10.1.14 Editors - Compositor Editor - Header - Add Menu - Mask

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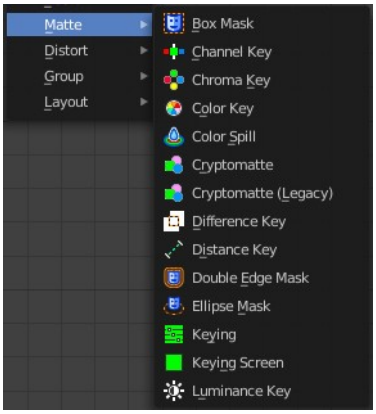


These nodes give you the essential tools for creating a Matte for images that do not already have their own Alpha Channel. One usage scenario is blue-screen or green-screen footage, where live action is shot in front of a blue or green backdrop for replacement by a matte painting or virtual background.

In general, hook up these nodes to a viewer, set your Image Editor to show the Viewer node, and play with the sliders in real-time using a sample image from the footage, to get the settings right. In some cases, small adjustments can eliminate artifacts or foreground image degradation. Taking out too much green can result in foreground actors looking flat or blueish/purplish.

You can and should chain these nodes together, improving your masking and color correction in successive refinements, using each node's strengths to operate on the previous node's output. Keying Node is the closest to a "does-it-all" node for green screens, but the best results stem from a combination of techniques.

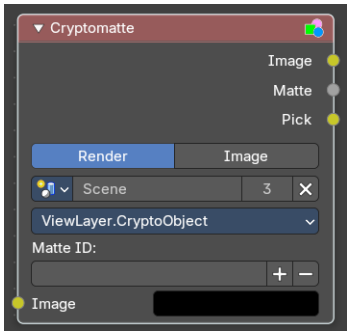
Note!

Garbage Matte is not a node, but a technique selecting what to exclude from an image. It is a Mask used to identify content to be removed from an image that cannot be removed by an automatic process like chroma keying. It is used either to select specific content to be removed, or it is the inverse of a rough selection of the subject; removing everything else.

Some nodes accept a garbage matte directly. For those that don't, you can still apply one by subtracting the garbage matte from the matte generated by the node.

Simple garbage mattes can be created with the Box Mask or the Ellipse Mask. More complicated matte shapes using a Double Edge Mask or using a Mask.

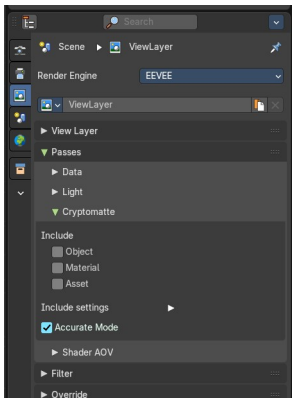
Cryptomatte



The Cryptomatte node uses the Cryptomatte standard to efficiently create mattes for compositing. Cycles outputs the required render passes, which can then be used in the Compositor or another Compositor with Cryptomatte support to create masks for specified objects.

Unlike the Material and Object Index passes, the objects to isolate are selected in compositing, and mattes will be anti-aliased and take into account effects like motion blur and transparency.

Usage



Enable Cryptomatte Object render pass in the Passes panel, and render.

In the compositing nodes, create a Cryptomatte node and link the Render Layer matching Image and Cryptomatte passes to it.

Attach a Viewer node to the Pick output of the Cryptomatte node.

Use the Cryptomatte Add/Remove button to sample objects in the Pick Viewer node.

Use the Matte output of the Cryptomatte node to get the alpha mask.

Inputs

Image

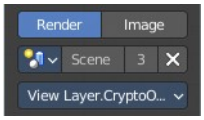
Standard image input.

Properties

Render / Image

Use the render result or an external image as the base image for cryptomatte.

Render

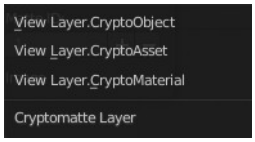


Use Cryptomatte data that are stored as part of the render.

Scene Property

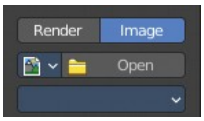
Pick the scene that you want to use.

Cryptomatte Layer



Pick the cryptomatte layer that you want to use.

