Node Wrangler

Node Wrangler provides various tools that help you to work with nodes quickly and efficiently.

While many of this add-on's functions work in all supported node editors (Compositor, Shader, Geometry Nodes, and Texture Nodes) some functions only work in specific node editors, and some functions work differently per editor. Functions that only work in specific editors are marked with labels (Compositor , Shader , Geometry Nodes , Texture Nodes). Functions without labels should work for all node editors.

Enabling Add-on

1. Open Blender and go to Add-ons section of the Preferences.
2. Search "Node Wrangler" and check the *Enable Extension* checkbox.

Usage

Use the panel in Sidebar of the node editor or press `Shift – W` to bring up the quick access menu. You can also look up the shortcut list in the add-on preferences panel.
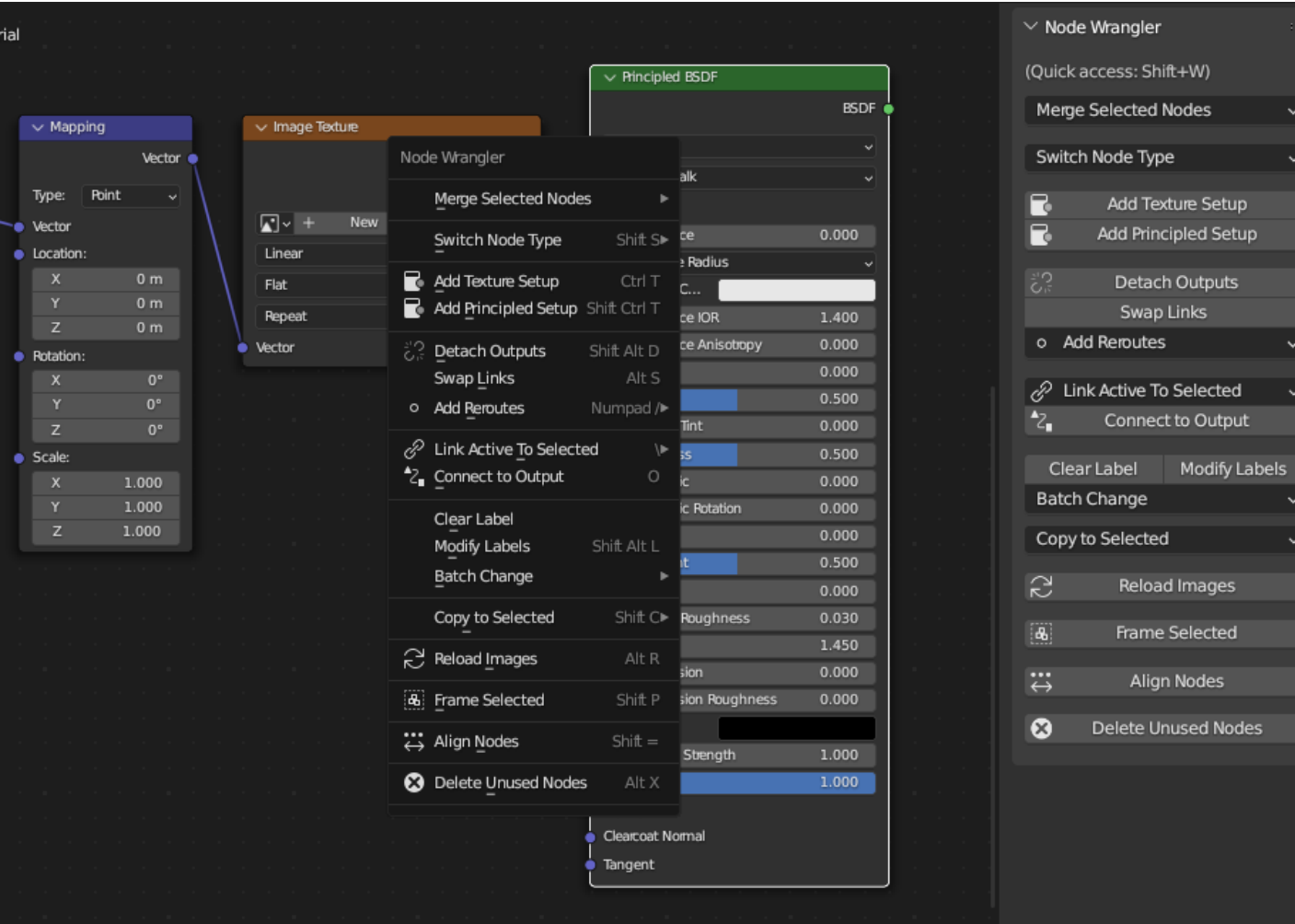
You can access most functions from the sidebar panel or quick access menu.

