
PowerProps

Release 1.0.0

ImperfectLink

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POWERPROPS

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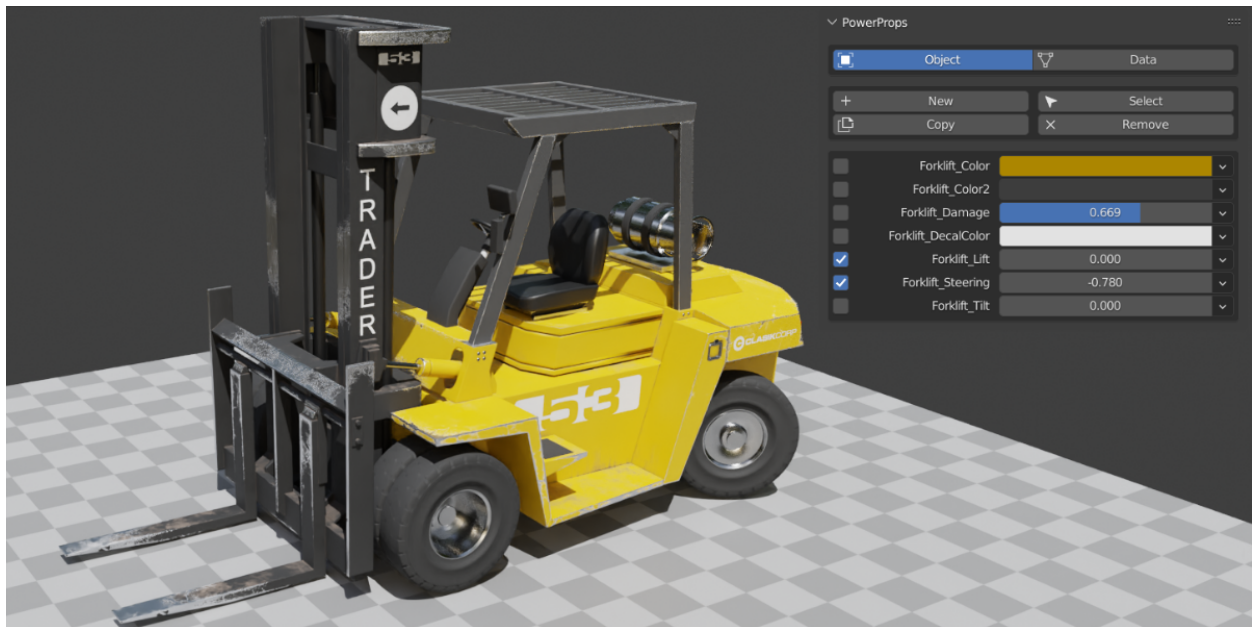
PowerProps is a Blender addon that helps you create smarter more meaningful objects by managing and applying custom properties and functionality. Store all of your important properties on the object itself. Batch Add, Remove and Copy custom properties, values and drivers to other objects. You can even choose to only copy values to objects that have that property while ignoring others. Quickly select objects with matching properties and values. Create preloaded material nodes to control material properties on a per object basis. Right click to create a connection to drive attributes with custom properties.

REQUIREMENTS

Blender 3.2 or newer

LINKS

[Gumroad](#) | [BlenderMarket](#) | [Discord](#)



2.1 Overview

PowerProps is a Blender addon that helps you create smarter more meaningful objects by managing and applying custom properties and functionality.

2.1.1 Features

Store all of your all of your important properties on the object itself including (but not limited to) material controls, modifier settings and geometry nodes inputs.

