11.1 Compositing - Introduction

Compositing

Introduction

Compositing Nodes allow you to assemble and enhance an image (or movie). Using composition nodes, you can glue two pieces of footage together and colorize the whole sequence all at once. You can enhance the colors of a single image or an entire movie clip in a static manner or in a dynamic way that changes over time (as the clip progresses). In this way, you use composition nodes to both assemble video clips together, and enhance them.

> **Note**
>
> Term: Image
>
> The term *Image* may refer to a single picture, a picture in a numbered sequence of images, or a frame of a movie clip. A node layout processes one image at a time, no matter what kind of input you provide.

Default Composition Noodle

To process your image, you use nodes to import the image into Blender, change it, optionally merge it with other images, and finally save it.

The example to the right shows the simplest node setup; an input node links the camera view to an output node so it can be saved.

Getting Started

Access the *Node Editor* and enable *Composite Nodes* by clicking on the *Image* icon.

Node Editor Header with Composite Nodes enabled

To activate nodes for compositing, click the *Use Nodes* checkbox. Blender creates a default node setup, consisting out of two nodes linked together.

> **Note**
>
> After clicking *Use Nodes* the Compositor is enabled however, it can also be disabled in the *Post Processing Panel*.

You now have your first node setup, a RenderLayer input node linked to a Composite output node. From here, you can add and connect many *types of compositing nodes*, in a sort of map layout, to your heart's content (or physical memory constraints, whichever comes first).

> **Note**
>
> Nodes and node concepts are explained in more detail in the *Node Editor*

Options

Free Unused Button
> This button frees up memory space when you have a very complex node map.

Backdrop

Use the active viewer node output as a backdrop. When enabled, additional settings appear in the Header and the Properties Panel:

Backdrop Channels.

Backdrop Channels
> Set the image to be displayed with *Color, Color and Alpha,* or just *Alpha*.
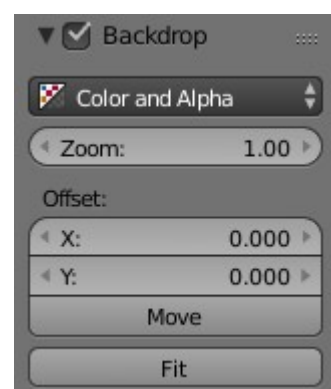
Zoom
> Sets how big the backdrop image is.

Offset
> Change the screen space position of the backdrop, or click the *Move* button, or shortcut Alt-MMB to manually move it.

Auto Render
> Re-render and composite changed layer when edits to the 3d scene are made.
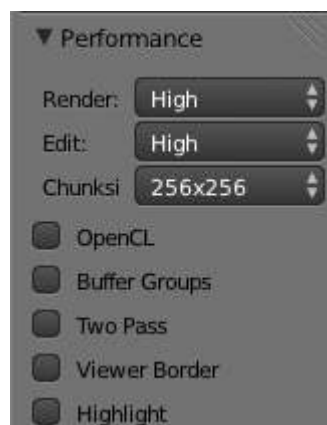
Backdrop Options

Performance Settings

Render
> Set quality when rendering in Node Editor.

Edit
> Set quality when editing in Node Editor

Chunk Size
> Max size of a title (smaller values give better distribution of multiple threads, but more overhead).

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Performance Settings

OpenCL
>   Enable GPU calculations when working in Node Editor.

Buffer Groups
>   Enable buffering of group nodes.

Two Pass
>   Use two pass execution during editing: first calculate fast nodes, second pass calculate all nodes.

Viewer Border
>   Use boundaries for viewer nodes and composite backdrop.

Highlight
>   Highlight nodes that are being calculated.

Examples

You can do just about anything with images using nodes.

Raw footage from a foreground actor in front of a blue screen, or a rendered object doing something, can be layered on top of a background. Composite both together, and you have composited footage.

You can change the mood of an image:

- To make an image 'feel' colder, a blue tinge is added.
- To convey a flashback or memory, the image may be softened.
- To convey hatred and frustration, add a red tinge or enhance the red. The film 'Sin City' is the most extreme example of this I have ever seen.
- A startling event may be sharpened and contrast-enhanced.
- A happy feeling - you guessed it - add yellow (equal parts red and green, no blue) for bright and sunny.
- Dust and airborne dirt is often added as a cloud texture over the image to give a little more realism.