Description

Lazy Connect

Reference	
Shortcut:	

```
      Alt - RMB -drag, Shift - Alt - RMB -drag
```

Connect two nodes without even clicking the sockets. Just drag the cursor from one node to another while holding `Alt - RMB` . It will select the node nearest the start and end points of the drag for connection, so you don't even have to click on the nodes.
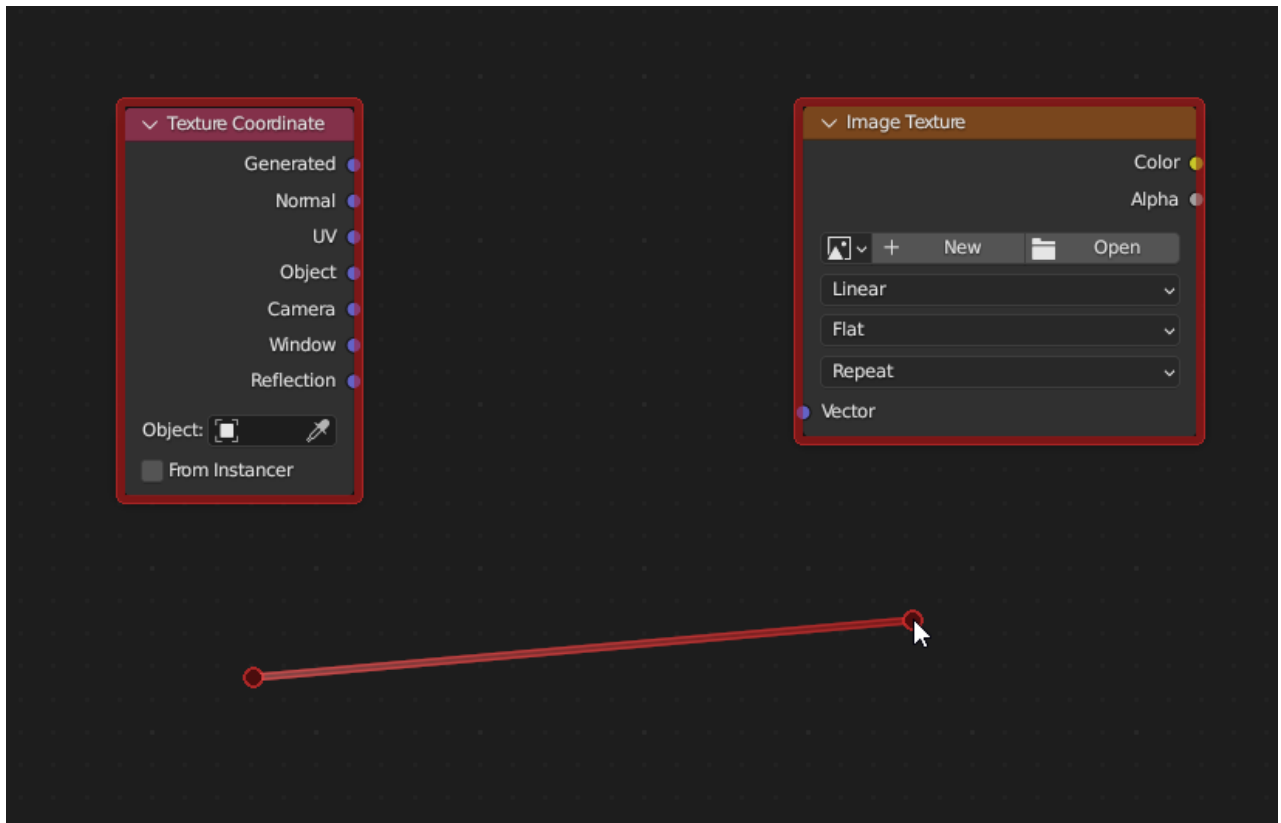
Selection can be lazy.