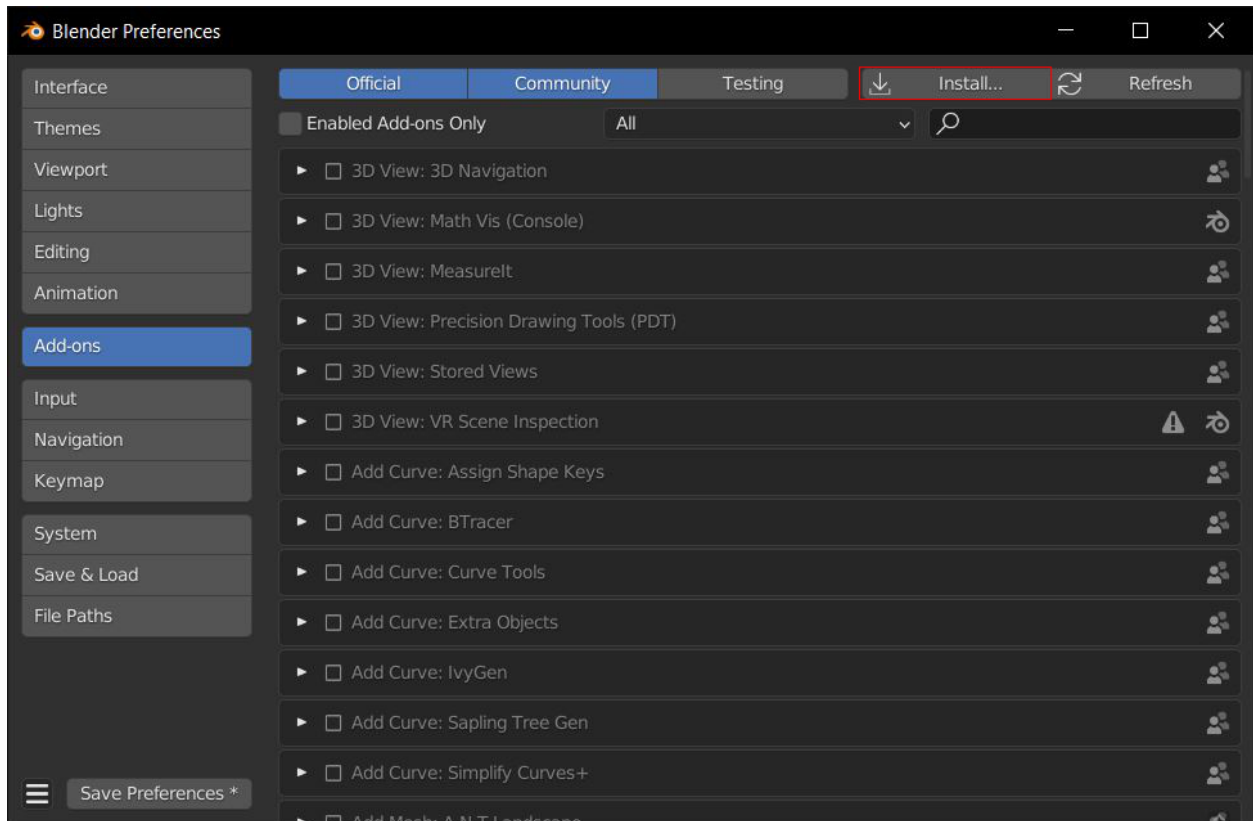
You can even choose to only copy values to objects that have that property while ignoring others.

Quickly select objects with matching properties and values.

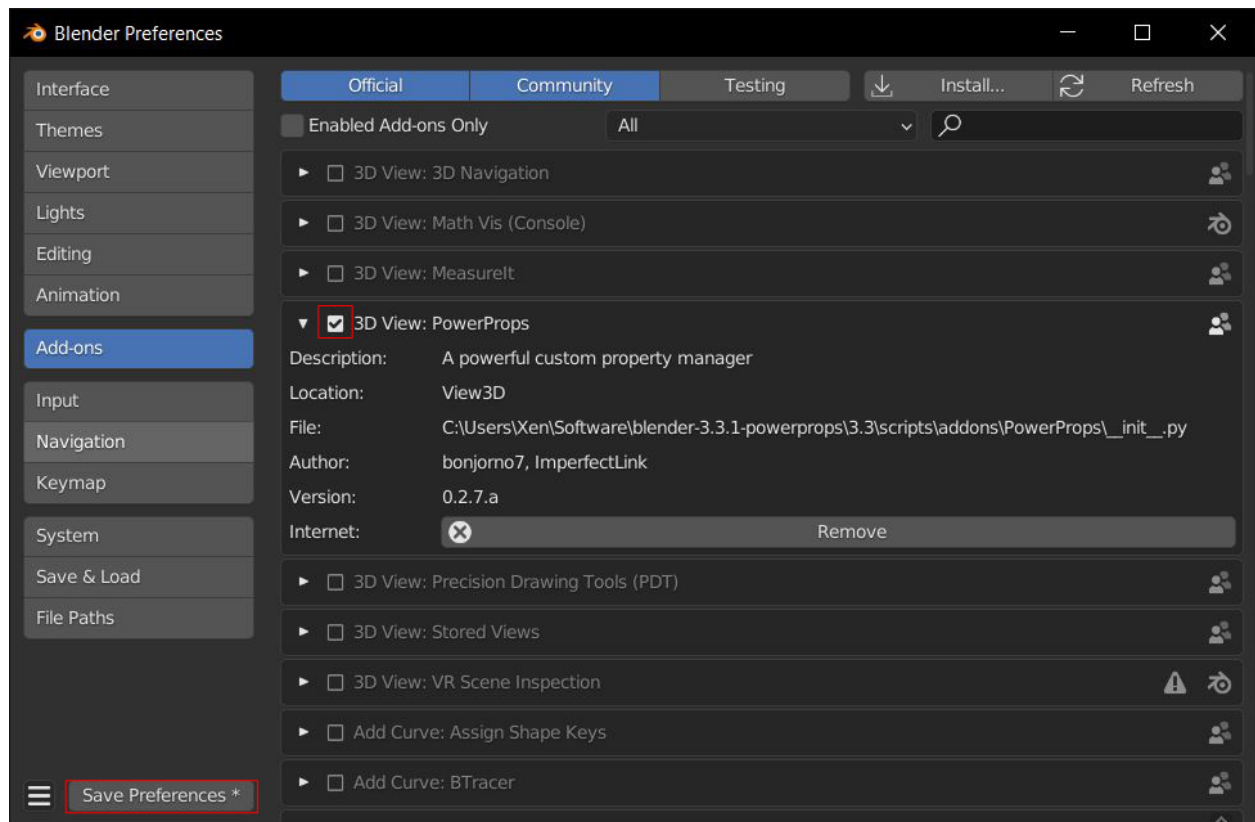
Create preloaded material nodes to control material properties on a per object basis.