Image

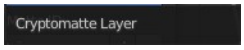


Use Cryptomatte data that are stored inside a multilayered OpenEXR image.

Image Property

Pick the image that you want to use.

Cryptomatte Layer



Pick the cryptomatte layer that you want to use.

Matte ID

List of object and material crypto IDs to include in matte. This can be used for example to quickly clear all mattes by deleting the text or used to copy-and-paste crypto IDs from other software.

Outputs

Image

A colored output of the input image with the matte applied to only include selected layers.

Matte

A black-and-white alpha mask of the all the selected crypto layers.

Pick

A colored representation of the Cryptomatte pass which can be used with a Viewer node to select which crypto passes are used to create the matte image.

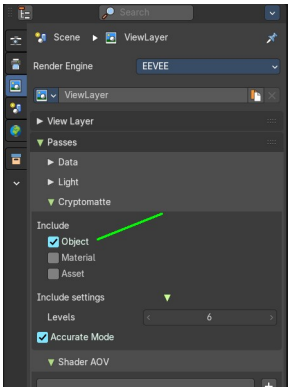
Cryptomatte (Legacy)

This is the legacy node version.

The Cryptomatte node uses the Cryptomatte standard to efficiently create mattes for compositing. Cycles outputs the required render passes, which can then be used in the Compositor or another Compositor with Cryptomatte support to create masks for specified objects.

Unlike the Material and Object Index passes, the objects to isolate are selected in compositing, and mattes will be anti-aliased and take into account effects like motion blur and transparency.

Usage



Enable Cryptomatte Object render pass in the Passes panel, and render.

In the compositing nodes, create a Cryptomatte node and link the Render Layer matching Image and Cryptomatte passes to it.

Attach a Viewer node to the Pick output of the Cryptomatte node.

Use the Cryptomatte Add/Remove button to sample objects in the Pick Viewer node.

Use the Matte output of the Cryptomatte node to get the alpha mask.

Adding/Removing Layers

By default there are only four crypto layers available as inputs to the Cryptomatte node. You can add or remove layer inputs through Sidebar > Item > Properties > Add/Remove Crypto Layer. These operators will add/remove layers from the bottom of the pass inputs.

Inputs

Image

Standard image input.

Crypto Passes

Each crypto layer will be given its own render pass; each of these render passes must be connected to one of these crypto layer inputs. By default there are only four layers, see Adding/Removing Layers to add more.

Properties

Add/Remove

Adds/Removes an object or material from matte, by picking a color from the Pick output.

Matte ID

List of object and material crypto IDs to include in matte. This can be used for example to quickly clear all mattes by deleting the text or used to copy-and-paste crypto IDs from other software.

Outputs

Image

A colored output of the input image with the matte applied to only include selected layers.

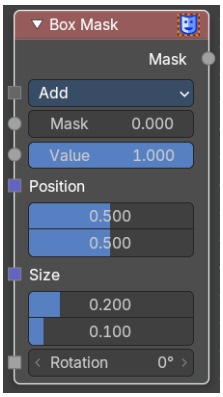
Matte

A black-and-white alpha mask of the all the selected crypto layers.

Pick

A colored representation of the Cryptomatte pass which can be used with a Viewer node to select which crypto passes are used to create the matte image.

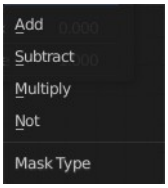
Box Mask



The Box Mask node creates an image suitable for use as a simple matte.

Inputs

Operation



Operation to use against the input mask.

Add

This yields the union of the input mask and the generated mask: Areas covered by the generated mask are set to the specified Value. Other parts of the input masked are passed through unchanged, or set to

black if there is no input mask.

Subtract
Values of the input mask have the specified Value subtracted from them.

Multiply

This yields the intersection of this generated mask and the input mask: Values of the input mask are multiplied by the specified Value for the area covered by the generated mask. All other areas become black.

Not
Any area covered by both the input mask and the generated mask becomes black. Areas covered by the generated mask that are black on the input mask become the specified Value. Areas uncovered by the generated mask remain unchanged.

Mask
An optional mask to use as the base for mask operations.

Value
Intensity of the generated mask.