It tries to connect the best-matched sockets possible, based on their names, types, and whether they are open or not.

For a more precise connection, you can alternatively use `Shift - Alt - RMB` . It brings up menus of available inputs and outputs before connection so you can select the exact sockets to connect. It's especially useful when working with a large node tree since you can make connections without frequently zooming in and out.

Lazy Mix

Reference

Shortcut:
```
      Shift - Ctrl - RMB -drag
```

Connect the outputs of two nodes into an appropriate "mix" type of node. This is the "lazy" way of selecting nodes and executing the *Mix* function from Merge with Automatic Type Detection.

Merge

Reference

Menu:
      Node Wrangler ‣ Merge Selected Nodes

Connect outputs of the selected nodes into a "mix" type of node (Mix, Math, Z-Combine, Alpha Over, Mix Shader, Add Shader, Join Geometry).

Note

Merge currently does not support outputs of Integer, String, or Boolean types from Geometry Nodes.

There are automatic and manual ways of merging. The automatic ways let the add-on determine which "mix" node to use based on the types of outputs t merge. The manual ways let you decide and force connections even if the types of outputs and the "mix" node are not compatible.

> Note
>
> Generally, the modifier part of the shortcut signifies the type of "mix" node you want to use (`Ctrl` for automatic detection, `Ctrl - Alt` for the Mix node, and `Shift - Ctrl` for the Math node), the non-modifier part signifies the mode of "mix" node you want to set (`NumpadPlus` for add, `NumpadMinus` for subtract, `NumpadSlash` for divide, and `NumpadAsterisk` for multiply).

Merge with Automatic Type Detection

The automatic merge functions determine the type of "mix" node to use based on the types of outputs to merge. If it has a Color output, it will use the Mi node. It will use the Math node if both outputs are of Value type. Add Shader, Mix Shader, and Join Geometry nodes will also be used for specific case

Modes

Add `Ctrl - =` , `Ctrl - NumpadPlus`

> Merge into Mix or Math nodes, then set blend mode or math operation as Add. If the outputs are Shaders, it will use Add Shader node instead.

Multiply `Ctrl - 8` , `Ctrl - NumpadAsterisk`

> Merge into Mix or Math nodes, then set blend mode or math operation as Multiply.

Subtract `Ctrl - Minus` , `Ctrl - NumpadMinus`

> Merge into Mix or Math nodes, then set blend mode or math operation as Subtract.

Divide `Ctrl - Slash` , `Ctrl - NumpadSlash`

> Merge into Mix or Math nodes, then set blend mode or math operation as Divide.

Mix `Ctrl - 0` , `Ctrl - Numpad0`

> Merge into Mix node, then set blend mode as Mix. If the outputs are Shaders, it will use Mix Shader node instead. If the outputs are Geometry, it will use Join Geometry node.

Merge Using Mix Node

> **Reference**
>
> **Menu:**
> > Node Wrangler ‣ Merge Selected Nodes ‣ Use Mix Nodes

Use the Mix nodes for merging, regardless of the selected nodes. You can choose the mode of the node via the menu. You can quickly set some operations by using corresponding shortcuts.

- Add: `Ctrl - Alt - =` , `Ctrl - Alt - =`
- Subtract: `Ctrl - Alt - Minus` , `Ctrl - Alt - NumpadMinus`
- Multiply: `Ctrl - Alt - 8` , `Ctrl - Alt - NumpadAsterisk`
- Divide: `Ctrl - Alt - Slash` , `Ctrl - Alt - NumpadSlash`

Merge Using Math Node

> **Reference**
>
> **Menu:**
> > Node Wrangler ‣ Merge Selected Nodes ‣ Use Math Nodes

Use the Math nodes for merging, regardless of the selected nodes. You can choose the mode of the node via the menu. You can quickly set some operations by using corresponding shortcuts.

