !!!EMPTY!!!
     pivot
          Gaffer::V3fPlug
          !!!EMPTY!!!
```

у

Cube

A node which produces scenes containing a cube.

Plugs:

dimensions

```
Gaffer::V3fPlug
```

Controls size of the cube.

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs an empty scene.

name

```
Gaffer::StringPlug
```

The name of the object in the output scene.

out

```
GafferScene::ScenePlug
```

The output scene.

transform

```
Gaffer::TransformPlug
```

The transform applied to the object.

translate

```
Gaffer::V3fPlug
```

!!!*EMPTY*!!!

rotate

Gaffer::V3fPlug

!!!*EMPTY*!!!

scale

Gaffer::V3fPlug

!!!*EMPTY*!!!

pivot

Gaffer::V3fPlug

!!!*EMPTY*!!!

CustomAttributes

Applies arbitrary user-defined attributes to locations in the scene. Note that for most common cases the StandardAttributes, OpenGLAttributes, RenderManAttributes, and ArnoldAttributes nodes should be used in preference - they provide predefined sets of attributes with customised user interfaces. The CustomAttributes node is of most use when needing to set a custom attribute not supported by the specialised nodes.

Plugs:

attributes

```
Gaffer::CompoundDataPlug
```

The attributes to be applied - arbitrary numbers of user defined attributes may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

CustomOptions

Applies arbitrary user-defined options to the root of the scene. Note that for most common cases the StandardOptions, OpenGLOptions, RenderManOptions, and ArnoldOptions nodes should be used in preference - they provide predefined sets of options with customised user interfaces. The CustomOptions node is of most use when needing to set a custom option not supported by the specialised nodes.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

options

Gaffer::CompoundDataPlug

The options to be applied - arbitrary numbers of user defined options may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

out

GafferScene::ScenePlug

The processed output scene.

DeleteAttributes

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug

The input scene.

invertNames

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

names

```
Gaffer::StringPlug
!!!EMPTY!!!
```

out

GafferScene::ScenePlug
The processed output scene.

DeletePrimitiveVariables

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
The input scene.
```

invertNames

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

names

```
Gaffer::StringPlug
!!!EMPTY!!!
```

out

```
GafferScene::ScenePlug
```

The processed output scene.

Displays

The base type for all nodes which take an input scene and process it in some way.

Plugs:

displays

```
Gaffer::CompoundPlug
```

```
enabled
```

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

```
GafferScene::ScenePlug
```

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

Group

The base type for all nodes which take an input scene and process it in some way.

Plugs:

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

name

Gaffer::StringPlug

!!!*EMPTY*!!!

out

GafferScene::ScenePlug

The processed output scene.

transform

Gaffer::TransformPlug

!!!*EMPTY*!!!

translate

Gaffer::V3fPlug

!!!*EMPTY*!!!

rotate

Gaffer::V3fPlug

!!!*EMPTY*!!!

scale

Gaffer::V3fPlug

!!!*EMPTY*!!!

pivot

Gaffer::V3fPlug

Instancer

The base type for all nodes which take an input scene and process it in some way.

```
Plugs:
```

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

```
GafferScene::ScenePlug
The input scene.
```

instance

```
GafferScene::ScenePlug
```

!!!*EMPTY*!!!

name

```
Gaffer::StringPlug
!!!EMPTY!!!
```

out

```
GafferScene::ScenePlug
The processed output scene.
```

parent

```
Gaffer::StringPlug
!!!EMPTY!!!
```

Isolate

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

adjustBounds

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

MapOffset

Adds an offset to object texture coordinates. Provides a convenient way of looking at specific texture UDIMs.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

offset

```
Gaffer::V2fPlug
```

An offset added to the texture coordinates. Note that moving the texture coordinates in the positive direction will move the texture in the negative direction.

X

```
Gaffer::FloatPlug
```

!!!*EMPTY*!!!