Position
Position of the center of the box as a fraction of the total width or height in X and Y direction. (0.5, 0.5 creates a centered box; 0.0, 0.0 creates a box in the lower left.)

Size
The size of the masking box as a fraction of the total width or height in X and Y direction. (0.5, 0.5 creates a centered box; 0.0, 0.0 creates a box in the lower left.)

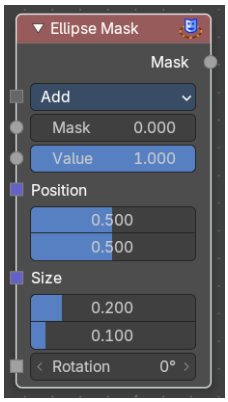
Rotation
Rotation of the box around its center point.

Outputs

Mask
A generated rectangular mask merged with the input mask. The created mask is the size of the current scene render dimensions.

Tip. For soft edges, pass the output mask through a slight Blur node.

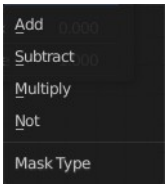
Ellipse Mask



The Ellipse Mask node creates an image suitable for use as a simple matte or vignette mask.

Inputs

Operation



Operation to use against the input mask.

Add

This yields the union of the input mask and the generated mask: Areas covered by the generated mask are set to the specified Value. Other parts of the input masked are passed through unchanged, or set to black if there is no input mask.

Subtract

Values of the input mask have the specified Value subtracted from them.

Multiply

This yields the intersection of this generated mask and the input mask: Values of the input mask are multiplied by the specified Value for the area covered by the generated mask. All other areas become black.

Not

Any area covered by both the input mask and the generated mask becomes black. Areas covered by the generated mask that are black on the input mask become the specified Value. Areas uncovered by the generated mask remain unchanged.

Mask

An optional mask to use as the base for mask operations.

Value

Intensity of the generated mask.

Position

Position of the center of the ellipse as a fraction of the total width or height in X and Y direction. (0.5, 0.5 creates a centered box; 0.0, 0.0 creates a box in the lower left.)

Size

The size of the masking ellipse as a fraction of the total width or height in X and Y direction. (0.5, 0.5 creates a

centered box; 0.0, 0.0 creates a box in the lower left.)

Rotation

Rotation of the box around its center point.

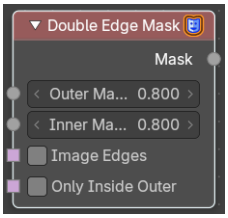
Outputs

Mask

A generated rectangular mask merged with the input mask. The created mask is the size of the current scene render dimensions.

Tip. For soft edges, pass the output mask through a slight Blur node.

Double Edge Mask



The Double Edge Mask node creates a gradient between two masks.

Inputs

Outer Mask

A mask representing the outside shape, which will fade from black at its edges to white at the Inner Mask.

Inner Mask

A mask representing the inside shape, which will be fully white.

Image Edges

The edges of the image that intersect sthe outer mask will be considered edges of the outer mask. Otherwise, the outer mask will be considered open-ended

Only Inside Outer

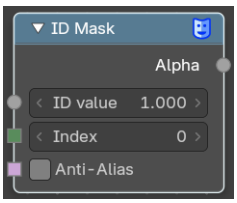
Only edgfes of the inner mask that lie inside the outer mask will be considered. Otherwise, all edges of the inner mask will be considered.

Outputs

Mask

Standard mask output.

ID Mask



The ID Mask Node can be used to access an alpha mask per object or per material.

Inputs

ID value

Input for the Object Index or Material Index render pass. Which is an output of the Render Layers node or the Image node with a multi-layer format.

Index

Selection of the previously specified index.

Anti-Aliased

This post-process function refines the mask. See anti-aliasing.

Outputs

Alpha

The mask is white where the object is and black where it is not. If the object is transparent, the alpha mask represent that with gray values.

Setup

An index can be specify for any object or Cycles material in the scene. The Object Index can be set in the Relations panel in the Object tab in the Properties Editor. And for Cycles in the Settings Panel in the Material tab in the Properties editor. To be accessible after rendering, Object Index or Material Index render pass has to be enabled in the Passes panel in the View Layer properties tab in the Properties editor.