- Add: `Shift - Ctrl - =` , `Shift - Ctrl - =`
- Subtract: `Shift - Ctrl - Minus` , `Shift - Ctrl - NumpadMinus`

- Multiply: `Shift ‒ Ctrl ‒ 8` , `Shift ‒ Ctrl ‒ NumpadAsterisk`
- Divide: `Shift ‒ Ctrl ‒ Slash` , `Shift ‒ Ctrl ‒ NumpadSlash`
- Greater than: `Ctrl ‒ Comma`
- Less than: `Ctrl ‒ Period`

Merge Using Z-Combine Node

Compositor

Reference

Menu:
    Node Wrangler ‣ Merge Selected Nodes ‣ Use Z-Combine Nodes
Shortcut:
    `Ctrl ‒ NumpadPeriod`

Use the Z-Combine nodes for merging. If possible, Image and Z-Depth outputs will be linked. If the current node editor is not Compositor, this will execute the *Mix* function from the automatic merge.

Merge Using Alpha Over Node

Compositor

Reference

Menu:
    Node Wrangler ‣ Merge Selected Nodes ‣ Use Alpha Over Nodes
Shortcut:
    `Ctrl ‒ Alt ‒ 0`

Use the Alpha Over nodes for merging. If the current node editor is not Compositor, this will execute the *Mix* function from the automatic merge.

Batch Change Blend Mode / Math Operation

Reference
Menu: Node Wrangler ‣ Batch Change

Change the blend mode or math operation of the selected Mix and Math nodes at once. You can use `Alt ‒ Up` or `Alt ‒ Down` to cycle throug previous or next blend modes or math operations. You can also quickly set some operations by using corresponding shortcuts.

- Add: `Alt ‒ =` , `Alt ‒ =`
- Subtract: `Alt ‒ Minus` , `Alt ‒ NumpadMinus`
- Multiply: `Alt ‒ 8` , `Alt ‒ NumpadAsterisk`
- Divide: `Alt ‒ Slash` , `Alt ‒ NumpadSlash`
- Greater than: `Alt ‒ Comma`
- Less than: `Alt ‒ Period`

Change Mix Factor

Reference

Shortcut:
    `Alt ‒ Left` , `Shift ‒ Alt ‒ Left` , `Alt ‒ Right` , `Shift ‒ Alt ‒ Right` , `Shift ‒ Ctrl ‒ Alt ‒ Left` ,
    `Shift ‒ Ctrl ‒ Alt ‒ 0` , `Shift ‒ Ctrl ‒ Alt ‒ Right` , `Shift ‒ Ctrl ‒ Alt ‒ 1`

Change the Factor value of the selected Mix and Mix Shader nodes with shortcuts.

