



## 30 Editors - Preferences

### Table of content

Detailed Table of content.....	2
Preferences.....	9
Navigation Sidebar.....	9
Interface Tab.....	10
Display Panel.....	10
Editors Panel.....	11
Translation Panel.....	12
Text Rendering Panel.....	14
Interface Font.....	14
Monospace Font.....	14
Menus Panel.....	14
Pie Menus.....	14
Themes.....	15
Presets.....	15
Install.....	16
Reset.....	16
List of Editors.....	16
Viewport.....	16
Display.....	16
Quality.....	18
Textures.....	18
Selection.....	19
Lights.....	19
Studio Lights.....	19
MatCaps.....	21
LookDevHDRI's.....	21
Editing.....	21
Objects.....	22
3D Cursor.....	23
Annotations.....	23
Weight Paint.....	23
Grease Pencil.....	25
Text.....	25
Node Editor.....	25
Miscellaneous.....	26
Animation.....	26
Timeline.....	27
Addons.....	29
Header.....	29
Input.....	30
Keyboard.....	30
Mouse.....	31
Tablet.....	31
Touchpad.....	31
NDOF.....	32
Navigation.....	33
Orbit & Pan.....	33

Zoom.....	34
Fly & Walk.....	34
Keymap.....	36
Header.....	36
Key map Editor.....	36
System.....	38
Cycles Render Devices.....	38
Operating System Settings.....	39
Memory and Limits.....	39
Video Sequencer.....	40
Sound.....	41
Save & Load.....	42
Blend Files.....	42
File Browser.....	44
File Paths.....	45
Data.....	45
Script Directories.....	45
Render.....	46
Applications.....	46
Development.....	46
Asset Libraries.....	47
Experimental.....	48

## Detailed Table of content

### Detailed table of content

Detailed Table of content.....	2
Preferences.....	9
Navigation Sidebar.....	9
Save Preferences menu.....	9
Auto Save preferences.....	9
Save current State.....	9
Revert to Saved.....	9
Load Factory Settings.....	9
Interface Tab.....	10
Display Panel.....	10
Resolution Scale.....	10
Line Width.....	10
Viewport Line Width.....	10
Splash Screen.....	10
Tool tips.....	11
Python Tool tips.....	11
Developer Extras.....	11
Sort Search by Most Recent.....	11
Editors Panel.....	11
Region Overlap.....	11
Color Picker Type.....	11
Header Position.....	12
Factor Display Type.....	12
Temporary Editors subpanel.....	12

Render in.....	12
File browser.....	12
Status Bar subpanel.....	12
Translation Panel.....	12
Language.....	12
Tool tips.....	12
Interface.....	12
New Data.....	13
Text Rendering Panel.....	14
Anti Aliasing.....	14
Hinting.....	14
Interface Font.....	14
Monospace Font.....	14
Menus Panel.....	14
Open on Mouse Over.....	14
Top Level.....	14
Sub Level.....	14
Pie Menus.....	14
Animation Timeout.....	14
Top Key Timeout.....	14
Recenter Timeout.....	14
Radius.....	15
Threshold.....	15
Confirm Threshold.....	15
Themes.....	15
Presets.....	15
Create new Theme.....	15
Install.....	16
Reset.....	16
List of Editors.....	16
Viewport.....	16
Display.....	16
Text Info Overlay.....	16
Object Info.....	16
View Name.....	17
Playback Frame Rate (FPS).....	17
Frame Rate Samples.....	17
Gizmo Size.....	17
HDR Preview size.....	17
3D Viewport Axis.....	17
Off.....	17
Simple Axis.....	17
Size.....	17
Brightness.....	17
Interactive Navigation.....	17
Size.....	17
Fresnel in Edit Mode.....	18
Quality.....	18
Viewport Anti-Aliasing.....	18
Multi sampling.....	18
Grease Pencil Multi sampling.....	18
Edit Mode Smooth Wires.....	18
Textures.....	18

Limit Size.....	18
Anisotropic Filtering.....	18
Clip Alpha.....	19
Image Display Method.....	19
Selection.....	19
Lights.....	19
Studio Lights.....	19
Install.....	19
Preview Window.....	20
Delete Studio Light.....	20
Copy Studio Light settings to the Studio Light Editor.....	20
Edit Studio Light.....	20
Save as Studio Light.....	20
Use Light.....	20
Diffuse.....	20
Specular.....	20
Smooth.....	20
Direction.....	20
MatCaps.....	21
LookDevHDRI's.....	21
Editing.....	21
Objects.....	22
New Objects.....	22
Link Materials To.....	22
ObData.....	22
Object.....	22
Align To.....	22
World.....	22
View.....	22
Enter Edit Mode.....	22
Instance Empty Size.....	22
Duplicate Data.....	22
3D Cursor.....	23
Cursor Surface Project.....	23
Cursor Lock Adjust.....	23
Annotations.....	23
Default Color.....	23
Eraser radius.....	23
Weight Paint.....	23
Use Custom Colors.....	23
Tools Menu.....	24
Background Color.....	24
Gradient Stroke Mode.....	24
Grease Pencil.....	25
Manhattan Distance.....	25
Euclidean Distance.....	25
Text.....	25
Auto-close Character Pairs.....	25
Node Editor.....	25
Auto Offset.....	25
Auto Offset Margin.....	25
Preview Resolution.....	25
Miscellaneous.....	26

Sculpt Overlay Color.....	26
Animation.....	26
Timeline.....	27
Allow negative Frames.....	27
Minimum Grid Spacing.....	27
Time Code Style.....	27
Zoom To Frame Type.....	27
Keyframes.....	27
Default Key channels.....	27
Visual Keying.....	27
Only Insert Needed.....	27
Auto Keyframing.....	28
Show Warning.....	28
Only Insert Available.....	28
Enable in new scenes.....	28
F-Curves.....	28
Unselected Opacity.....	28
Default Smoothing Mode.....	28
Default Interpolation.....	28
Default Handles.....	28
XYZ to RGB.....	28
Channel Group Colors.....	29
Only Show Selected F-Curve Keyframes.....	29
F-Curve High Quality Drawing.....	29
Addons.....	29
Header.....	29
Official / Community / Testing.....	29
Install Add-on.....	29
Refresh.....	30
Category.....	30
Search.....	30
List of Addons.....	30
Input.....	30
Keyboard.....	30
Emulate Numpad.....	30
Default to advanced numeric input.....	30
Mouse.....	31
Emulate 3 Button Mouse.....	31
Tablet.....	31
Tablet API.....	31
Max Threshold.....	31
Softness.....	31
Touchpad.....	31
Multi Touch Gestures.....	31
NDOF.....	32
Pan Sensitivity.....	32
Orbit Sensitivity.....	32
Deadzone.....	32
Navigation.....	32
Rotation.....	32
Show Navigation Guide.....	32
Invert Zoom.....	32
Lock Camera Pan/Zoom.....	32

Pan Swap Y and X Axes.....	32
Invert Axis Pan.....	32
Orbit.....	32
Fly / Walk.....	33
Lock Horizon.....	33
Helicopter Mode.....	33
Navigation.....	33
Orbit & Pan.....	33
Orbit Method.....	33
Orbit around selection.....	33
Auto Perspective.....	33
Auto Depth.....	33
Smooth View.....	33
Rotation Angle.....	34
Zoom.....	34
Zoom Method.....	34
Continue.....	34
Dolly.....	34
Scale.....	34
Zoom Axis.....	34
Invert Mouse Zoom Direction.....	34
Invert Wheel Zoom Direction.....	34
Zoom to Mouse Position.....	34
Fly & Walk.....	34
View Navigation.....	35
Walk.....	35
Reverse Mouse.....	35
Mouse Sensitivity.....	35
Teleport Duration.....	35
Walk Speed.....	35
Speed Factor.....	35
Gravity.....	35
View Height.....	35
Jump Height.....	35
Fly.....	35
Keymap.....	36
Header.....	36
Key Configs.....	36
Import.....	36
Export.....	36
Filter Type.....	36
Search Field.....	36
Key map Editor.....	36
Map Type.....	37
Type of Event.....	37
Operator.....	37
Type of Event.....	37
Value.....	37
Secondary hotkeys.....	37
Specific settings.....	38
Restore.....	38
System.....	38
Cycles Render Devices.....	38

None.....	38
CUDA.....	39
OptiX.....	39
HIP.....	39
oneAPI.....	39
Operating System Settings.....	39
For all Users.....	39
Make default.....	39
Memory and Limits.....	39
Undo Steps.....	39
Undo Memory Limit.....	39
Global Undo.....	39
Console Scrollback Lines.....	40
Texture Time Out.....	40
Garbage Collection Rate.....	40
VBO Time Out.....	40
Garbage Collection Rate.....	40
Video Sequencer.....	40
Memory Cache Limit.....	40
Use Disk Cache.....	40
Directory.....	40
Cache Limit.....	40
Compression.....	40
Proxy Setup.....	40
Automatic.....	41
Manual.....	41
Sound.....	41
Audio Device.....	41
OpenAL.....	41
OpenAL - OpenAL Soft.....	41
SDL.....	41
Null.....	41
Channels.....	41
Mixing Buffer.....	41
Sample Rate.....	42
Sample Format.....	42
Save & Load.....	42
Blend Files.....	42
Relative Paths.....	42
Compress File.....	42
Load UI.....	42
File Preview.....	43
None.....	43
Auto.....	43
Screenshot.....	43
Camera Preview.....	43
Tabs as Spaces.....	43
Save Prompt.....	43
Save Versions.....	43
Recent Files.....	43
Auto Save.....	43
Auto Save Temporary File.....	43
Timer.....	44

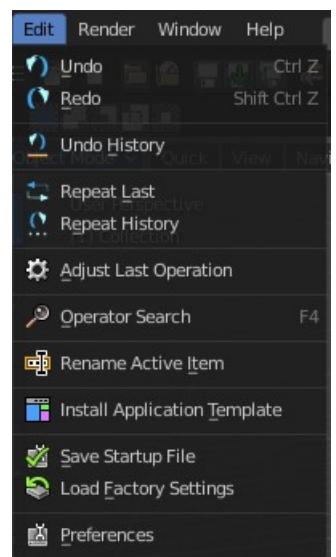
Auto Run Python Scripts.....	44
Excluded paths.....	44
File Browser.....	44
Filter Files.....	44
Show Hidden File/Data.....	44
Show Recent Locations.....	44
Show System Bookmarks.....	44
File Paths.....	45
Data.....	45
Fonts.....	45
Textures.....	45
Sounds.....	45
Temporary Files.....	45
Script Directories.....	45
Render.....	46
Render Output.....	46
Render Cache.....	46
Applications.....	46
Image Editor.....	46
Animation Player.....	46
Text Editor.....	46
Program.....	46
Arguments.....	46
Development.....	46
I18n Branches.....	46
Asset Libraries.....	47
Asset List.....	47
Add.....	47
Remove.....	47
Path.....	47
Import Method.....	47
Append (Reuse Data).....	47
Append.....	47
Link.....	47
Relative Path.....	47
Experimental.....	48

# Preferences

The Preferences is the place where you can tweak several settings to your needs. It can be opened in the Edit menu in the top bar.

The Preferences contains several tabs. And every tab contains several rows or panels with content. We will go through them one by one.

When you have changed something, and want that changes to be permanent, then you are required to save the user settings. See the Save User Settings button in the header.



## Navigation Sidebar

At the left side you will find the navigation elements to access the different categories. At the bottom resides the Save Preferences menu.

## Save Preferences menu

### **Auto Save preferences**

Changes at the preferences are saved automatically when Auto Save Preferences is ticked. When this option is off, then changes needs to be saved manually. When you don't save the changes, then Bforartists loads the next time with the status before the changes.

### **Save current State**

Manually saves the current state.

### **Revert to Saved**

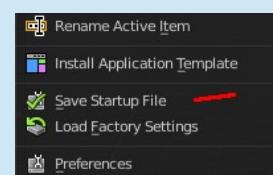
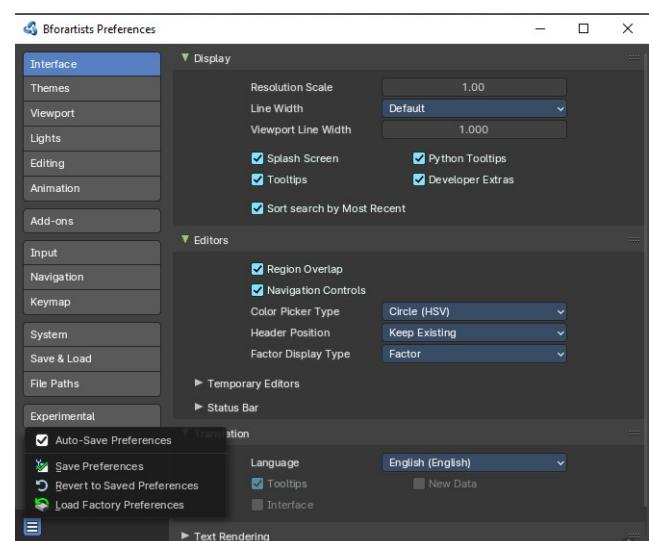
This option is just available when Auto Save preferences is off. It reverts the settings to the last saved state.