Right click to create a connection to drive attributes with custom properties.

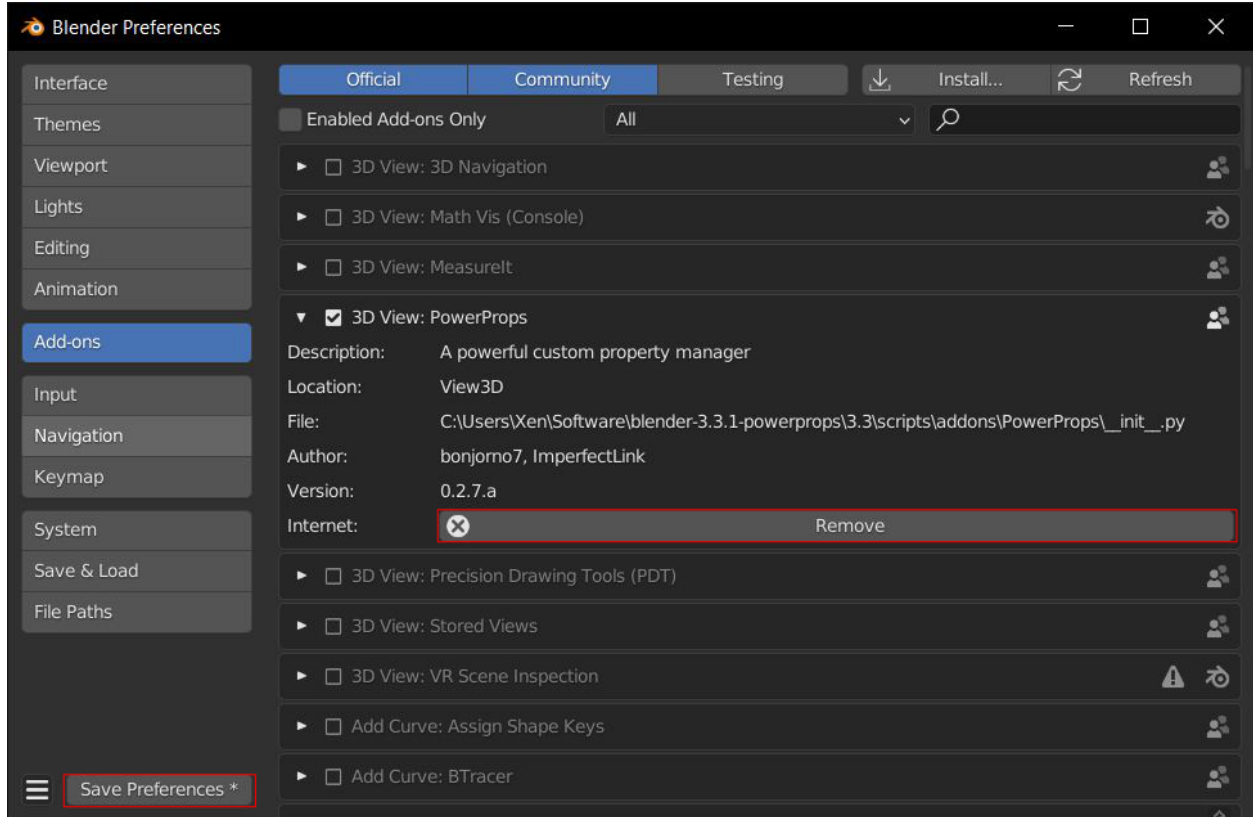
2.2 Installation



Install PowerProps in the typical way. Open up Blender preferences, click on Addons and then the Install button. Direct it to the zip file and click Install Addon. Enable the addon using the checkbox and save your preferences to ensure PowerProps will be enabled when you next open Blender.