- Increase Factor by 0.1: `Alt - Right`

- Decrease Factor by 0.1: `Alt - Left`

- Increase Factor by 0.01: `Shift - Alt - Right`

- Decrease Factor by 0.01: `Shift - Alt - Left`

- Set Factor to 0.0: `Shift - Ctrl - Alt - Left`, `Shift - Ctrl - Alt - 0`

- Set Factor to 1.0: `Shift - Ctrl - Alt - Right`, `Shift - Ctrl - Alt - 1`

Delete Unused Nodes

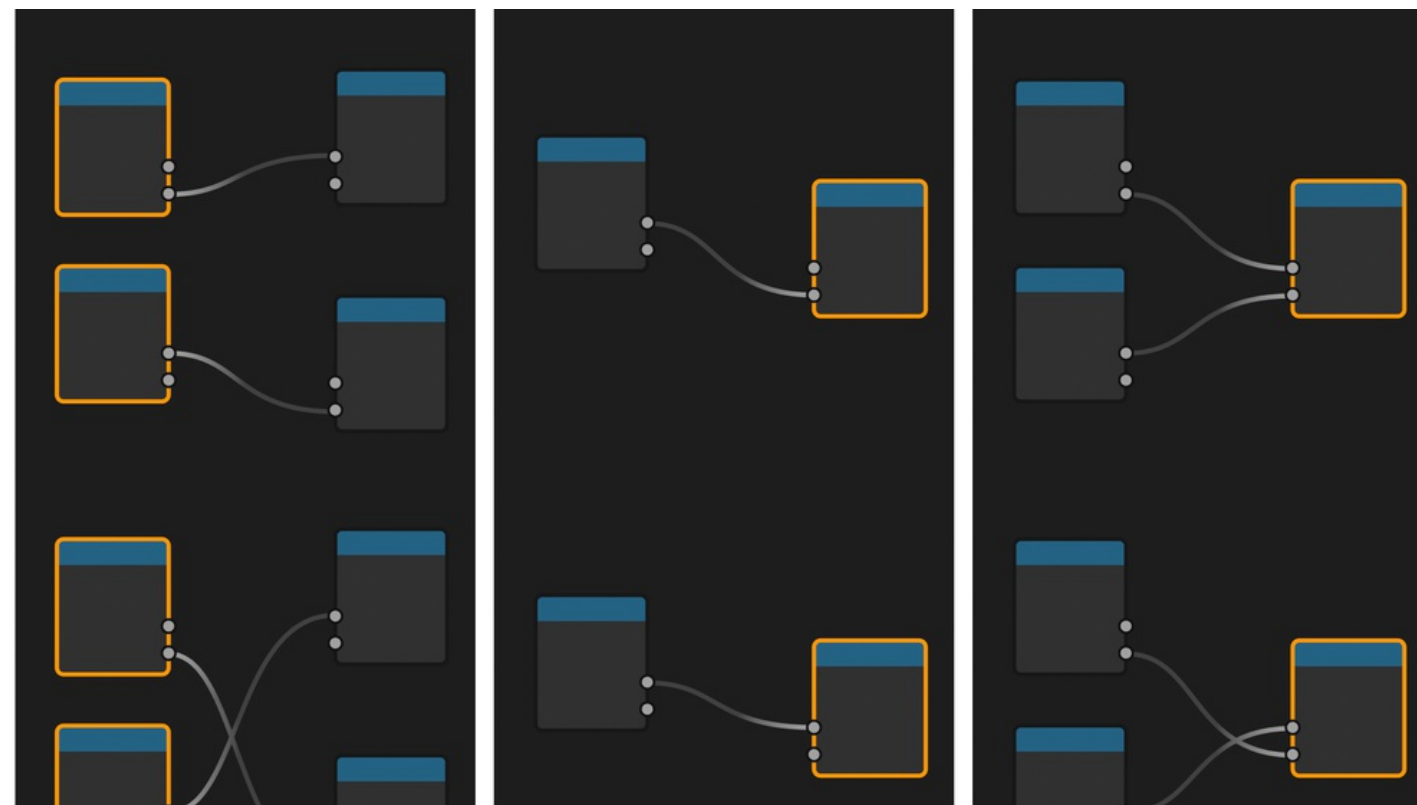| Reference |
| --- |
| **Menu:** |
| Node Wrangler ‣ Delete Unused Nodes |
| **Shortcut:** |
| `Alt - X` |

Clean up your node tree. Delete all nodes that don't contribute to the final result.

Swap Links

Reference
Menu:
Node Wrangler ‣ Swap Links
Shortcut:
`Alt - S`

When two nodes are selected, this swaps each other's output link. Note that some output connections can be lost if the two nodes have a different number of connected outputs.

With one node selected, if the node has one linked input, it cycles the link through the available input sockets. If the node has two linked inputs, it swaps those two links. If there are more than two inputs linked, it swaps the two inputs with matching types (the Mix node's two Color inputs, for example).

Swap works differently depending on the selected nodes and their links.

Reset Backdrop

Compositor

Reference

Menu:
    Node Wrangler ‣ Reset Backdrop
Shortcut:
    Z

Reset the position and scale of the backdrop.