### **Load Factory Settings**

Resets the settings to the factory defaults.

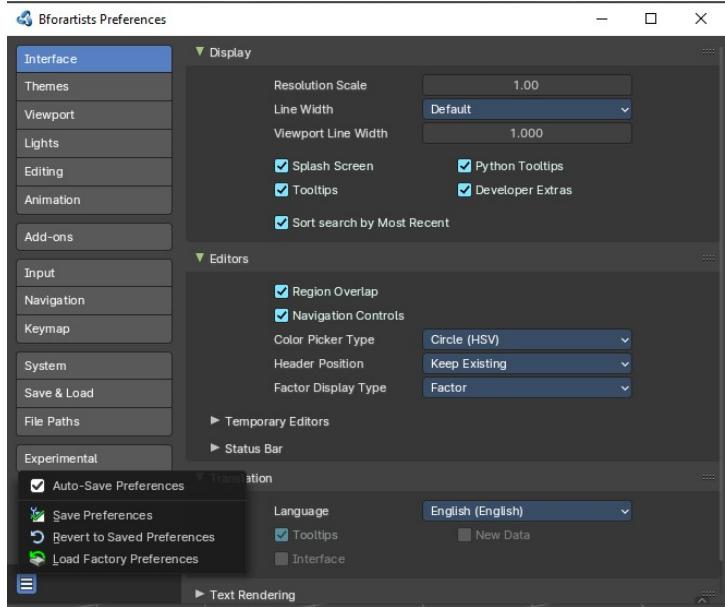
#### Note

Not everything can be changed from the Preferences. Everything regarding layout is stored in the Startup File, and not in the Preferences. So when you want to save a layout change then you have to save the startup file. The menu item is right above the Preferences button in the Edit menu.



# Interface Tab

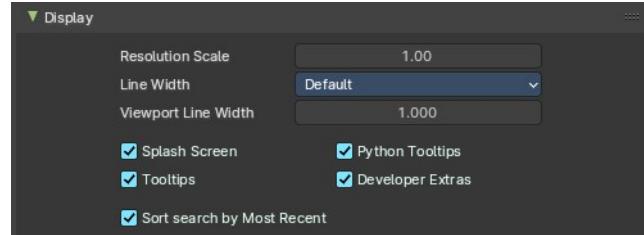
The Interface category contains settings to change how UI elements are displayed and how they react.



## Display Panel

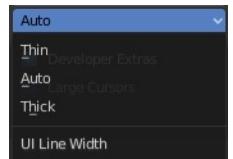
### Resolution Scale

At 4K displays the whole UI elements are usually ways too small. Scale the whole UI size display by moving the slider to the needed value.



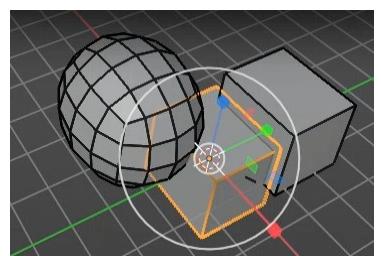
### Line Width

Define the size of the line between the editors. This is a theming setting.



### Viewport Line Width

Changes the appearance of only lines in the 3D Viewport.



### Splash Screen

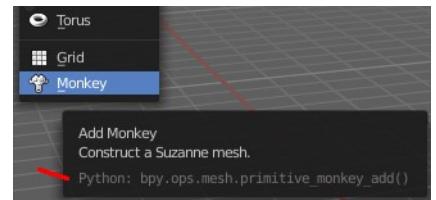
Display the Splash Screen when starting Bforartists.

## Tool tips

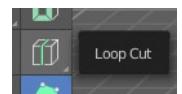
Display tool tips in the UI. With this feature unticked you won't see any tool tips anymore. It is not recommended to turn this feature off. The icon buttons needs the tool tips to display the tool name.

## Python Tool tips

Every tool tip can also display the Python code tag for the tool. It may look like noise in the first moment. But can give you some further hints here and there. Some tool tips, like the Node editor buttons, doesn't have a proper tool description by design. Here the Python tool tip can tell you the function when you turn it into pure icon buttons.



The tools in the tool shelf doesn't have a Python tool tip by design. This buttons sits on top of the normal operators, and doesn't access the tool tip of it.



Note: It is not recommended to turn the Python tool tips off.

## Developer Extras

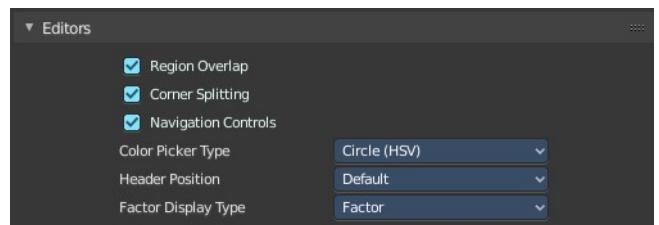
This tick box turns on or off the developer entries in the right click menus.



## Sort Search by Most Recent

This affects all search fields in Bforartists. Sort the recently searched items at the top.

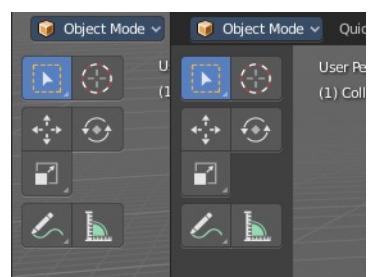
## Editors Panel



## Region Overlap

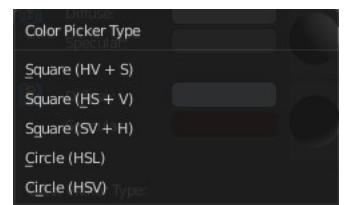
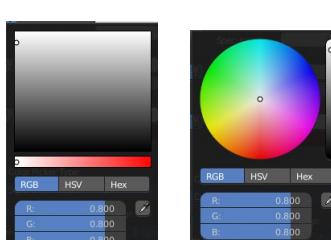
This checkbox will enable Blender to draw the Header, Tool Shelf and the Sidebar overlapping the 3D View. The transparent areas becomes workspace area. You can for example select vertices now in the transparent areas.

If you have a capable graphics card and drivers with *Triple Buffer* support, clicking the checkbox will enable the overlapping regions to be drawn using the *Triple Buffer* method, which will also enable them to be drawn using Alpha, showing the 3D View contents through the *Object Tools* and *Transform Properties* regions.



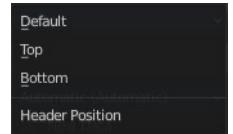
## Color Picker Type

Choose the type of Color picker that will show when you click on a color field. You can choose between three square types and two circle types.



## Header Position

Define at which default position the headers of the editors should reside.

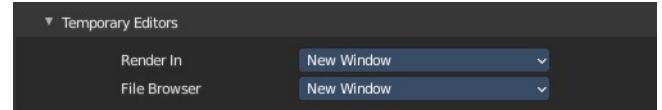


## Factor Display Type

Display factor values either as percentage or as factor.

## Temporary Editors subpanel

How the temporary editors behave.

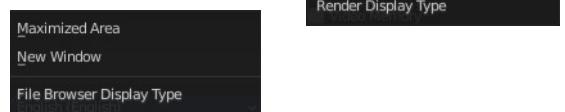


## Render in

Where to display the rendered image.

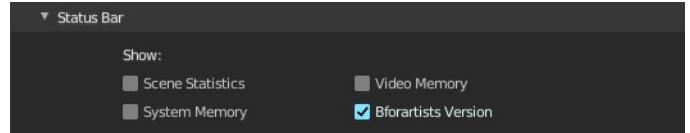
## File browser

Where to open the file browser.



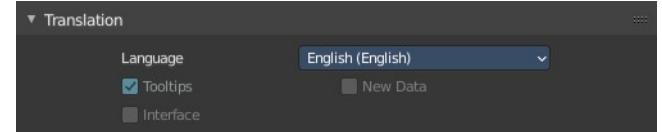
## Status Bar subpanel

What content to display in the status bar at the bottom.



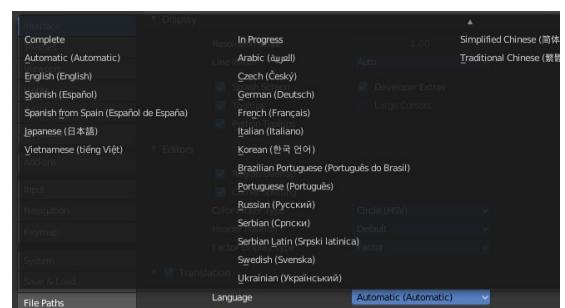
## Translation Panel

Choose another default language for Bforartists.



## Language

Choose between automatic language detection. In this case the system language gets chosen. Or pick a language that you want to use.



## Tool tips

Tool tips translates the tool tips too.

## Interface

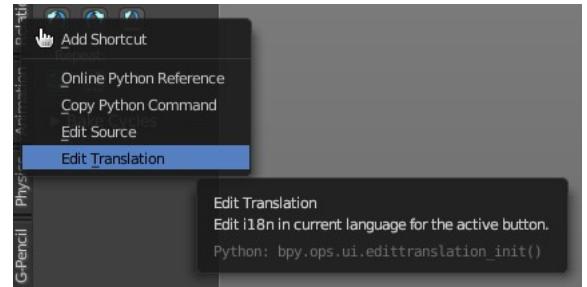
Interface translates all the interface texts

## New Data

New data is meant to edit the localization texts.

This can be done in the right click menus of the tools when everything is set up in the correct way.

This is a development feature. You need a repository of Bforartists!



### Note

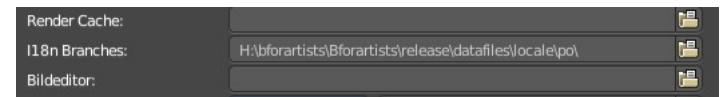
This feature is currently not functional in Bforartists. It ends in an error message.

Let's nevertheless document the way how it should work. Note that you need a Bforartists repository for that. The binary version does not come with the editable \*.po files, but with already compiled \*.mo files for the translation.

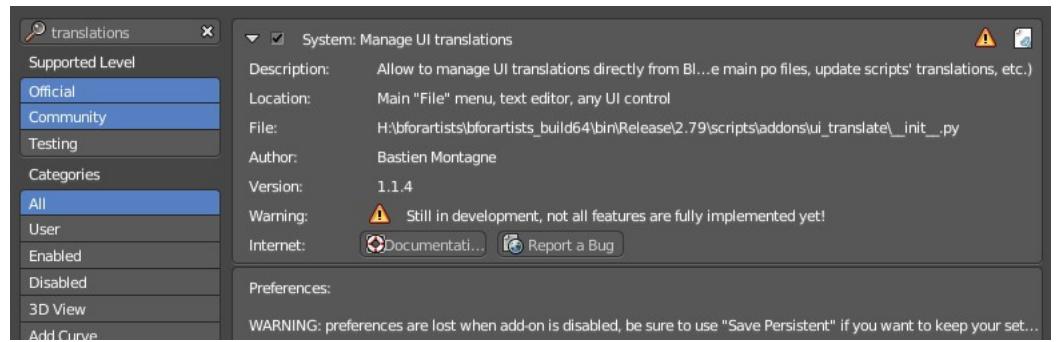
Note that you first need to set the path to the translation files for that. Or you will get an error. This is done in the File tab. The |18n string.



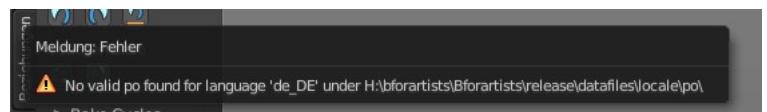
The path should lead to the \*.po files that you want to translate. Which can be found in the Bforartists repository.



And you need to enable the Manage UI translations add-on. And to fix the paths in this add-on. The default paths are currently set for Blender.



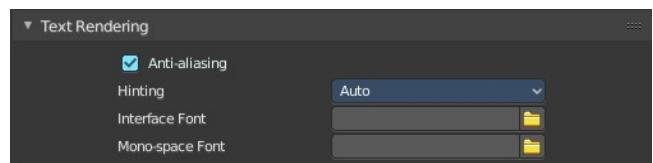
And then you might end in this error here ...



In case somebody has an idea what's going on here, every hint is welcome ...

## Text Rendering Panel

Text related settings for the font of the interface.



### Anti Aliasing

Use Anti Alias at the UI elements to prevent pixelated look of the font.



### Interface Font

Define a custom interface font. The font in the whole UI.