у

Gaffer::FloatPlug

!!!*EMPTY*!!!

out

GafferScene::ScenePlug

The processed output scene.

sName

Gaffer::StringPlug

The name of the primitive variable holding the s coordinate.

tName

Gaffer::StringPlug

The name of the primitive variable holding the t coordinate.

udim

Gaffer::IntPlug

A specific UDIM to offset the texture coordinates to. The UDIM is converted to an offset which is added to the offset above.

MapProjection

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

camera

```
Gaffer::StringPlug
!!!EMPTY!!!
```

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
The input scene.
```

out

```
GafferScene::ScenePlug
The processed output scene.
```

sName

```
Gaffer::StringPlug
!!!EMPTY!!!
```

tName

```
Gaffer::StringPlug
!!!EMPTY!!!
```

MeshType

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

calculatePolygonNormals

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

```
in
```

```
GafferScene::ScenePlug
```

The input scene.

meshType

```
Gaffer::StringPlug
!!!EMPTY!!!
```

out

GafferScene::ScenePlug
The processed output scene.

$overwrite {\bf Existing Normals}$

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

ObjectToScene

A node which produces scenes with exactly one object in them.

Plugs:

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs an empty scene.

name

```
Gaffer::StringPlug
```

The name of the object in the output scene.

object

```
Gaffer::ObjectPlug
!!!EMPTY!!!
```

out

```
GafferScene::ScenePlug
```

The output scene.

transform

```
Gaffer::TransformPlug
```

The transform applied to the object.

translate

```
Gaffer::V3fPlug
!!!EMPTY!!!
```

rotate

```
Gaffer::V3fPlug
!!!EMPTY!!!
```

scale

```
Gaffer::V3fPlug
!!!EMPTY!!!
```

pivot

Gaffer::V3fPlug
!!!*EMPTY*!!!

OpenGLAttributes

The base type for nodes that apply attributes to the scene.

Plugs:

attributes

Gaffer::CompoundDataPlug

The attributes to be applied - arbitrary numbers of user defined attributes may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

primitiveSolid.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

primitiveWireframe.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

primitiveWireframeColor.value

Gaffer::Color4fPlug

!!!*EMPTY*!!!

primitiveWireframeWidth.value

Gaffer::FloatPlug

!!!*EMPTY*!!!

primitiveOutline.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

primitiveOutlineColor.value

Gaffer::Color4fPlug

!!!*EMPTY*!!!

primitiveOutlineWidth.value

Gaffer::FloatPlug

!!!*EMPTY*!!!

primitivePoint.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

primitivePointColor.value

Gaffer::Color4fPlug

!!!*FMPTY*!!!

primitivePointWidth.value

Gaffer::FloatPlug

```
!!!EMPTY!!!
```

primitiveBound.value

Gaffer::BoolPlug
!!!EMPTY!!!

primitiveBoundColor.value

Gaffer::Color4fPlug

!!!*EMPTY*!!!

pointsPrimitiveUseGLPoints.value

Gaffer::StringPlug
!!!EMPTY!!!

pointsPrimitiveGLPointWidth.value

Gaffer::FloatPlug

!!!*EMPTY*!!!

curvesPrimitiveUseGLLines.value

Gaffer::BoolPlug
!!!EMPTY!!!

curvesPrimitiveGLLineWidth.value

Gaffer::FloatPlug
!!!EMPTY!!!

curvesPrimitiveIgnoreBasis.value

Gaffer::BoolPlug
!!!EMPTY!!!

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

OpenGLRender

A base class for nodes which can render scenes.

Plugs:

despatcherParameters

```
Gaffer::CompoundPlug
!!!EMPTY!!!
```

in

GafferScene::ScenePlug

The scene to be rendered.

requirement