2.2.1 Remove



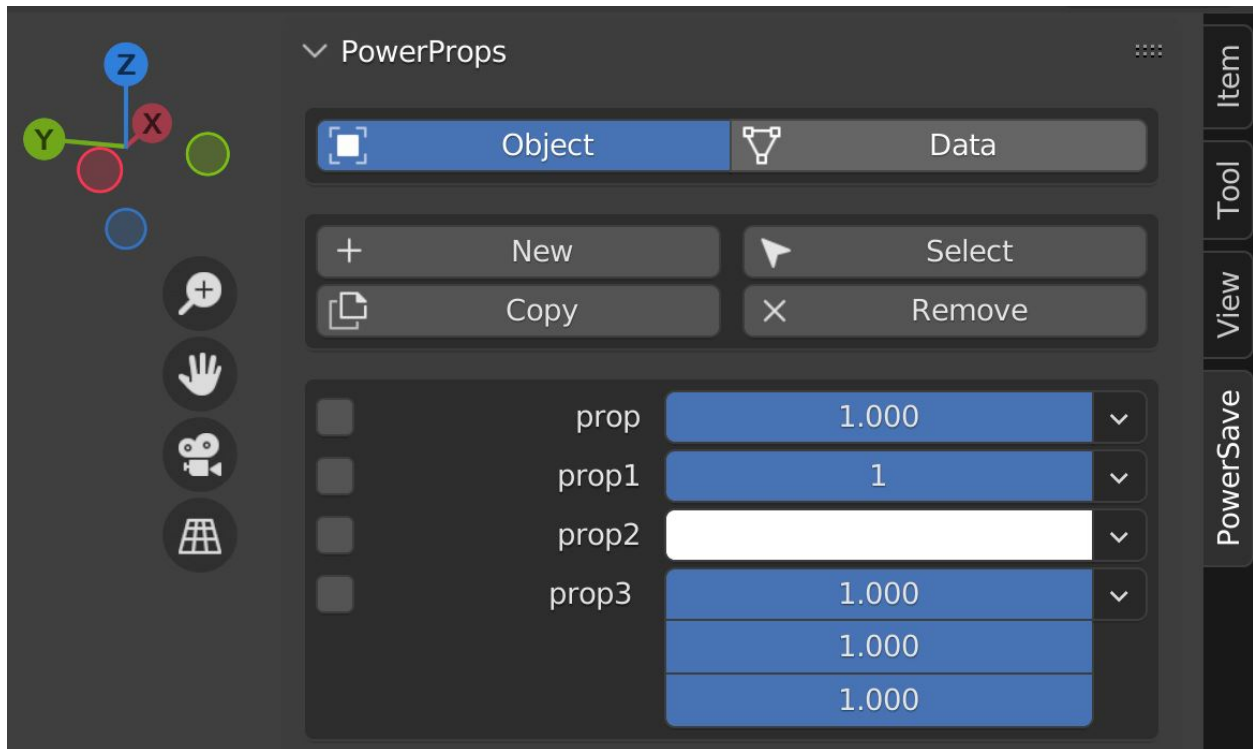
Disable the addon using the checkbox and then click the remove button to remove the addon.

2.2.2 Upgrade

To upgrade to a newer version of PowerProps, you need to first remove the existing addon, restart Blender, then install the new one. This is common practice with Blender addons and may cause issues if done differently.

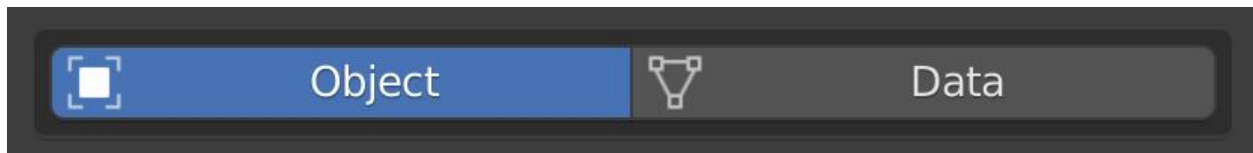
2.3 Interface

The PowerProps panel is simple yet it hides a lot of useful functionality on secondary layers. Mouse-over the buttons to view additional functions that they offer while holding a modifier key.