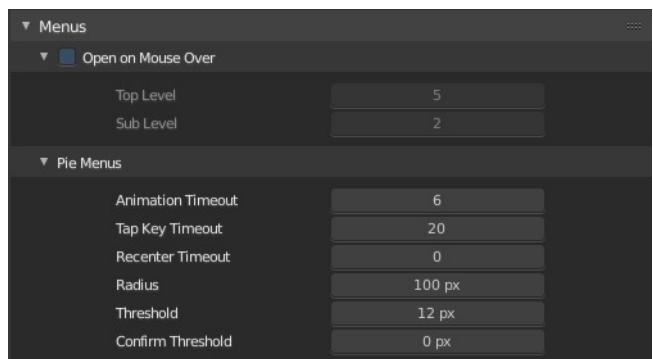
### Monospace Font

Define a custom Monospace font. That's the one used in the python console for example.

## Menus Panel

### Open on Mouse Over

Normally you click at a menu to open it. With Open on Mouse Over the menu opens up when you just hover with the mouse over it.



### Top Level

Adjust the time delay before the top level menu opens on mouse over.

### Sub Level

Adjust the time delay before a sub level menu opens on mouse over.

## Pie Menus

Bforartists has some pie menus that can be called by hotkeys. Here you find some settings for it.

### Animation Timeout

The pie menu fades in with an animation. Adjust the time needed to fully unfold the pie menu.

### Top Key Timeout

Pie menu button longer held than this time will dismiss the menu on release.

### Recenter Timeout

Pie menus will use the initial mouse position as center for this amount of time. The value is in 1/100 seconds.

## Radius

The pie menu size in pixels.

## Threshold

The distance that is needed from the center to move the mouse so that a selection can be made.

## Confirm Threshold

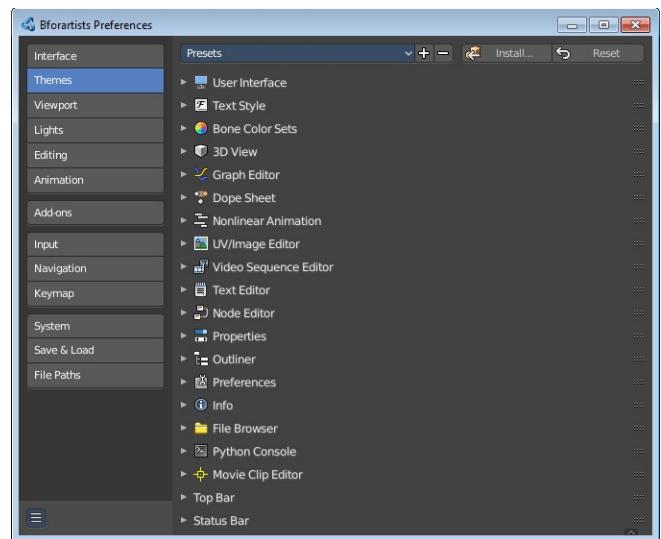
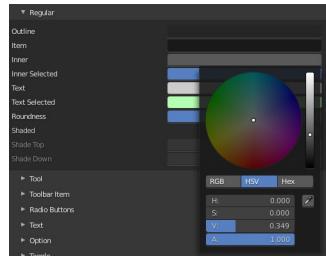
Distance threshold after which selection is made. A value of zero disables this feature.

# Themes

The Themes tab allows you to customize interface appearance and colors. There are various elements that can be themed.

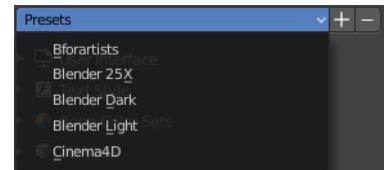
Any change here will appear in real-time on your screen in the corresponding editor.

To change a color for a UI element, simply click at one of the color fields. A color dialog will open up to choose a new color.



## Presets

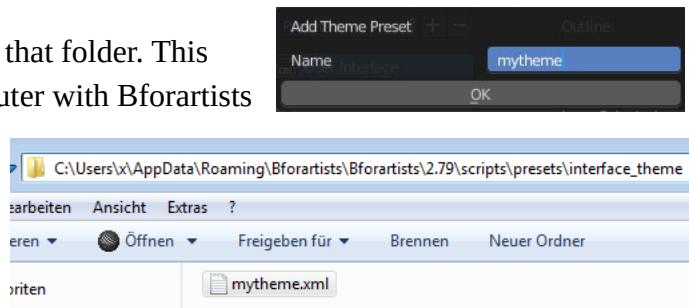
Bforartists comes with several theme presets. You can choose between them in the drop down box. Don't forget to save the user settings to make the change to the new preset permanent.



## Create new Theme

To create a new theme, click the + button next to the preset selection drop-down and enter a name. This will save the theme to an XML file in the `./scripts/presets/interface_theme/` sub directory of one of the configuration directories.

To share the new created theme you have to copy it from that folder. This XML file can then be loaded as a theme at another computer with Bforartists installed.



## Install

Install an external theme. This button will open a file browser.

## Reset

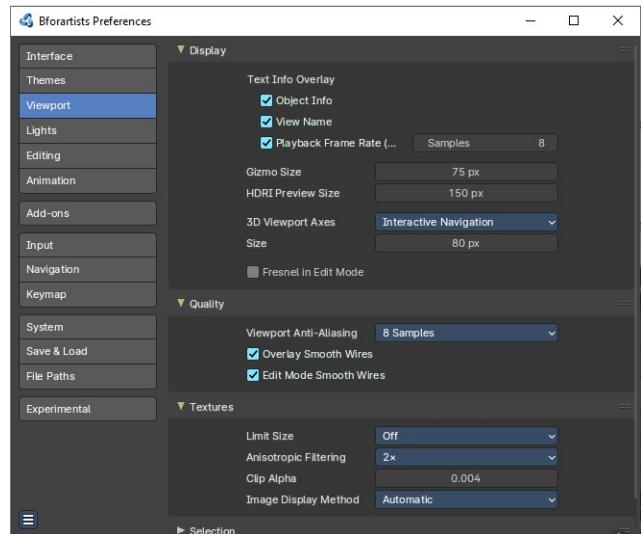
Resets all made changes, and resets the current theme to its initial state.

## List of Editors

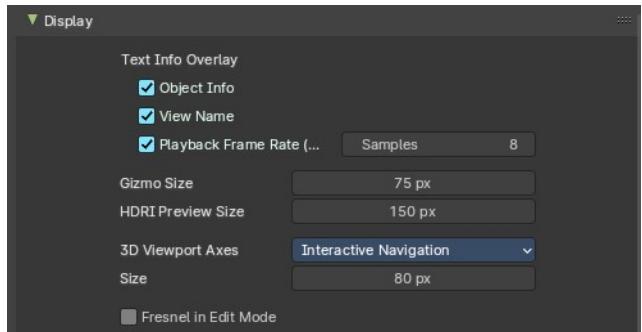
The list of the editors that you can theme. Every editor can have its own theming.

## Viewport

Contains the settings for the 3D Viewport.



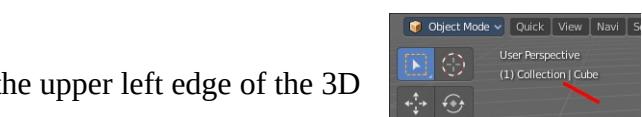
## Display



## Text Info Overlay

### Object Info

Display current frame, collection name and Object name in the upper left edge of the 3D



view.

The letters appears in yellow when the current frame of the selected object has a keyframe.



## **View Name**

Display the name of the current view up left in the 3D view.



## **Playback Frame Rate (FPS)**

Show the frames per second screen refresh rate while an animation is played back. It appears in the viewport corner, displaying red if the frame rate set cannot be reached. And replaces the View name while the animation is playing.

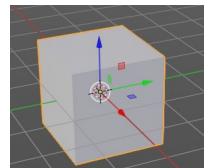


## **Frame Rate Samples**

The number of frames to use for calculating the fps average. A value of zero calculates the fps automatically, where the number of samples matches the target fps.

## **Gizmo Size**

Adjust the size of the transform gizmo that appears when you have one of the transform tools activated.



## **HDR Preview size**

How big the preview spheres are displayed.

## **3D Viewport Axis**

Adjust the appearance of the 3D Viewport mini axis widget.



### **Off**

Hides the Mini axis widget

### **Simple Axis**

Shows simple axis. This widget type is not interactive. It just shows the state of the viewport rotation.



### **Size**

The size of the simple mini axis widget.



### **Brightness**

The brightness of the simple mini axis widget.

## **Interactive Navigation**

The default mini axis widget. This widget is interactive. Clicking and dragging will rotate the viewport. Clicking at one of the colored spots at the end of the axis will snap to the nearest orthographic view.



### **Size**

The size of the interactive navigation widget.

## Fresnel in Edit Mode

Enable a fresnel effect on edit mesh overlays. This feature improves shape readability of very dense meshes. But can increase eye fatigue when modeling lower poly.

---

## Quality

Contains the settings to adjust the display quality in the viewport.

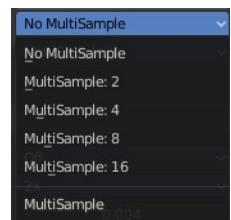


### Viewport Anti-Aliasing

The anti alias quality settings for the solid mode rendering in the 3d viewport.

### Multi sampling

Set the OpenGL Multi sampling in case your system supports it.



### Grease Pencil Multi sampling

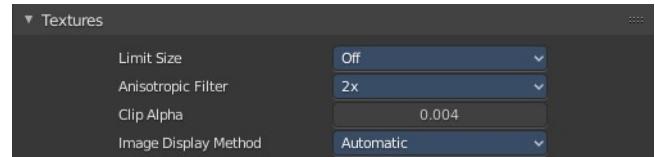
The grease pencil drawing has its own OpenGL Multi sampling. Set the OpenGL Multi sampling in case your system supports it.

### Edit Mode Smooth Wires

Enable Edit Mode edge smoothing which reduces anti alias and makes the edge more sharp. A change requires a restart of the software.

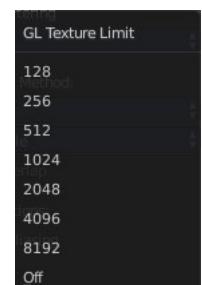
---

## Textures



### Limit Size

Limit the maximum resolution for pictures used in textured display to save memory. The limit options are specified in a square of pixels, (e.g.: the option 256 means a texture of 256×256 pixels) This is useful for game engineers, whereas the texture limit matches paging blocks of the textures in the target graphic card memory. Available Options are: *Off* (No limit), *128*, *256*, *512*, *1024*, *2048*, *4096*, and *8192*.



### Anisotropic Filtering

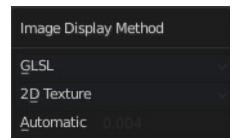
Sets the level of anisotropic filtering. This improves the quality of how textures are drawn at the cost of performance. Available Options are: *Off* (No Filtering), *2x*, *4x*, *8x*, and *16x*.

## Clip Alpha

Clip alpha when the value is below the here defined value.

## Image Display Method

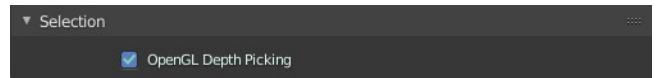
The method that is used to draw textures in the viewport.



## Selection

OpenGL Depth picking tries to pick the object in front.

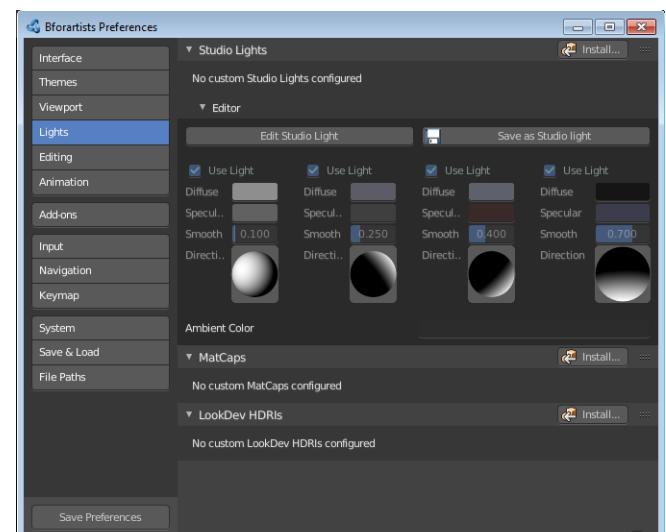
Without this method you may pick an object underneath.



# Lights

The viewport uses different light setups in different situations. You can switch between them in the shading drop down in the 3d view up right.

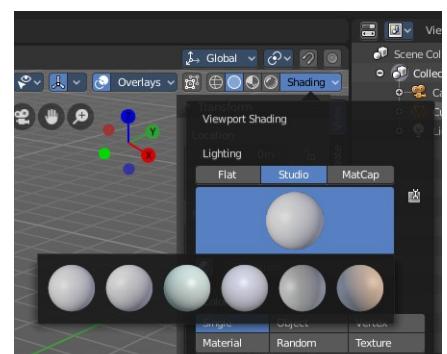
This tab allows you to customize these light setups. And install custom light setups.