Add Attribute Node

Shader

Reference
Menu: Header ‣ Add ‣ Input ‣ Attributes

Add an Attribute node with the selected attribute.

Preview Node Output

Shader   Geometry Nodes

Reference
Shortcut: `Shift – Ctrl – LMB` for Shader , `Shift – Alt – LMB` for Geometry Nodes

Connect an output of the selected node to the final output of the node tree (the Material Output or World Output for Shader, the final Group Output for Geometry Nodes) to preview its output in the viewport. You can cycle through the available outputs by clicking it again while holding the modifier keys.

See also
While in Shader, any output can be connected to the final output, in Geometry Nodes, only Geometry outputs can be connected to the final output. To preview other types of outputs in Geometry Nodes, use its own Viewer Node.

See also
Also check out *Connect to Output*. It is a similar function but has different behaviors. It also works in all node editors.

Join Nodes

Reference

Menu:
    Node Wrangler ‣ Join Nodes
Shortcut:
    `Shift – P`

See [Join in New Frame](#).

Reload Images

Compositor   Shader   Texture Nodes

Reference
Menu:
Node Wrangler ‣ Reload Images
Shortcut:
Alt – R

Reload all of the images used in the node tree. This lets you reload the images without using the Image Editor.

Copy Settings

Reference
Menu:
Node Wrangler ‣ Copy to Selected ‣ Settings from Active
Shortcut:
Shift – C

Copy the settings of the active node to all selected nodes of the same type.

Reset Nodes

Reference
Shortcut:
Backspace

Revert the settings of the selected nodes to default while maintaining connections.

Copy Label

Reference
Menu:
Node Wrangler ‣ Copy to Selected ‣ Copy Label
Shortcut:
Shift – V , Shift – C

Copy custom labels to all of the selected nodes. You can copy them from the active node (Shift – V), from the nodes that are linked to the selecte
ones, or from the names of the sockets that the selected nodes are linked to. Shift – C will bring up a submenu with all available options.

Clear Label

Reference
Menu:
Node Wrangler ‣ Clear Label
Shortcut:
Alt – L

Clear the custom labels of selected nodes and revert them back to their default node names.

Modify Labels

Batch rename the custom labels of selected nodes. You can add text to the beginning and the end and replace parts of the text.

Add Texture Setup

Shader

Add a setup of a texture node, Texture Coordinate, and Mapping nodes to any shader node. If you select a texture node, it will only add the Texture Coordinate and Mapping nodes. For a background shader it will add an Environment Texture node.
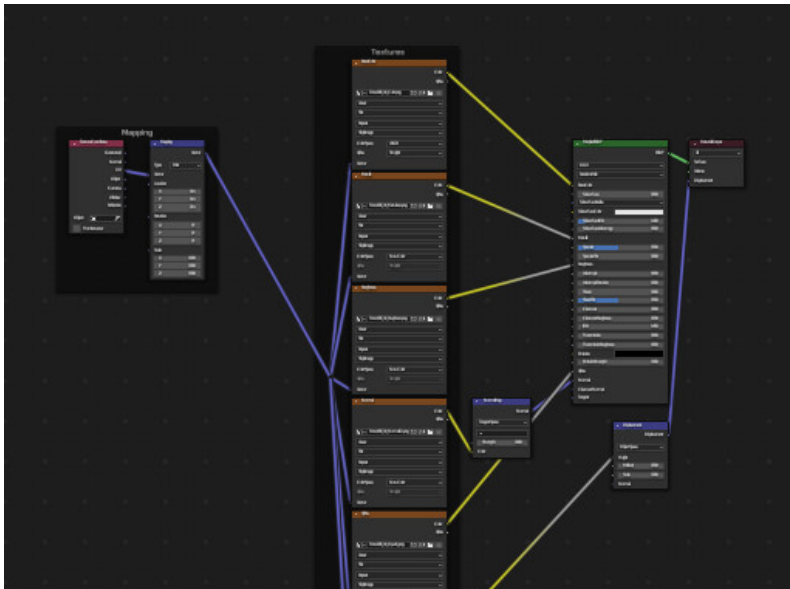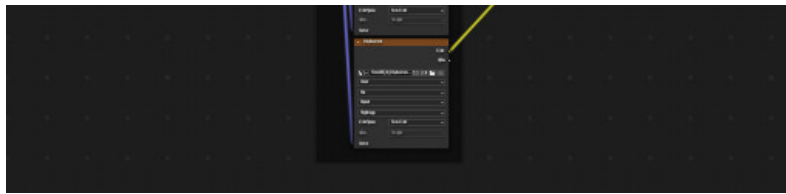
Add Principled Texture Setup