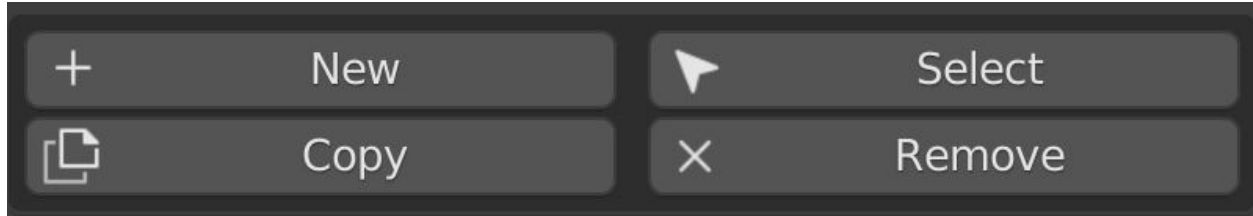


2.3.1 Location

First choose whether to view properties that are stored on the object or in object data. The typical use case will be on the object itself so that object data can be reused but you may occasionally have a reason to store custom properties in object data.

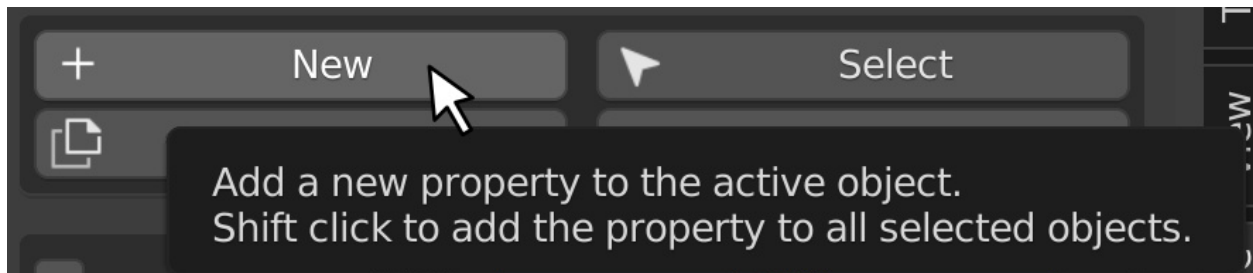


2.3.2 Buttons



2.3.2.1 New

Clicking the New button will create a new custom property on your object and immediately invoke the Edit Property dialog which will allow you to set a type, give it a name, a default value and a range in which to operate.



You can set soft limits to corral values within a certain range while still allowing the user to manually type in more extreme values. You may also want to set stepping and precision control and write a short description to help the user understand how to use the property. The checkbox at the bottom will allow you to do this to all selected objects at once. Shift-clicking the New button will have this option pre-enabled.

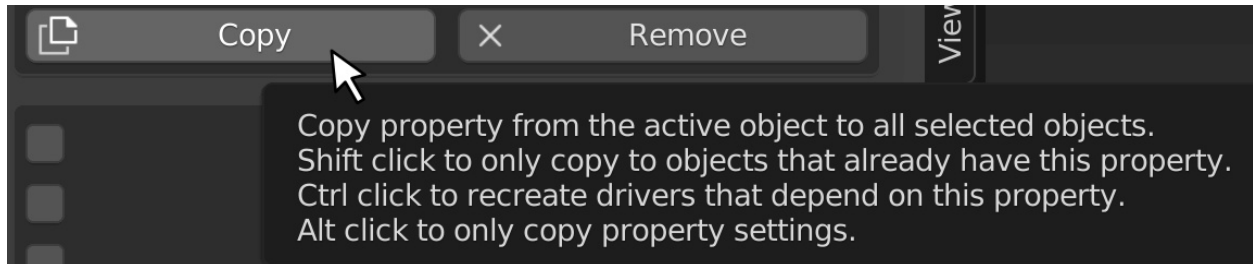
Edit Property

Type	<input type="text" value="Float"/>
property_name	<input type="text" value="prop"/>
Default Value	<input type="text" value="1.00"/>
Min	<input type="text" value="0.00"/>
Max	<input type="text" value="1.00"/>
	<input type="checkbox"/> Library Overridable
	<input type="checkbox"/> Soft Limits
Soft Min	<input type="text" value="0.00"/>
Max	<input type="text" value="1.00"/>
Step	<input type="text" value="1.00"/>
Precision	<input type="text" value="3"/>
Description	<input type="text"/>
	<input type="checkbox"/> Edit Selected
<input type="button" value="OK"/>	

The following three buttons require you to have a property selected using its adjacent checkbox to the left of the panel.

2.3.2.2 Copy

Simply clicking the Copy button will copy selected custom properties and their current values from the active object to all other selected objects.