## Studio Lights

The 3D view uses Solid OpenGL lamps to light the 3D view. You can enable four different light sources here. These lamps does not affect the rendering. Their only purpose is to light the 3D view.

You can turn on or off the lamps. But there should be at least one light enabled.



## Install

Install an external studio light.

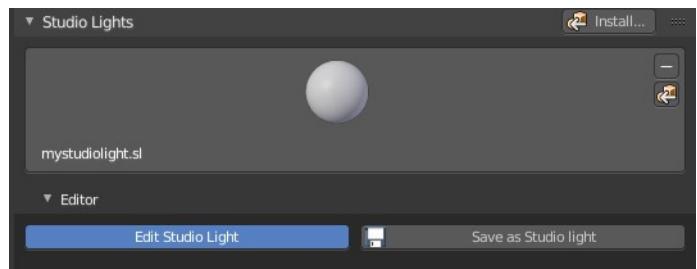
## Preview Window

This window appears when you have a studio light saved, or a new studio light installed.

Down left you can see the name of the saved library. mystudio.sl .

This window gives you a preview of how this studio light looks like in the 3D view then.

Up right you can find two buttons.



## Delete Studio Light

Deletes the studio light.

## Copy Studio Light settings to the Studio Light Editor

The editor settings does not update immediately. It shows the default studio light setting. So when you want to edit the studio light, then you want to press this button to update the editor values first.

## Edit Studio Light

Enable the editing of the studio light setup.

## Save as Studio Light

Save the current light setup as a studio light setup. Note that this does not export the light, but saves its settings internally in the appdata directory.

## Use Light

Turn on or off this specific light.

## Diffuse

**Diffuse** color is the constant color of the lamp.

## Specular

**Specular** is the highlight color of the lamp.

## Smooth

Smooth the lighting from this specific light.

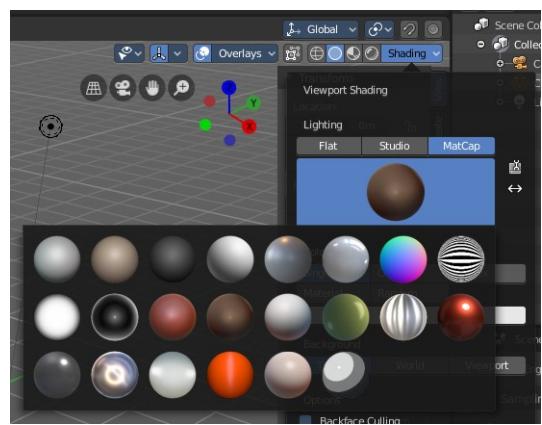
## Direction

Adjust the direction. Click into the field and drag the sphere around until you have your desired light setup.

## MatCaps

Matcaps is a special material that can be assigned quickly to preview geometry. Usually matcaps are used while sculpting. You can switch between them in the shading drop down in the 3d view up right.

Install and manage custom matcaps.

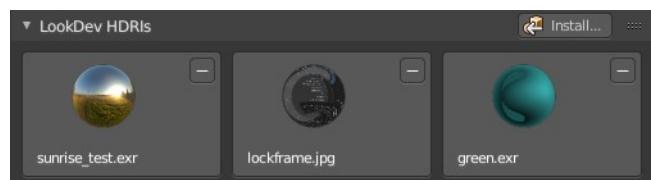
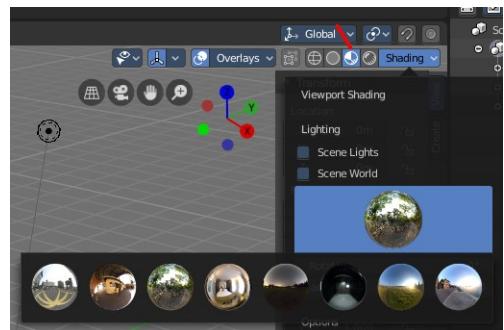


## LookDevHDRI's

You can light the scene with an environment image instead of lights. This is done with hdri images.

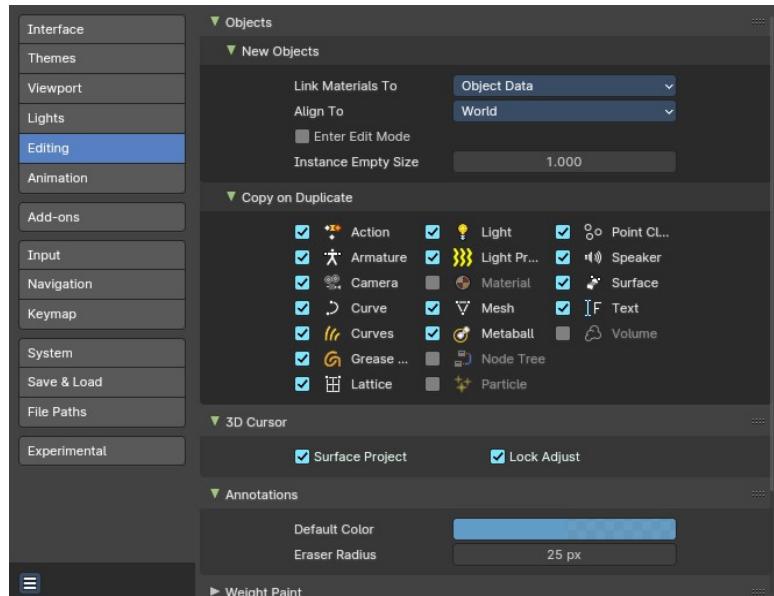
The viewport can do this in realtime when the shading is set to Viewport Shading.

Install and manage custom LookDev HDRI's. Basically every image could do the trick here. But the hdri's uses a special spherical mapping. So you better use hdri images for this purpose.



# Editing

Contains the settings around editing. Objects, Data, etc.

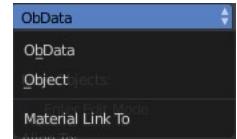
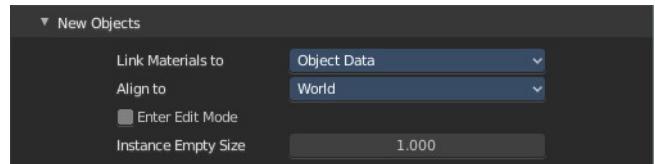


## Objects

### New Objects

#### **Link Materials To**

Define how materials will be linked to its objects. Almost everything in Bforartists is organized in a hierarchy of data-blocks. A data-block can be thought of as containers for certain pieces of information. For example, the Object data-block contains information about the Object's location while the Object Data **ObData** data-block contains information about the mesh.



#### **ObData**

Any created material will be created as part of the ObData data-block.

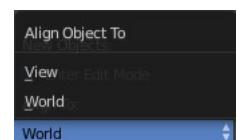
#### **Object**

Any created material will be created as part of the Object data-block.

#### **Align To**

#### **World**

New objects align with world coordinates.



#### **View**

New object align with view coordinates.

#### **Enter Edit Mode**

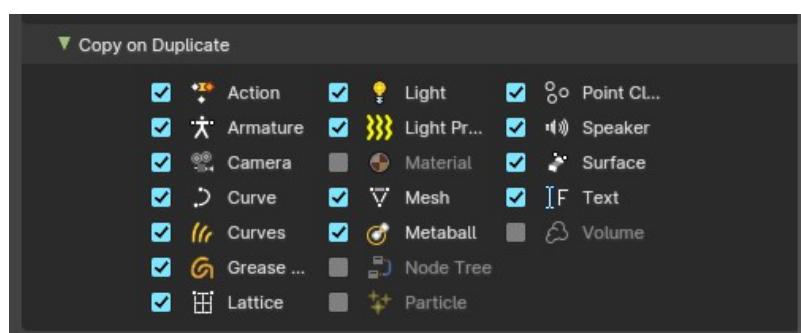
If selected, Edit Mode is automatically activated when you create a new object.

#### **Instance Empty Size**

Increase or decrease the size of collection empties.

## Duplicate Data

When you duplicate data, then most or all its subpart gets duplicated too. Define which supports should be duplicated when you duplicate an object.



## 3D Cursor

### Cursor Surface Project

Use the surface depth to place the 3D cursor. That way you can place the 3D cursor at the surface of an object.



### Cursor Lock Adjust

Place the cursor without a jumping effect at the new location when lock to cursor is used.

## Annotations

### Default Color

The default color for the annotations pencil.



### Eraser radius

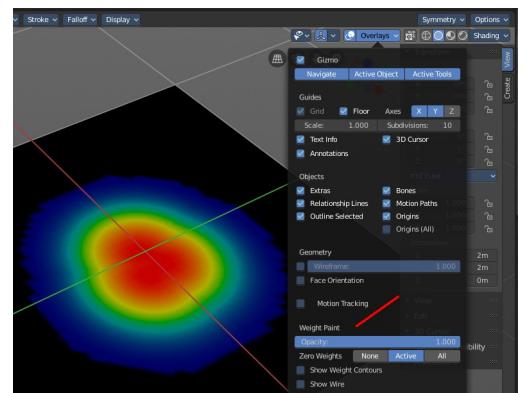
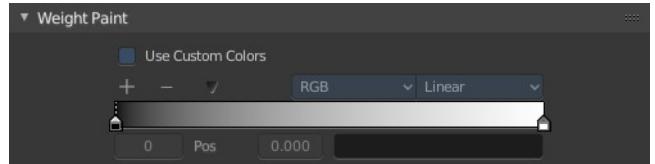
The eraser radius.

## Weight Paint

### Use Custom Colors

Bforartists uses by default a gradient that goes from red to green to blue to black to display the different weight at a mesh.

Setup a custom gradient for the colors of a weight paint.



**The + Button** adds a color stop point, which can be moved around. That way you can have more than one color in the gradient.

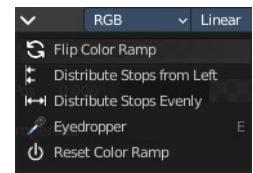


**The - Button** removes the currently selected color stop point.

## Tools Menu

**Flip Color ramp** flips the color ramp.

**Distribute Stops from Left** distributes the color stops from the left. The position at the right will remain empty.



**Distribute Stops evenly** distributes the color stops evenly across the gradient.

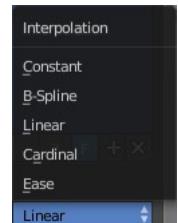
**Eyedropper** allows you to pick a color from the gradient.

**Reset color ramp** resets the color ramp to the default state.

**Color Mode** is a drop down box to choose the color mode for the gradient.



**Interpolation** is a drop down box to choose the interpolation mode for the gradient.



In the **Color Ramp element** you will see the color ramp with the single color stops.



**Choose Active Color Stop** is the stop point of the gradient.



**Position** is an edit box where you can numerically fine tune the position of the currently selected color stop.

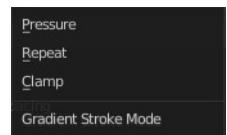
**Color Ramp Element** displays the color of the current selected color stop. When you click at it then you can open a color picker to change the color of the current color stop.

## Background Color

Background color is the same color than the secondary color from the color picker. When you click at it then you can open a color picker to change the secondary color.

## Gradient Stroke Mode

Set the gradient stroke mode.



## Grease Pencil



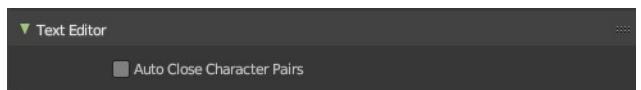
## Manhattan Distance

The minimum number of pixels the mouse has to move horizontally or vertically before the movement is recorded.

## Euclidean Distance

The minimum distance that mouse has to travel before movement is recorded.

## Text



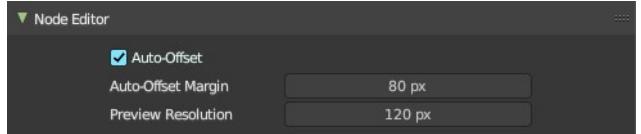
## Auto-close Character Pairs

Automatically close relevant character pairs when typing in the text editor.

## Node Editor

### Auto Offset

Use Auto Offset.

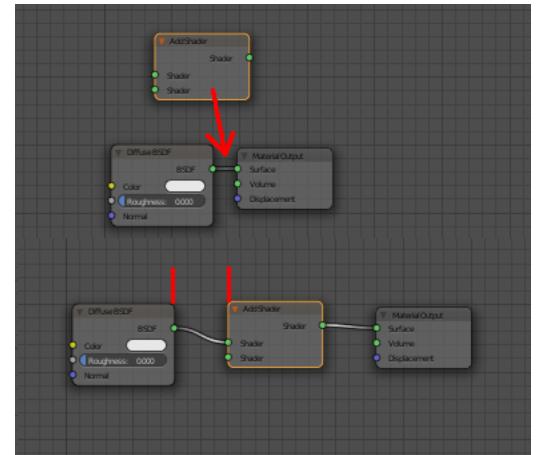


### Auto Offset Margin

Minimum distance in the node editor between nodes for auto offsetting.