```
Gaffer::Plug
!!!EMPTY!!!
```

requirements

```
Gaffer::ArrayPlug
```

requirement0

Gaffer::Plug
!!!*EMPTY*!!!

OpenGLShader

The base type for all nodes which create shaders. Use the ShaderAssignment node to assign them to objects in the scene.

Plugs:

enabled

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

name

```
Gaffer::StringPlug
```

The name of the shader being represented. This should be considered read-only. Use the Shader.loadShader() method to load a shader.

out

```
Gaffer::Plug
!!!EMPTY!!!
```

parameters

```
Gaffer::CompoundPlug
```

Where the parameters for the shader are represented.

type

```
Gaffer::StringPlug
!!!EMPTY!!!
```

Parent

Parents one scene hierarchy into another.

Plugs:

child

GafferScene::ScenePlug

The child hierarchy to be parented.

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

parent

Gaffer::StringPlug

!!!*EMPTY*!!!

ParentConstraint

Constrains objects from one part of the scene hierarchy as if they were children of another part of the hierarchy.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

relativeTransform

Gaffer::TransformPlug

Transforms the constrained object relative to the target location.

translate

Gaffer::V3fPlug

```
rotate
          Gaffer::V3fPlug
          !!!EMPTY!!!
     scale
          Gaffer::V3fPlug
          !!!EMPTY!!!
     pivot
          Gaffer::V3fPlug
          !!!EMPTY!!!
target
     Gaffer::StringPlug
     !!!EMPTY!!!
targetMode
     Gaffer::IntPlug
     !!!EMPTY!!!
targetOffset
     Gaffer::V3fPlug
     !!!EMPTY!!!
PathFilter
!!!EMPTY!!!
Plugs:
match
     Gaffer::IntPlug
     !!!EMPTY!!!
paths
     Gaffer::StringVectorDataPlug
     !!!EMPTY!!!
Plane
A node which produces scenes containing a plane.
Plugs:
dimensions
     Gaffer::V2fPlug
     Controls size of the plane in X and Y.
     X
          Gaffer::FloatPlug
          !!!EMPTY!!!
```

```
у
          Gaffer::FloatPlug
          !!!EMPTY!!!
divisions
     Gaffer::V2iPlug
     Controls tesselation of the plane.
     X
          Gaffer::IntPlug
          !!!EMPTY!!!
          Gaffer::IntPlug
          !!!EMPTY!!!
enabled
     Gaffer::BoolPlug
     The on/off state of the node. When it is off, the node outputs an empty scene.
name
     Gaffer::StringPlug
     The name of the object in the output scene.
out
     GafferScene::ScenePlug
     The output scene.
transform
     Gaffer::TransformPlug
     The transform applied to the object.
     translate
          Gaffer::V3fPlug
          !!!EMPTY!!!
     rotate
          Gaffer::V3fPlug
          !!!EMPTY!!!
     scale
          Gaffer::V3fPlug
          !!!EMPTY!!!
     pivot
          Gaffer::V3fPlug
          !!!EMPTY!!!
```

PointConstraint

The base type for scene processors which use a Filter node to control which part of the scene is affected.

Plugs:

```
enabled
```

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

offset

```
Gaffer::V3fPlug
```

!!!*EMPTY*!!!

out

GafferScene::ScenePlug

The processed output scene.

target

```
Gaffer::StringPlug
```

!!!*EMPTY*!!!

targetMode

Gaffer::IntPlug

!!!*EMPTY*!!!

targetOffset

Gaffer::V3fPlug

!!!*EMPTY*!!!

xEnabled

Gaffer::BoolPlug

!!!*EMPTY*!!!

yEnabled

Gaffer::BoolPlug

!!!*EMPTY*!!!

zEnabled

Gaffer::BoolPlug

!!!*EMPTY*!!!

Prune

A node for removing whole branches from the scene hierarchy.

Plugs:

adjustBounds

Gaffer::BoolPlug

Computes new tightened bounding boxes taking into account the removed locations. This can be an expensive operation - turn on with care.

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The input scene.

The branches to prune. The specified locations and all locations below them will be removed from the scene.

in