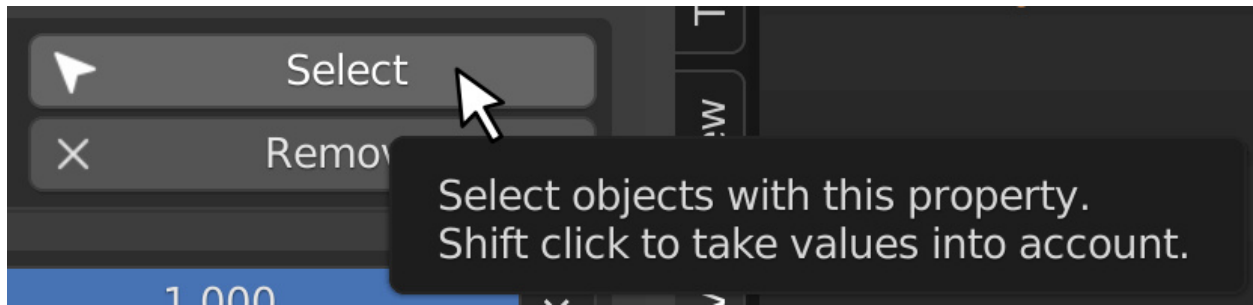
Shift-clicking the Copy button will only copy the value of the selected custom property to objects that have the corresponding property while ignoring others.

Control-clicking the Copy button will not only copy the selected custom properties and values but also discreetly copy their connected drivers so that destination objects have individual control.

Alt-clicking the Copy button will copy the property to objects that don't already have it and use the default value instead of the value on the active object.

2.3.2.3 Select

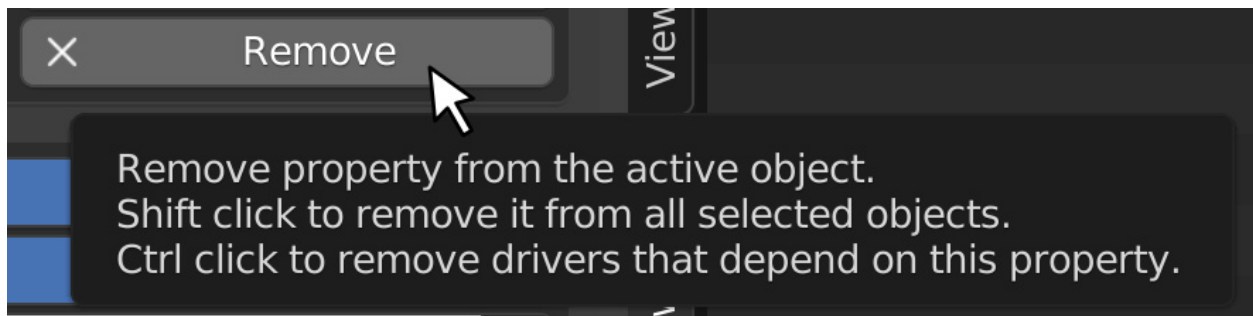
Clicking the Select button will select all visible objects that also contain the selected property. If you have two selected properties, it will select the objects that contain both properties.



Shift-clicking the Select button will select all visible objects that match the value of the selected property. With two selected properties, it will select the objects that satisfy both values.

2.3.2.4 Remove

Clicking the Remove button will remove the selected custom properties from the active object.

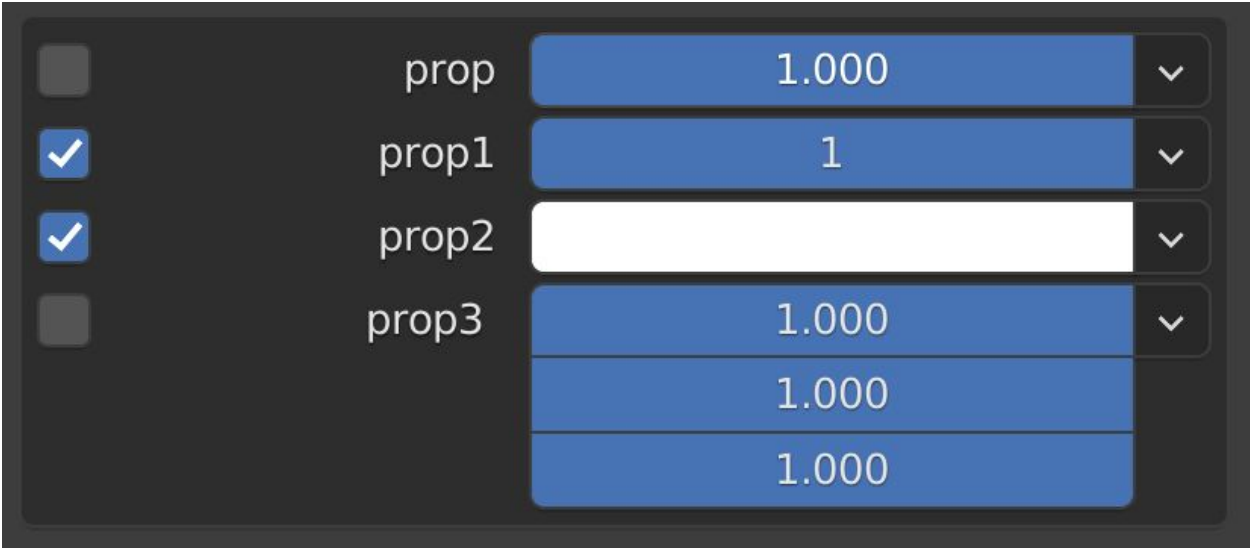


Shift-clicking will remove the selected custom properties from all selected objects.