When you insert a new node between two existing connected nodes, then the two nodes gets pushed to left and right, with an offset.

Adjust this offset.



## Preview Resolution

Resolution used for shader node previews, which are displayed above the nodes.

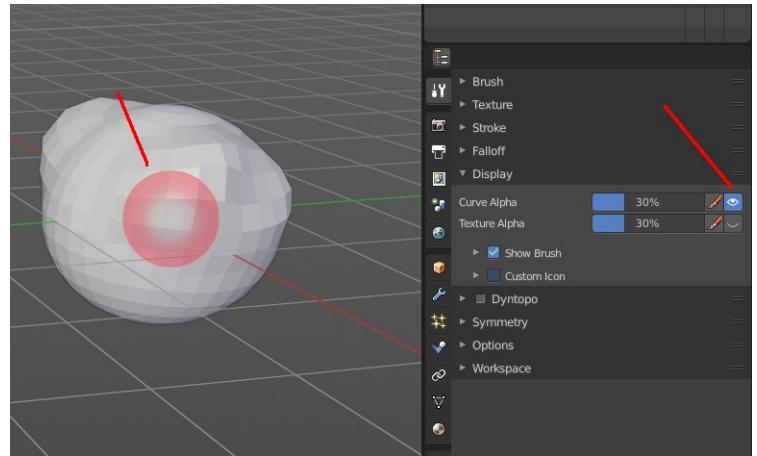
## Miscellaneous



### Sculpt Overlay Color

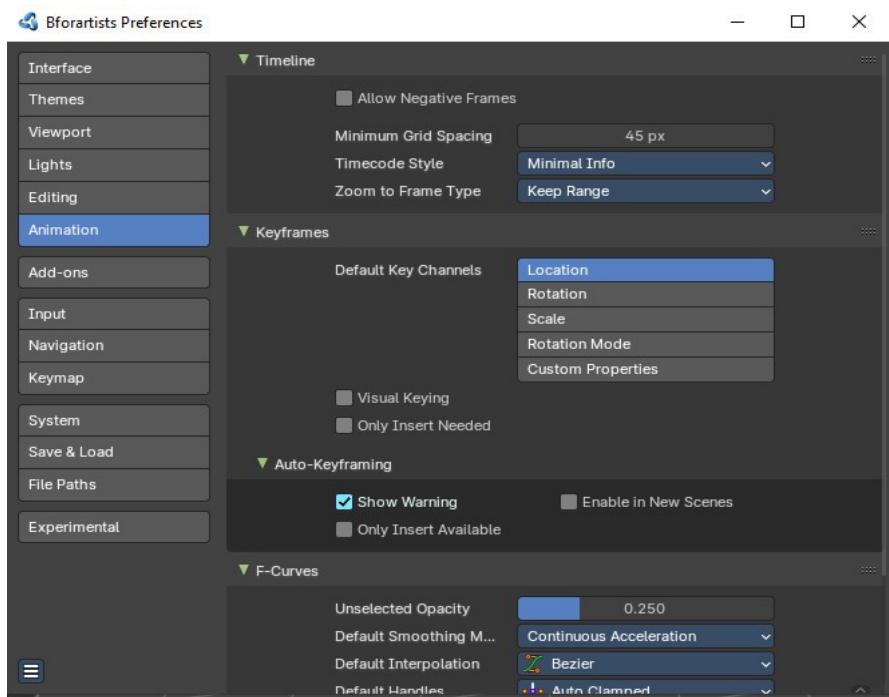
This color button allows the user to define a color to be used in the inner part of the brushes circle when in sculpt mode, and it is placed as an overlay to the brush, representing the focal point of the brush influence.

The overlay color is visible only when the overlay visibility is selected (clicking at the eye to set its visibility), and the transparency of the overlay is controlled by the alpha slider located at the brush pop-up, located at the top of the tool shelf, when in sculpt mode.



## Animation

Contains the settings for the animation editors.



## Timeline

### Allow negative Frames

### Minimum Grid Spacing

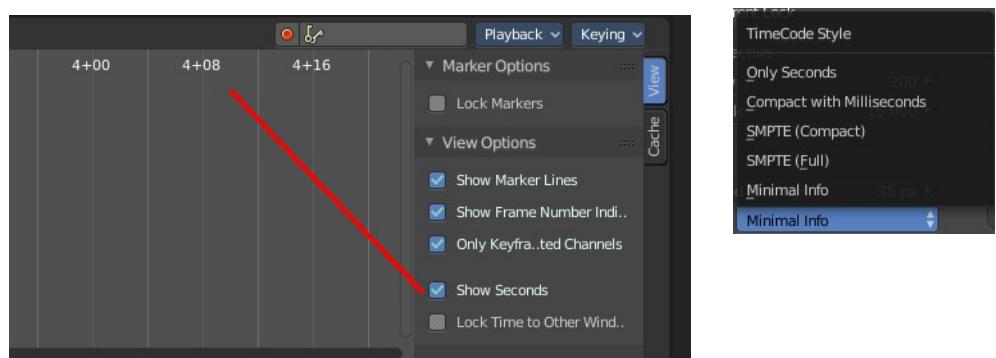
Adjust the minimum number of pixels between grid lines in a 2D viewport. This affects for example Timeline, Dope sheet, Graph or NLE Editor.



### Time Code Style

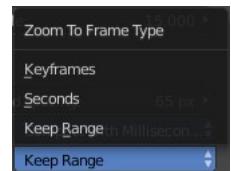
In Timeline, Dope sheet, Graph and NLE editor you can either display the keyframe number or the time in the timeline.

Define how the time gets displayed when you have chosen to display time.



### Zoom To Frame Type

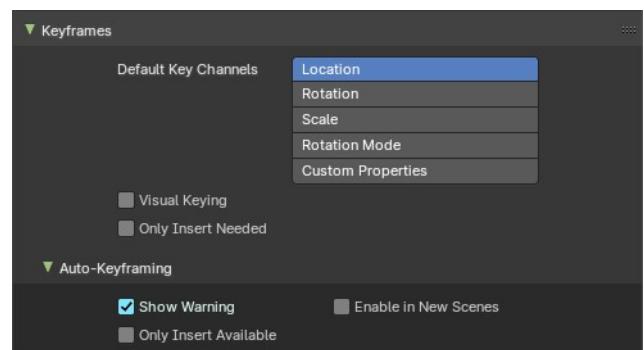
Timeline, Dope sheet, Graph and NLE. Define how zooming to frame focuses around current frame.



## Keyframes

### Default Key channels

Define which channels are recorded by default In case no keyingset is defined.



### Visual Keying

When an object is using constraints, the objects property value doesn't actually change. *Visual Keying* will add keyframes to the object property, with a value based on the visual transformation from the constraint.

### Only Insert Needed

This will only insert keyframes if the value of the property is different.

If there is a keyframe on the current frame, and it has no changes, it will skip recording over the keyframe.

If there is no keyframe, and it has no changes, skip recording the keyframe.

## Auto Keyframing

### Show Warning

Displays a warning at the top right of the *3D View*, when moving objects, if *Auto Keyframe* is on.

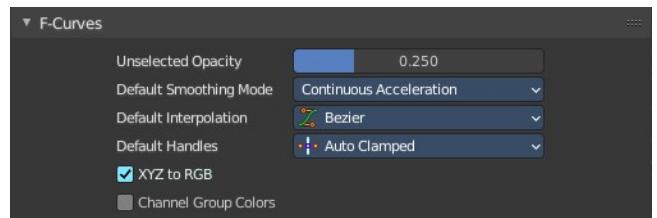
### Only Insert Available

This will only add keyframes to channel F-Curves that already exist.

### Enable in new scenes

Automatic keyframe insertion for objects and bones as Default setting for new scenes.

## F-Curves

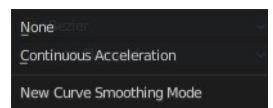


### Unselected Opacity

The amount that unselected F-curves stands out from the background in the Graph Editor.

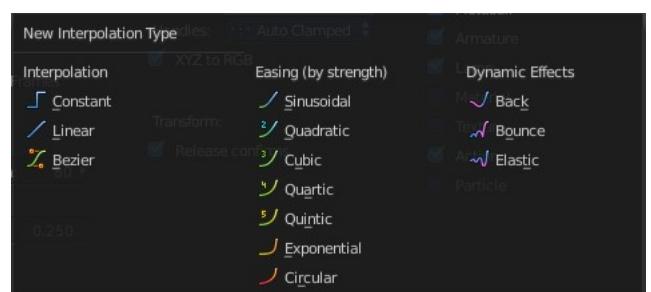
### Default Smoothing Mode

Auto handle smoothing mode for new added curves. None or Continuous acceleration.



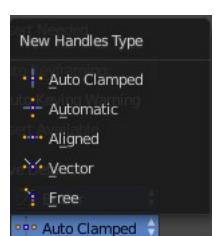
### Default Interpolation

This controls how the state between two keyframes is computed. Default interpolation for new keyframes is Bezier which provides smooth acceleration and deceleration whereas Linear or Constant is more abrupt.



### Default Handles

The default handle types for F-Curves.



### XYZ to RGB

Color for X, Y or Z animation curves (location, scale or rotation) are the same as the color for the X, Y and Z axis.

## Channel Group Colors

Use animation channel group colors. Uses the bone group colors.

## Only Show Selected F-Curve Keyframes

Just show the keyframes from the selected curves only.

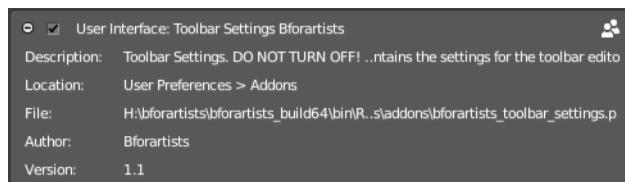
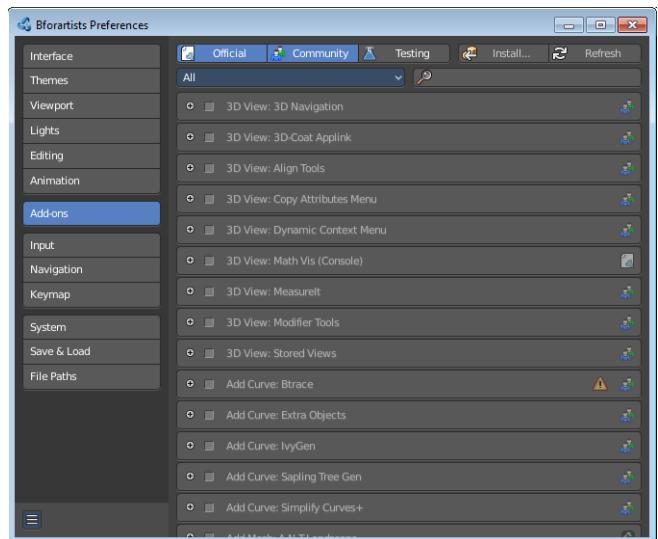
## F-Curve High Quality Drawing

Display the curves in highest quality.

# Addons

An add-on is external software written by other developers. Add-ons are a way to extend the core functionality of Bforartists. Bforartists already comes with lots of add-ons. Some already activated. Here you can manage them, and add even more add-ons if required.

Note that Bforartists works with Blender addons.



Note also that this list contains some add-ons that are required by Bforartists to work proper. You will see a warning in those addons. Don't turn them off. Or vital parts of Bforartists will not longer work. Like the toolbar.

## Header

### Official / Community / Testing

Filter the addons by supported level.



The addons comes in three flavors. The official addons are the addons from the Blender developers. Community are the addons from Community developers that doesn't officially belong to the Blender developer team. And Testing add-ons are add-ons that aren't really finished yet. They can do the job, but are experimental.

## Install Add-on

Install external add-ons. Note that addons that comes as a zip file should be loaded zipped. And not unzipped.

## Refresh

Scan the add-on directories for new modules. This is useful when you decide to install an add-on manually.

## Category

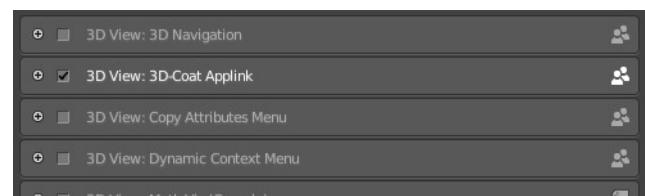
Refine the search down to single categories.

## Search

Search for keywords.