```
GafferScene::ScenePlug
```

out

GafferScene::ScenePlug

The processed output scene.

SceneContextVariables

The base type for all nodes which take an input scene and process it in some way.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

variables

```
Gaffer::CompoundDataPlug
```

!!!*EMPTY*!!!

SceneReader

The base type for all nodes which are capable of generating a hierarchical scene.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs an empty scene.

fileName

```
Gaffer::StringPlug
```

```
!!!EMPTY!!!
```

out

GafferScene::ScenePlug
The output scene.

refreshCount

Gaffer::IntPlug
!!!EMPTY!!!

tags

Gaffer::StringPlug
!!!EMPTY!!!

SceneSwitch

The base type for all nodes which take an input scene and process it in some way.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug
The input scene.

index

Gaffer::IntPlug
!!!*EMPTY*!!!

out

GafferScene::ScenePlug
The processed output scene.

SceneTimeWarp

The base type for all nodes which take an input scene and process it in some way.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug
The input scene.

offset

Gaffer::FloatPlug
!!!EMPTY!!!

```
out
     GafferScene::ScenePlug
     The processed output scene.
speed
     Gaffer::FloatPlug
     !!!EMPTY!!!
SceneWriter
!!!EMPTY!!!
Plugs:
fileName
     Gaffer::StringPlug
     !!!EMPTY!!!
in
     GafferScene::ScenePlug
     !!!EMPTY!!!
Seeds
The base type for all nodes which take an input scene and process it in some way.
Plugs:
density
     Gaffer::FloatPlug
     !!!EMPTY!!!
enabled
     Gaffer::BoolPlug
     The on/off state of the node. When it is off, the node outputs the input scene unchanged.
in
     GafferScene::ScenePlug
     The input scene.
name
     Gaffer::StringPlug
     !!!EMPTY!!!
out
     GafferScene::ScenePlug
     The processed output scene.
parent
     Gaffer::StringPlug
```

```
pointType
```

```
Gaffer::StringPlug
!!!EMPTY!!!
```

ShaderAssignment

Assigns shaders to objects.

Plugs:

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

out

GafferScene::ScenePlug

The processed output scene.

shader

Gaffer::Plug

The shader to be assigned.

ShaderSwitch

!!!*EMPTY*!!!

Plugs:

enabled

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

in

Gaffer::Plug

!!!*EMPTY*!!!

index

Gaffer::IntPlug

!!!*EMPTY*!!!

out

Gaffer::Plug

Sphere

A node which produces scenes containing a sphere.

```
Plugs:
```

```
divisions
```

```
Gaffer::V2iPlug
```

Controls tesselation of the sphere when type is Mesh.

```
X
```

```
Gaffer::IntPlug
!!!EMPTY!!!
```

У

```
Gaffer::IntPlug
!!!EMPTY!!!
```

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs an empty scene.

name

```
Gaffer::StringPlug
```

The name of the object in the output scene.

out

```
GafferScene::ScenePlug
```

The output scene.

radius

```
Gaffer::FloatPlug
```

Radius of the sphere.

thetaMax

```
Gaffer::FloatPlug
```

Limits the extent of the sphere around the pole axis. Valid values are in the range [0,360].

transform

```
Gaffer::TransformPlug
```

The transform applied to the object.

translate

```
Gaffer::V3fPlug
```

rotate

```
Gaffer::V3fPlug
!!!EMPTY!!!
```

scale

```
Gaffer::V3fPlug
!!!EMPTY!!!
```

pivot

```
Gaffer::V3fPlug
!!!EMPTY!!!
```

type

```
Gaffer::IntPlug
```

The type of object to produce. May be a SpherePrimitive or a Mesh.

zMax