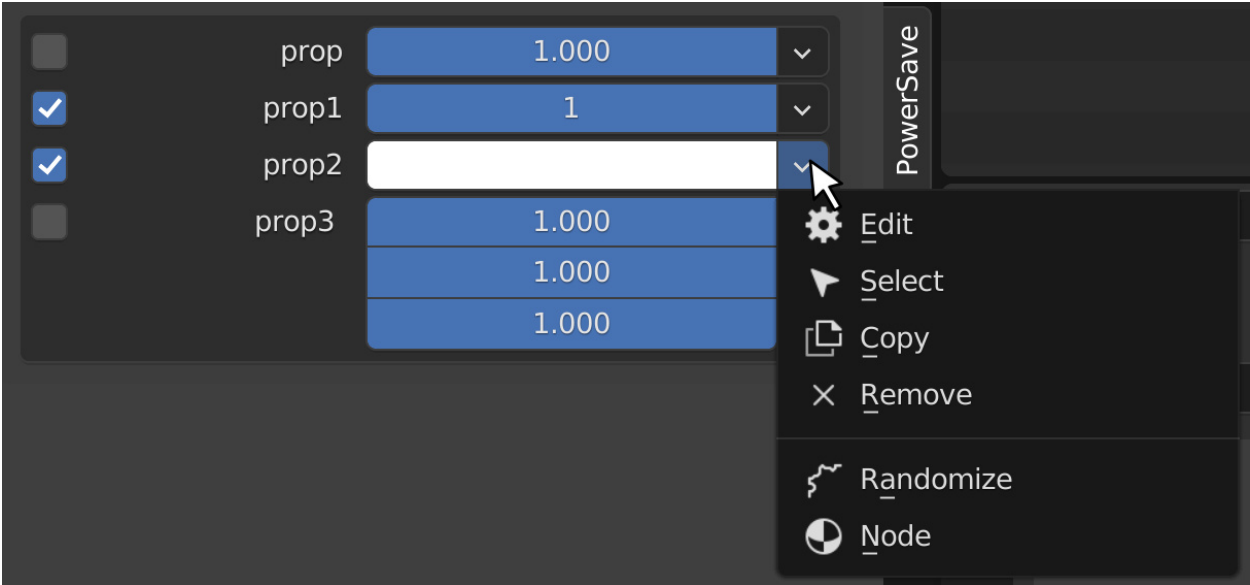
Control-clicking the Remove button will remove the drivers that depend on the selected properties.

2.3.3 Properties List

The Properties List displays all the of the custom properties on the active object. The checkboxes allow you to select multiple custom properties to perform your Copy, Select or Remove actions.



Each custom property has its own dropdown that allows you to perform the actions above as well as edit the property itself, randomize the values within a range and create a material Attribute node within the active material that is preloaded with the relevant information to utilize the custom property.



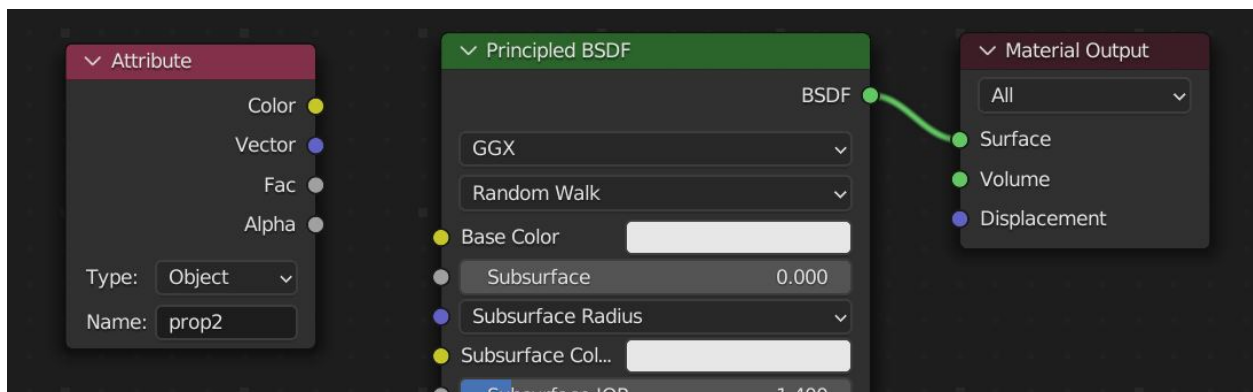
2.3.3.1 Randomize

Clicking Randomize will invoke the redo panel in the bottom left of the 3d viewport that allows you to change variables for the randomize function such as the seed, the range and the objects that it is affecting. Randomize is only available to properties with numeric values.