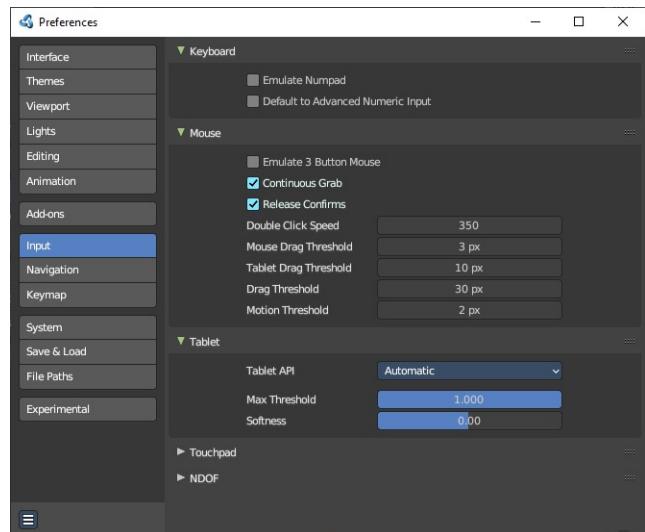
## List of Addons

This is the list of installed add-ons. Installed does not necessarily mean that they are enabled. To enable an add-on, tick the checkbox at the left. When you expand an add-on then you will find some further informations. Sometimes you will also find some more settings.



# Input

This tab contains some input related settings.



## Keyboard

### Emulate Numpad

Laptops usually doesn't have Numpad keys. Choose to use the number keys above the letters as Numpad keys.

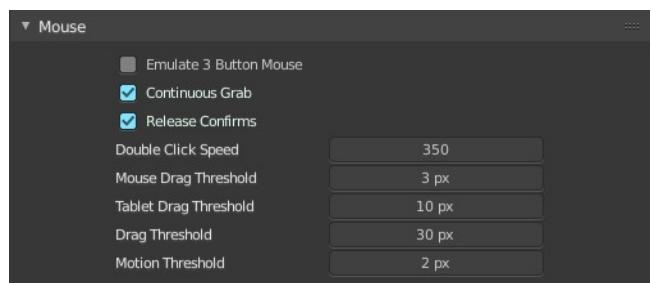
### Default to advanced numeric input

When entering numbers while transforming default to advanced mode for full math expression evaluation.

## Mouse

### Emulate 3 Button Mouse

In the Windows world 3 button mouses are common. But Apple for example has a single mouse button. Bforartists can emulate a 3 button mouse. The third mouse button will then be emulated by a key combination.

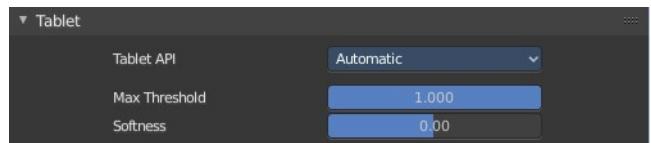


3-button Mouse	2-button Mouse	Apple Mouse
LMB	LMB	LMB (mouse button)
MMB	Alt - LMB	Alt - LMB (Option/Alt key + mouse button)
RMB	RMB	Cmd - LMB (Command/Apple key + mouse button)

Mouse/Keyboard combinations referenced in this manual can be expressed with the combinations shown in the table. For example, MMB drag becomes Alt - LMB drag. Shift - Alt - RMB becomes Shift - Alt - Cmd - LMB on a single-button mouse.

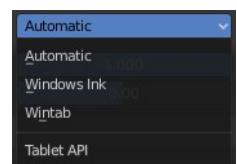
## Tablet

This panel contains some tablet related settings.



### Tablet API

Choose which API Bforartists should choose for the pressure sensitivity of your tablet.



### Max Threshold

The raw input pressure value which is interpreted as 100 % by Bforartists.

### Softness

Adjust the pressure softness of the low pressure response onset using a gamma curve.

## Touchpad

### Multi Touch Gestures

Use multi touch gestures for navigation with touchpad instead of scroll wheel emulation.



## NDOF

You can use a 3D mouse in Bforartists. Here you find some 3D mouse related settings.

### Pan Sensitivity

Adjust the pan sensitivity.

### Orbit Sensitivity

Adjust the orbit sensitivity

### Deadzone

The initial movement that is needed before the movement gets recognized.

### Navigation

Choose the navigation style between Free and Orbit.

### Rotation

Adjust in what style you rotate the 3D View. Turntable and Trackball navigation reacts a bit different. Turntable navigation tries to hold the horizon line while rotation. Turntable rotation rotates also the horizon line.

### Show Navigation Guide

Display the axis and center during rotation.

### Invert Zoom

Zoom using opposite direction.

### Lock Camera Pan/Zoom

Pan / Zoom the camera view instead of leaving the camera view when orbitting.

### Pan Swap Y and X Axes

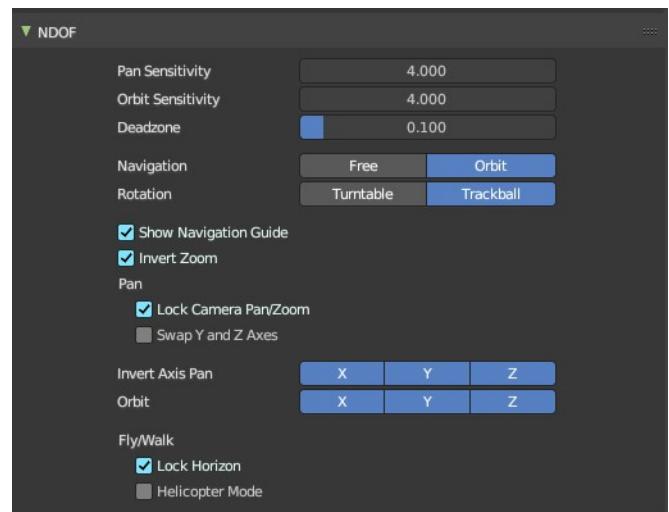
Pan uses up - down instead of forward - backward

### Invert Axis Pan

The invert axis for panning. Inactive axis are not inverted.

### Orbit

The axis to orbit around when panning.



## Fly / Walk

### Lock Horizon

Keep horizon level while flying with 3D mouse.

### Helicopter Mode

Using up/down directly controls the Z position in the 3D viewport.

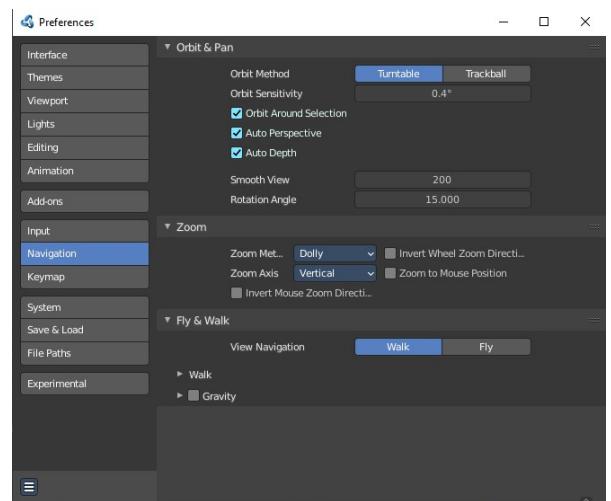
# Navigation

The navigation section contains the settings for navigating in the 3D view.

## Orbit & Pan

### Orbit Method

Adjust in what style you rotate the 3D View. Turntable and Trackball navigation reacts a bit different. Turntable navigation tries to hold the horizon line while rotation. Turntable rotation rotates also the horizon line.



### Orbit around selection

The selected object becomes the rotation center of the viewport. When there is no selection the point of the last selection will be used.

### Auto Perspective

With Auto perspective off when you switch to one of the side views, then the chosen orthographic or perspectivic view is kept. Means when you have the distorted perspectivic view, and switch to top view, then your mesh will be perspectivic distorted here too.

With Auto Perspective the view in the side views will be orthographic, and not perspectivic, no matter what View Persp/Ortho is chosen.

### Auto Depth

Use the depth under the mouse to improve view pan, rotate, zoom functionality.

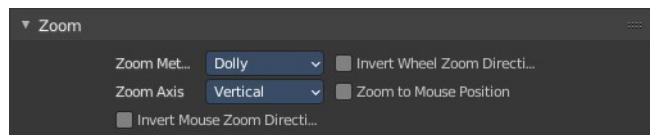
### Smooth View

The switch to change to another view is animated. Adjust the length of time the animation takes when changing the view with the Numpad (Top/Side/Front/Camera...). A value of zero will remove the animation, and immediately switch to the chosen view.

## Rotation Angle

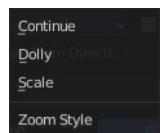
Rotation step size in degrees, when Numpad4, Numpad6, Numpad8, or Numpad2 are used to rotate the 3D View.

## Zoom



### Zoom Method

Adjust the zoom style.



#### Continue

The *Continue* zooming option allows you to control the speed (and not the value) of zooming by moving away from the initial click point. Moving up from the initial click-point or to the right will zoom out, moving down or to the left will zoom in. The further away you move, the faster the zoom movement will be.

#### Dolly

*Dolly* zooming works similarly to *Continue* zooming except that zoom speed is constant.

#### Scale

*Scale* zooming depends on where you first click in the view.

### Zoom Axis

With Vertical moving up zooms out and moving down zooms in. With Horizontal moving left zooms in and moving right zooms out.



### Invert Mouse Zoom Direction

Inverts the Zoom direction for Dolly and Continue zooming.

### Invert Wheel Zoom Direction

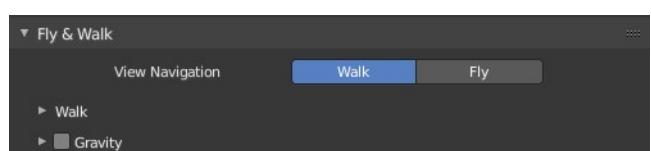
Inverts the direction of the mouse wheel zoom.

### Zoom to Mouse Position

When enabled, the mouse pointer position becomes the focus point of zooming instead of the 2D window center.

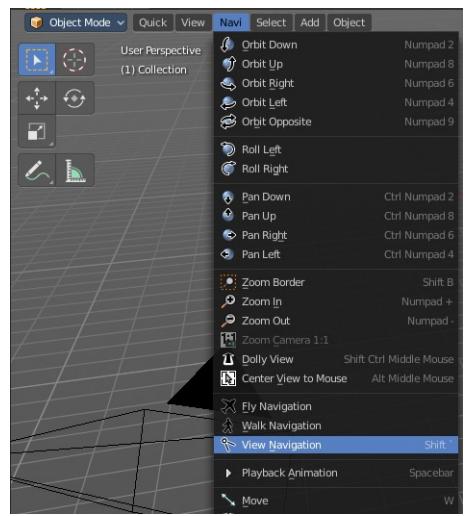
## Fly & Walk

Fly and walk are special navigation modes. They can be found in the Navi menu. The Fly & walk section also contains some settings from the View navigation style, since this style uses elements from walk and fly navigation too



## View Navigation

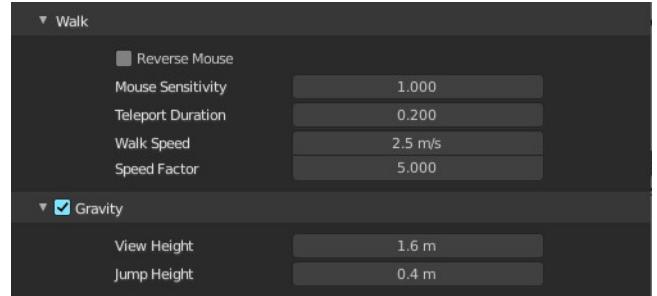
Adjust how the View navigation in the 3D view behaves. You can choose between walk and fly.



## Walk

### Reverse Mouse

Reverse the mouse movement when you move upwards or downwards



### Mouse Sensitivity

Adjust how strong the viewport movement reacts to the mouse movement

### Teleport Duration

Adjust the teleport duration when teleporting in navigation mode.

### Walk Speed

Adjust the walk speed

### Speed Factor

Adjust the run speed.

### Gravity

Choose if the virtual character, your point of view, uses gravity.

### View Height

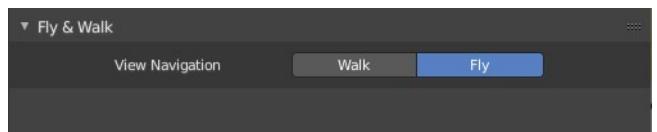
Adjust the height of the point of view for your virtual character. This setting requires to have Gravity on.

### Jump Height

Adjust the maximal jump height for your virtual character. This setting requires to have Gravity on.