```
Gaffer::FloatPlug
```

Limits the extent of the sphere along the upper pole. Valid values are in the range [-1,1] and should always be greater than zMin.

zMin

```
Gaffer::FloatPlug
```

Limits the extent of the sphere along the lower pole. Valid values are in the range [-1,1] and should always be less than zMax.

StandardAttributes

The base type for nodes that apply attributes to the scene.

Plugs:

attributes

```
Gaffer::CompoundDataPlug
```

The attributes to be applied - arbitrary numbers of user defined attributes may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

visibility.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

doubleSided.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

transformBlur.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

transformBlurSegments.value

```
Gaffer::IntPlug
!!!EMPTY!!!
```

deformationBlur.value

```
Gaffer::BoolPlug
!!!EMPTY!!!
```

deformationBlurSegments.value

```
Gaffer::IntPlug
!!!EMPTY!!!
```

enabled

```
Gaffer::BoolPlug
```

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

```
Gaffer::IntPlug
```

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

```
GafferScene::ScenePlug
```

The input scene.

out

```
GafferScene::ScenePlug
```

The processed output scene.

StandardOptions

The base type for nodes that apply options to the scene.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

options

```
Gaffer::CompoundDataPlug
```

The options to be applied - arbitrary numbers of user defined options may be added as children of this plug via the user interface, or using the CompoundDataPlug API via python.

renderCamera.value

```
Gaffer::StringPlug
```

!!!*EMPTY*!!!

renderResolution.value

Gaffer::V2iPlug

!!!*EMPTY*!!!

cameraBlur.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

transformBlur.value

Gaffer::BoolPlug

!!!*FMPTY*!!!

deformationBlur.value

Gaffer::BoolPlug

!!!*EMPTY*!!!

shutter.value

Gaffer::V2fPlug
!!!EMPTY!!!

out

GafferScene::ScenePlug

The processed output scene.

SubTree

A node for extracting a specific branch from a scene.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

in

GafferScene::ScenePlug

The input scene.

includeRoot

Gaffer::BoolPlug
!!!EMPTY!!!

out

GafferScene::ScenePlug

The processed output scene.

гoot

Gaffer::StringPlug

The location to become the new root for the output scene. All locations below this will be kept, and all others will be discarded.

Text

A node which produces scenes with exactly one object in them.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs an empty scene.

font

Gaffer::StringPlug

!!!*EMPTY*!!!

name

Gaffer::StringPlug

The name of the object in the output scene.

out

GafferScene::ScenePlug
The output scene.

text

Gaffer::StringPlug
!!!EMPTY!!!

transform

Gaffer::TransformPlug

The transform applied to the object.

translate

Gaffer::V3fPlug
!!!*EMPTY*!!!

rotate

Gaffer::V3fPlug !!!*EMPTY*!!!

scale

Gaffer::V3fPlug !!!*EMPTY*!!!

pivot

Gaffer::V3fPlug
!!!*EMPTY*!!!

Transform

Modifies the transforms of all locations matched by the filter.

Plugs:

enabled

Gaffer::BoolPlug

The on/off state of the node. When it is off, the node outputs the input scene unchanged.

filter

Gaffer::IntPlug

The filter used to control which parts of the scene are processed. A Filter node should be connected here.

in

GafferScene::ScenePlug
The input scene.

out

GafferScene::ScenePlug

The processed output scene.

Gaffer::IntPlug The space in which the transform is applied. transform Gaffer::TransformPlug The transform to be applied. translate Gaffer::V3fPlug !!!*EMPTY*!!! rotate Gaffer::V3fPlug !!!*EMPTY*!!! scale Gaffer::V3fPlug !!!*EMPTY*!!! pivot Gaffer::V3fPlug !!!*EMPTY*!!! UnionFilter !!!*EMPTY*!!! Plugs: in Gaffer::ArrayPlug !!!*EMPTY*!!!

match

Gaffer::IntPlug

!!!*EMPTY*!!!

space

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