2.3.3.2 Node

Clicking the Node option will create an Attribute node in the active material. This node is prepopulated with the information you need to use the custom attribute and you can access it in the Material Editor.



2.4 Common Use Cases

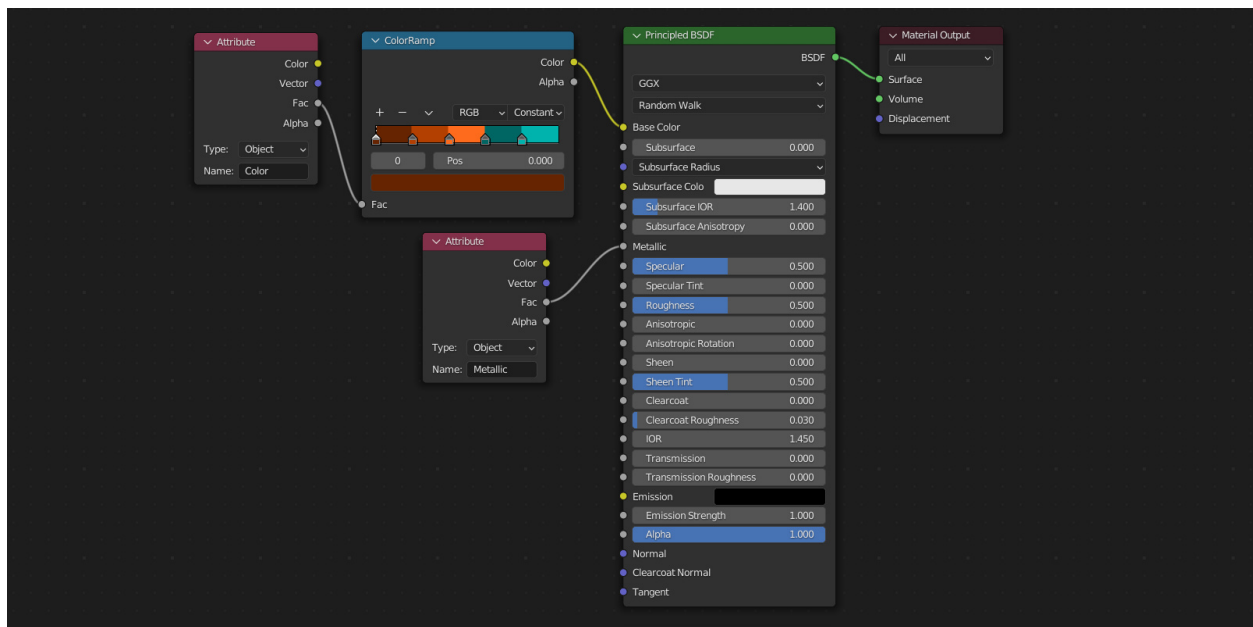
2.4.1 Materials

2.4.1.1 Color

Create a new property and set it to The Float Array type and Linear Color subtype. Next click the dropdown on the right side of the property and choose Node. Plug the new node into a color input in the material editor. You can now use this color control on any object that has this material applied as well as the custom property.

2.4.1.2 Values

Create a new property and click the dropdown on the right side of the property and choose Node. Plug the new node into a factor input in the material editor. You can now use this property to control any aspect of the material that needs a 0-1 value.



2.4.1.3 Switch

Create a new property and set its type to Integer. Use the material node to control any aspect of your material that requires 0/1 on/off switch.

2.4.1.4 Vector

Create a new property and set the type to float array. Use this property anywhere you need a vector in the material. For example to offset UV coordinates when plugged into a mapping node.

The following workflows require drivers and will need to be copied with Ctrl Click.

2.4.2 Modifiers

Right click on a value field in a modifier and choose Drive With Property. This will create a driver and a property that controls the corresponding settings. For example controlling the size number of segments in a bevel.

2.4.3 Geometry Nodes

Connect the desired input value to the group input of your geometry nodes network. Right click on the new input in the geometry nodes modifier in the modifier properties and choose Drive With Property.

2.4.4 Constraints

Right click on a value field in a constraint and choose Drive With Property. This will create a driver and a property that controls the corresponding value.

2.4.5 Viewport Display Settings

Right click on a display setting and choose Drive With Property.