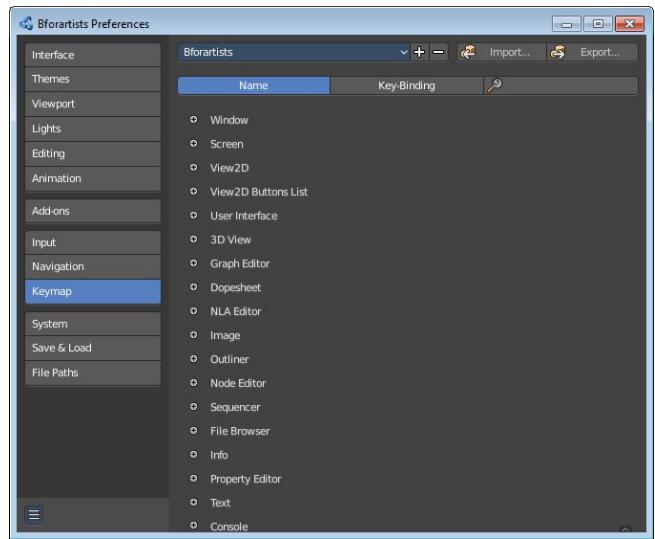
## Fly

Fly has no further settings.

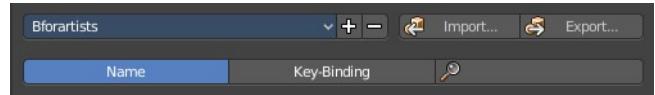


# Keymap

The key map allows you to customize how Bforartists reacts to mouse and keyboard, and change key map entries. All Input behavior is defined in the key map.

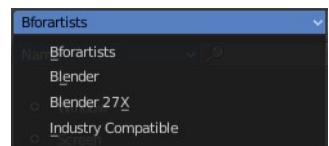


## Header



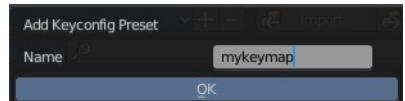
## Key Configs

A drop down menu to choose existing key maps. The + button at the right adds a new key map. The current configuration will then be saved as a new key map.



## Import

Import an external key map. This opens up a file selector to choose the python file.



## Export

Export a key configuration python file from Bforartists.

## Filter Type

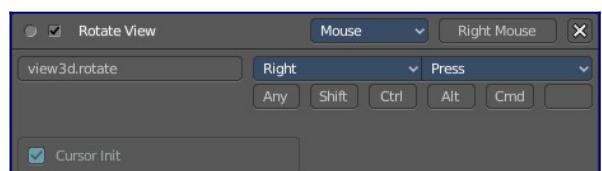
Define if you want to search for a tool name or for a hotkey. By tool name, or by the hotkey name

## Search Field

Enter a search string.

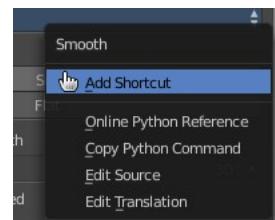
## Key map Editor

The Key map editor is the list where the single inputs are defined. Every input can have several specific operator settings in the lower area. The upper area defines the general things like the key combos. The lower area those operator



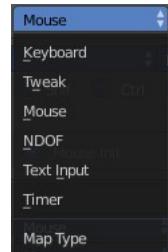
specific settings.

Normally you don't edit those key entries manually. Most of the usual tools have an entry in the right click menu to create or to change the hotkey. But sometimes you have to do this task manually.



## Map Type

Here you define what input will control the function.



## Type of Event

Here you define your main hotkey. In our case the right mouse.

Right Mouse

## Operator

The Python operator name for the tool.

view3d.rotate

## Type of Event

The main hotkey again. For special events like mouse events you have a drop down box here.

Right

## Value

What key action is required. On click, on double click, etc. ...



## Secondary hotkeys

Many hotkeys uses a key combination, for example Shift D for select.

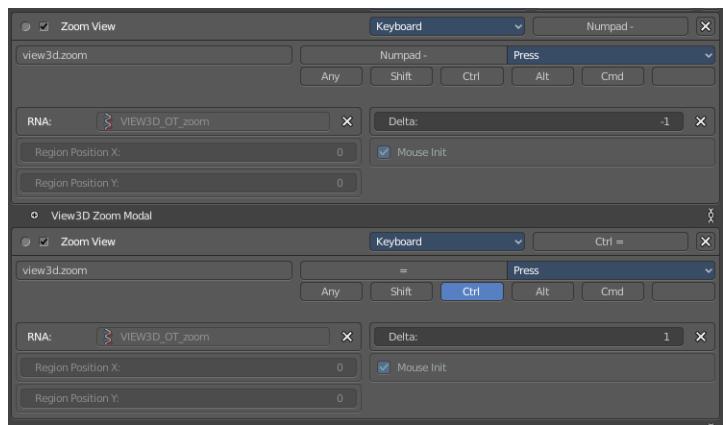
Define those secondary hotkeys.



## Specific settings

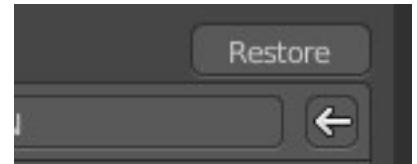
Every operator can have several settings. And some tools even just defines itself by those different settings. Here you can see two different zoom view operators. They just differ in the Delta value.

What is equal in the key map in all cases is the RNA entry. That's the name of the operator again. But this time not the Python code operator name. But the C code operator name.



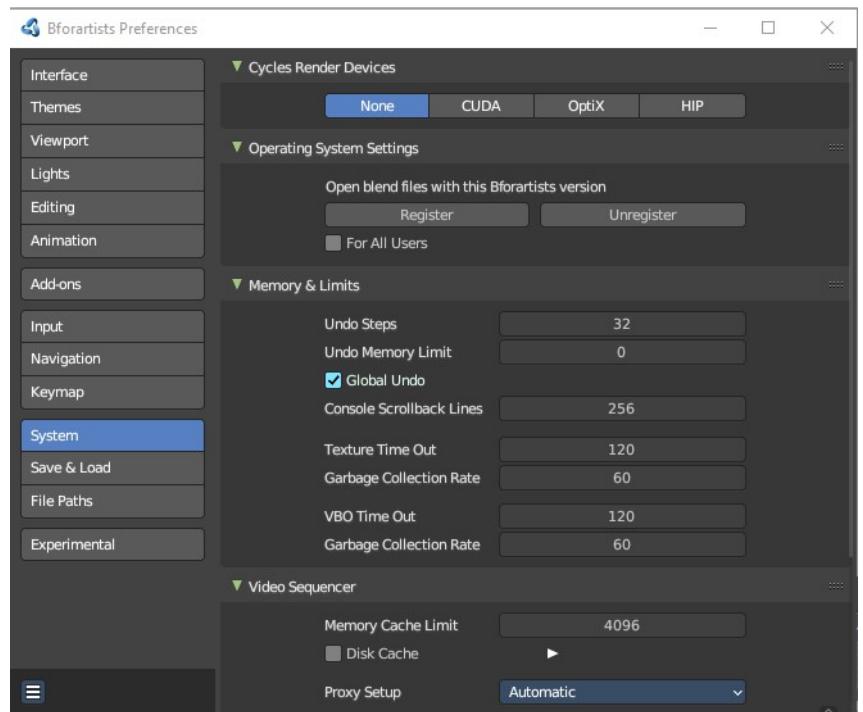
## Restore

When you modify a key map item, then you will see a Restore button appear at the right side. This indicates that this key map item got modified. A click at the Restore button will restore the original hotkey.



# System

The system tab contains system relevant settings. Such as Cuda for Cycles renderer or OpenCL or Memory related settings.



## Cycles Render Devices

The Options here will set the compute device used by the Cycles render engine.

### **None**

When set to *None* or the only option is *None*: your CPU will be used as a computing device for Cycles Render

Engine.

## CUDA

If the system has a compatible Nvidia CUDA enabled graphics card you will be able to use it to render with the Cycles render engine.

## OptiX

Optix is a raytracing framework from Nvidia that runs on the GPU.

## HIP

If the system has a compatible HIP device, it will show up has an option for rendering cycles.

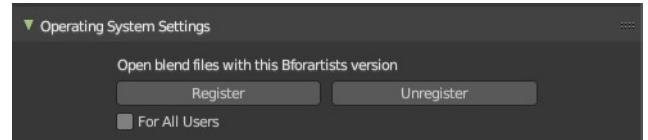
## oneAPI

If the system has a compatible oneAPI device, it will show up has an option for rendering cycles.

# Operating System Settings

Windows only.

Register or unregister to connect the blend file with this Bforartists version.



## For all Users

Register the file association for all users, or just for the current user.

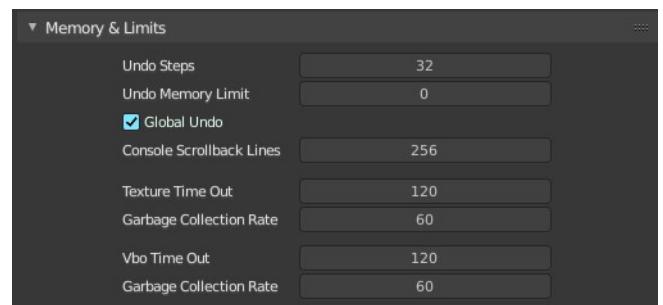
## Make default

Associates the .blend file with this installation of Bforartists. This means that double clicking at a .blend file will now open this file with the currently open Bforartists installation. This is useful when you work with different versions of Bforartists, and want to open the files with an older or newer version.

# Memory and Limits

## Undo Steps

Number of Undo steps available.



## Undo Memory Limit

Maximum memory usage in Mb (0 is unlimited).

## Global Undo

Bforartists Undo system is split in several subpart. Global undo stores the undo step outside of Edit mode. For example for duplicating Objects, changing panel settings or switching between modes.

## Console Scrollback Lines

Maximum number of lines to store for the console buffer.

## Texture Time Out

Time since last access of a GL texture in seconds, after which it is freed. Set to 0 to keep textures allocated.  
Minimum: 0, Maximum: 3600.

## Garbage Collection Rate

Number of seconds between each run of the GL texture garbage collector. Minimum: 0, Maximum: 3600.

## VBO Time Out

Time since last access of a GL Vertex buffer object, in short VBO, in seconds after which it is freed. Set to 0 to keep VBO allocated.

## Garbage Collection Rate

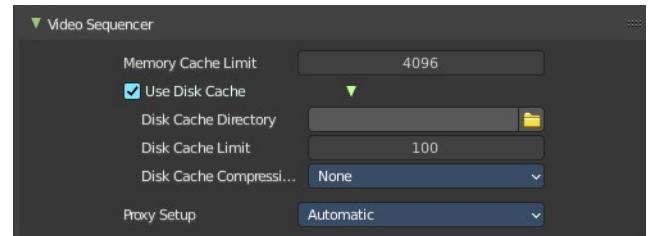
Number of seconds between each run of the GL vertex buffer garbage collector. Minimum: 0, Maximum: 3600.

---

## Video Sequencer

### Memory Cache Limit

Upper limit of the sequence's memory cache (megabytes).  
For optimum clip editor and sequencer performance, high values are recommended.



### Use Disk Cache

Store cached images to disk.

### Directory

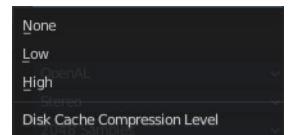
The disk cache directory.

### Cache Limit

The disk cache limit in gigabytes.

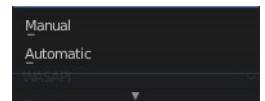
### Compression

What compression method to use. Note that compression saves space, but costs performance.



### Proxy Setup

Proxies are preview objects, reduced in size to make a smooth working possible. Images for example.



## Automatic

Automatically create proxies for each image material.

## Manual

You have to create the proxies by hand.

---

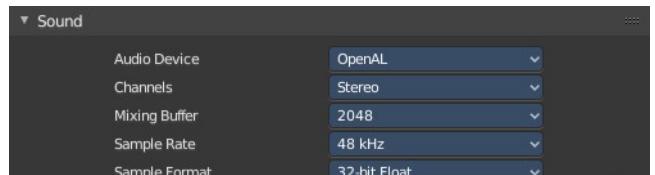
## Sound

### Audio Device

Set the audio device.

#### ***OpenAL***

Provides buffered sound rendering with 3D/spatial support.



#### ***OpenAL - OpenAL Soft***

Provides buffered sound rendering with 3D/spatial support.

#### ***SDL***

Uses Simple Direct Media Layer API from [libsdl.org](http://libsdl.org) to render sounds directly to the sound device output.

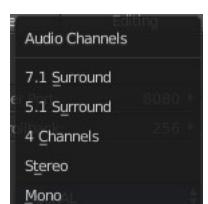
#### ***Null***

No Audio support. No audio output, but audio strips can be loaded normally.