Shader

Add a principled texture setup from the selected texture files. Select a Principled BSDF node, select *Add Principled Setup* from the quick access menu (or press `Shift – Ctrl – T`), and select texture files. It automates the process of adding Image Texture nodes, loading images, selecting the appropriate Color Space, and connecting their outputs to the Principled BSDF node.

It detects the type of textures by looking at their file names. You can edit the tags used for this matching process in the add-on preferences.

Setting up these textures can take dozens of clicks, even with Node Wrangler's other tools. With Principled Texture Setup, you can reduce that to a few clicks.

Add Reroutes to Outputs

Reference
Menu: 　　Node Wrangler ‣ Add Reroutes **Shortcut:** 　　`Slash`

Add reroute nodes to each output of the selected nodes.

Link Active to Selected

Reference
Menu: 　　Node Wrangler ‣ Link Active to Selected **Shortcut:** 　　`Backslash`

Link the active node to the selected nodes based on various criteria.

To All Selected

Link the active node to all selected nodes. (`K`) You can force it to replace existing links. (`Shift - K`)

Use Node Name/Label

Link only to the selected nodes that have the same label as the active node. (`'`) You can force it to replace existing links. (`Shift - '`)

Use Outputs Names

Link only when the name of the outputs matches the name or label of the selected nodes. (`;`) You can force it to replace existing links. (`Shift - ;`) This is handy for replacing sources at the same time. (For example, connecting outputs from Render Layer to image (multi-layer EXR) in Compositor.)

Align Nodes

Reference
Menu: 　　Node Wrangler ‣ Align Nodes **Shortcut:** 　　`Shift - =`

Align the selected nodes horizontally or vertically. The effect is similar to scaling nodes on an axis (`S X 0` or `S Y 0`), but it places the nod at an even distance.

Select within Frame (Parent/Children)

- `]` – Select all direct child nodes of the selected frame.

- [– Select the direct parent frame node of the selected nodes.

Detach Outputs

Reference
Menu:
Node Wrangler ‣ Detach Outputs
Shortcut:
`Shift _ Alt _ D`

Detach the selected node's outputs while leaving linked inputs intact.

Connect to Output

Reference
Menu:
Node Wrangler ‣ Connect to Output
Shortcut:
`O`

Connect the output of the selected node to the final output of the node tree (Composite in Compositor, Material Output or World Output in Shader, the final Group Output in Geometry Nodes, Output in Texture Nodes), or, if the node is inside a group, to the Group Output.

Add Image Sequence

Compositor   Shader

Reference
Menu:
Add ‣ Input for Compositor , or Add ‣ Texture for Shader

Add an Image Sequence by only selecting one image from a sequence of image files. It will automatically detect the length of the sequence and set the no appropriately.

Add Multiple Images

Compositor   Shader

Reference
Menu:
Add ‣ Input for Compositor , or Add ‣ Texture for Shader

Select multiple images and add a node for each image. (Useful for importing multiple render passes or renders for image stacking.)

See also
Please see the old Wiki for the archived original docs.

Reference
Category:
Node
Description:
Various tools to enhance and speed up node-based workflow.
Location:
Node editor ‣ Sidebar or see the shortcuts of individual tools.

Node editor – shortcut of set the shortcuts of individual tools.

File:

node_wrangler.py

Author:

Bartek Skorupa, Greg Zaal, Sebastian Koenig, Christian Brinkmann, Florian Meyer

License:

GPL

Note:

This add-on is bundled with Blender.