---

## Channels

Set the audio channel count. Available options are: Mono, Stereo, 4 Channels , 5.1 Surround , 7.1 Surround



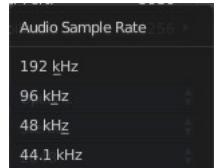
## Mixing Buffer

Set the number of samples used by the audio mixing buffer. Available options are: 512 , 1024 , 2048, 4096 , 8192, 16384, and 32768



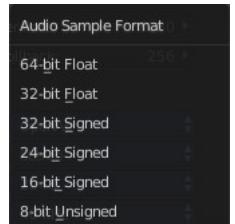
## Sample Rate

Set the audio sample rate. Available options are: *44.1 KHz, 48 Khs, 96 KHz and 192Khz*



## Sample Format

Set the audio sample format. Available options are: *32 bit float, 8 bit Unsigned, 16 Bits Signed, 24 Bits Signed, 32 Bits Signed, 32 Bits Float, and 64 Bits Float.*



# Save & Load

## Blend Files

Blend file related settings. What happens at load, what happens at save ...

### Relative Paths

By default, external files use a relative path.

### Compress File

Compress blend-file when saving.

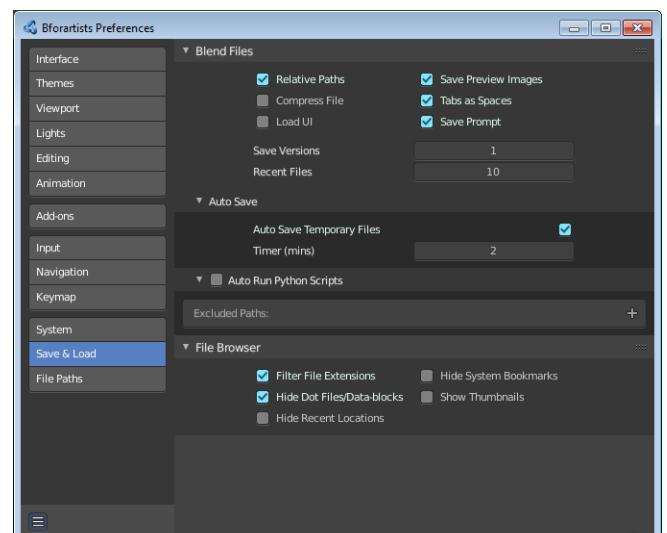
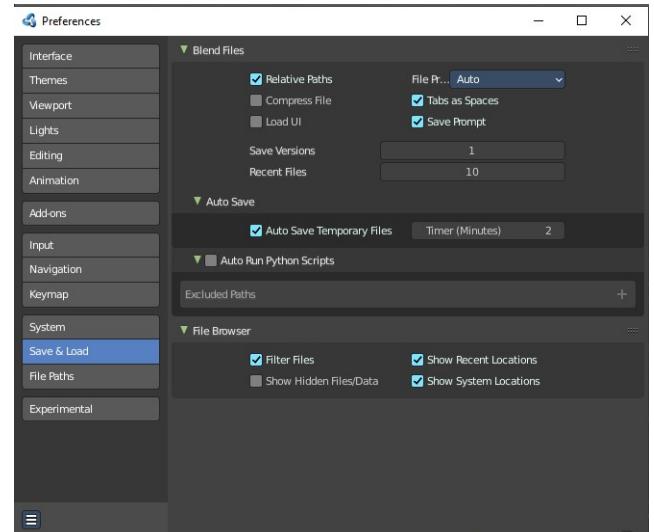
The option to Compress files will compact your files whenever Blender is saving them. Dense meshes, large packed textures or lots of elements in your scene will result in a large blend being created.

This option may slow down Blender when you quit, or under normal operation when Blender is saving your backup files. Using this option traces processor time for file-size.

### Load UI

In Bforartists you can load the scene in the screen layout in which you have saved it. Default is off.

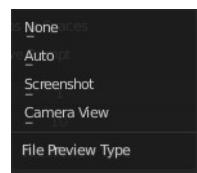
This can also be changed individually when loading a file from the *Open blend-file* panel of the File Browser.



## File Preview

### **None**

When this option is off, previews of images and materials in the File Browser are created on demand.



### **Auto**

Automatically create previews of images and materials in the File Browser. The best preview type is chosen automatically.

### **Screenshot**

Capture the entire window to create previews of images and materials in the File Browser.

### **Camera Preview**

Use a workbench render to create the previews of images and materials in the File Browser.

## Tabs as Spaces

For text files, automatically convert tabs into spaces when loading a blend file that contains a text file. Correct indentation is relevant for python scripts.

## Save Prompt

Ask for confirmation when quitting with unsaved changes.

## Save Versions

Number of versions created for the same file (for backup).

This option tells Bforartists to keep the indicated number of saved versions of your file in your current working directory when you manually save a file. These files will have the extension: `.blend1`, `.blend2`, etc., with the number increasing to the number of versions you specify. Older files will be named with a higher number. e.g. With the default setting of 2, you will have three versions of your file: `*.blend` (your last save), `*.blend1` (your second last save) and `*.blend2` (your third last save).

## Recent Files

The number of recent files to display in the Recent panel.

---

## Auto Save

### **Auto Save Temporary File**

Enable Auto Save. Auto save creates a temporary file.

Checking this box tells Blender to automatically save a backup copy of your work-in-progress to the Temp directory (refer to the File tab in the Preferences for its location).

The Auto Saved files are named using a random number and have a blend extension.

## Timer

Adjust the number of minutes between each Auto Save. The minimum is 1, and the Maximum is 60 (Save at every one hour).

---

## Auto Run Python Scripts

Run the python scripts at loading a blend file that includes these scripts.

## Excluded paths

Define file paths where loaded blend files should not run the included scripts even when auto run python scripts is ticked.

---

## File Browser

File browser related settings.



## Filter Files

By activating this, the file dialog in the File Browser will only show appropriate files in the Load dialog. Blend files for example.

The selection of file types can also be changed in the header of the file dialog.



## Show Hidden File/Data

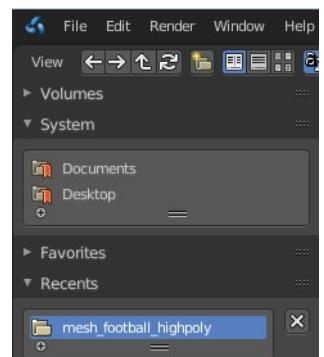
On non Windows systems like Linux and Mac OS X files are hidden by a dot in front of the file name. Here you can make them visible in the file browser if you want. Note that this feature does not work with Windows.

## Show Recent Locations

Hides the *Recent* panel of the File Browser which displays recently accessed folders.

## Show System Bookmarks

Hides the System Bookmarks panel of the File Browser which displays the system bookmarks.



# File Paths

Contains everything file path related.

## Data

### Fonts

Default location when searching for font files.

### Textures

Default location when searching for image textures.

### Sounds

Default location when searching for sound files.

### Temporary Files

The location where temporary files are stored.

## Script Directories

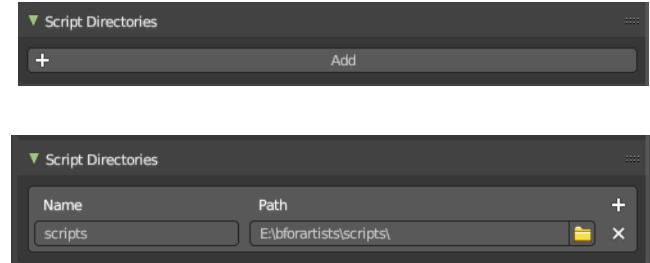
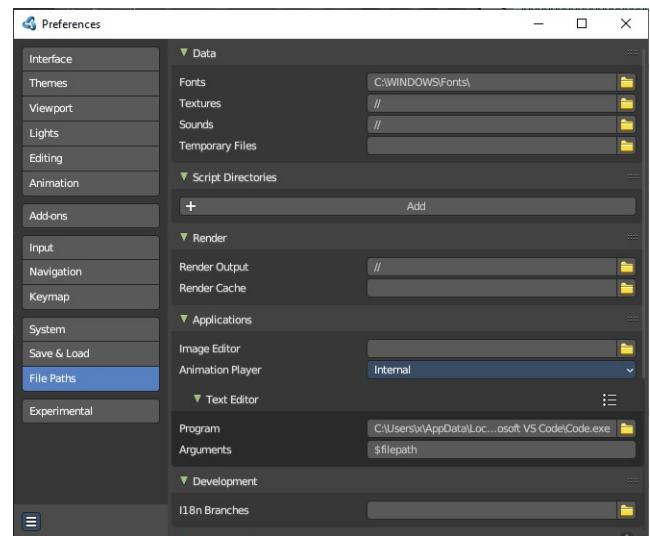
An additional location to search for Python scripts.

By default Bforartists looks in several directories (OS dependent) for scripts. Here you can add another directory to check for scripts. This can be used to store certain scripts/templates/presets independently of the currently used Blender Version.

Inside the specified folder specific folders have to be created to tell Bforartists what to look for where. This folder structure has to mirror the structure of the scripts folder found in the installation directory of :

- scripts
- add-ons
- modules
- presets
- camera
- cloth
- interface\_theme
- operator
- render
- ...
- startup
- templates

Not all of the folders have to be present.



Python scripts (including driver expressions) are not executed by default for security reasons.

## Render

### Render Output

Where rendered images/videos are saved.



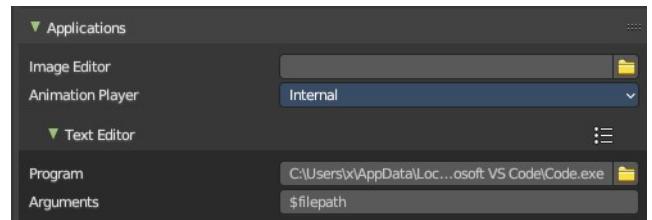
### Render Cache

The location where cached render images are stored.

## Applications

### Image Editor

The path to an external image editing software to use for image editing. Photoshop, Gimp, etc.



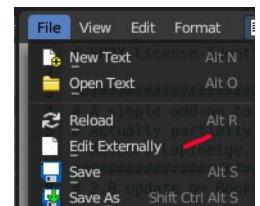
### Animation Player

By default Bforartists uses the internal player to play back animations. Choose an external program to use for playback of rendered animations. There are also some presets available.

### Text Editor

Here you can define an external text editor. Which allows you to edit text files externally.

Which then can be done from the File menu in the text editor.

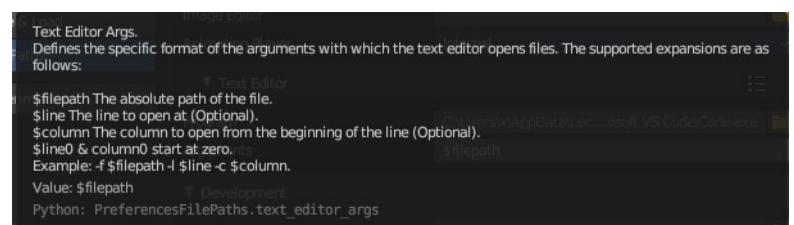


### Program

Enter the path to the external text editor.

### Arguments

Enter at least a filepath argument so that the code can be opened by the external editor. More arguments can be found in the tooltip.



## Development

### I18n Branches

The path to the /branches directory in your local repository translation copy. This allows translating the UI. See interface tab, the translation panel.



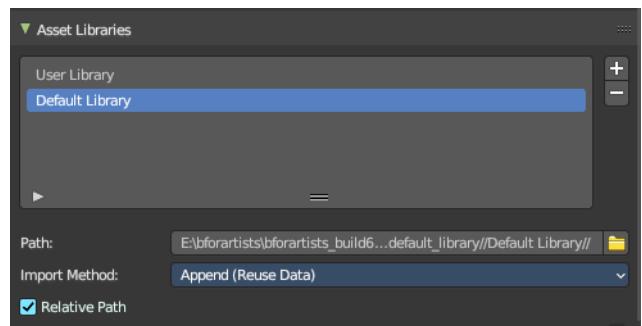
## Asset Libraries

The default paths for custom asset libraries. The functionality should be self explaining.

To change the path simply type in a path, or use the path picker at the end.

To add a new path to an asset library click at the + button below the list.

To remove a path click at the X button at the end.



## Asset List

The list of available asset libraries.

### Add

Add a new asset library to the asset list.

### Remove

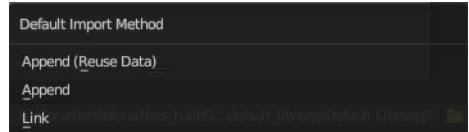
Remove the selected library from the asset list.

### Path

The path to the current selected asset library.

### Import Method

How to import the assets from the asset library into the scene.



### Append (Reuse Data)

Imports the assets as a copied data. The data is fully imported, and not linked to the asset library. This method reuses existing materials or meshes.

### Append

Imports the assets as a copied data. The data is fully imported, and not linked to the asset library. This method also imports every material and mesh from scratch, and can create duplicated redundant data.

### Link

Links the assets to the assets in the asset library. The data is linked to the asset library. When you remove the asset library then the linked data is also removed.

### Relative Path

Use relative paths when linking from this library.

# Experimental

Here you may find some experimental settings from the Blender development. We will not cover them here. They change very quick. Use at own risk!

