



24 Editors - Toolbar

Table of content

Detailed Table of Content.....	1
Introduction.....	8
Limits.....	9
Menus.....	9
Toolbar Type menu.....	9
Toolbars Menus.....	9
Bforartists Settings add-on.....	10
Create new toolbar.....	10
Save Toolbar state.....	11
Toolbar Types.....	12
Toolbar Types.....	12
Options.....	12
Toolbars File.....	13
Available Toolbars.....	13
Toolbars Mesh Edit.....	18
Available Toolbars.....	18
Toolbars Primitives.....	22
Available Toolbars.....	22
Toolbars Image.....	29
Available Toolbars.....	29
Toolbars Tools.....	31
Available Toolbars.....	31
Toolbars Animation.....	34
Available Toolbars.....	34
Toolbars Edit.....	37
Available Toolbars.....	37
Toolbars Misc.....	40
Available Toolbars.....	41
Viewport.....	41

Detailed Table of Content

23 Editors - Toolbar

Detailed Table of Content.....	1
Introduction.....	8
Limits.....	9
Menus.....	9
Toolbar Type menu.....	9
Toolbars Menus.....	9
Bforartists Settings add-on.....	10
Create new toolbar.....	10
Save Toolbar state.....	11
Toolbar Types.....	12
Toolbar Types.....	12

Options.....	12
Show Quick Toggle.....	12
Toolbars File.....	13
Available Toolbars.....	13
Load / Save.....	13
File New.....	13
New from Template.....	13
Open.....	13
Open Recent.....	13
Save Blend File.....	14
Save As Blend File.....	14
Save Copy.....	14
Recover.....	14
Revert.....	14
Recover.....	14
Recover Last Session.....	14
Recover Autosave.....	14
Link Append.....	14
Link from Library.....	14
Append from Library.....	14
Import Menu.....	14
Export Menu.....	15
Import Common.....	15
Import FBX.....	15
Import Obj.....	15
Import ABC.....	15
Import Common 2.....	15
Import SVG into Grease Pencil.....	15
Import DAE.....	15
Import BVH.....	15
Import glTF2.....	16
Import Uncommon.....	16
Import STL.....	16
Import PLY.....	16
Import SVG.....	16
Export Common.....	16
Export FBX.....	16
Export Obj.....	16
Export ABC.....	16
Export Common 2.....	16
Export Grease Pencil to SVG.....	16
Export Grease Pencil to PDF.....	16
Export DAE.....	16
Export BVH.....	17
Export USD.....	17
Export glTF2.....	17
Export Uncommon.....	17
Export 3DS.....	17
Export PLY.....	17
Render.....	17
Render Image.....	17
Render Animation.....	17
Render Open GL.....	17

Open GL Render Image.....	17
Open GL Render Animation.....	17
Render Misc.....	17
Mixdown Audio.....	18
Show/ Hide Render view.....	18
Play rendered animation.....	18
Toolbars Mesh Edit.....	18
Available Toolbars.....	18
Vertices Split connect.....	18
Split.....	18
Vertex Connect Path.....	18
Vertex Connect.....	18
Vertices Misc.....	19
Convex Hull.....	19
Blend from Shape.....	19
Shape Propagate.....	19
Edges Subdiv.....	19
Subdivide.....	19
Subdivide Edge Ring.....	19
Un-Subdivide.....	19
Edges Sharp.....	19
Mark Sharp.....	19
Unmark Sharp.....	19
Edges Freestyle.....	19
Mark Freestyle Edge.....	19
Unmark Freestyle Edge.....	19
Edges Rotate.....	20
Rotate.....	20
Edges Misc.....	20
Edge Split.....	20
Bridge Edge loops.....	20
Faces general.....	20
Fill.....	20
Grid Fill.....	20
Beautify Faces.....	20
Solidify.....	20
Intersect.....	20
Boolean Intersect.....	20
Wire Frame.....	20
Faces Freestyle.....	21
Mark Freestyle Face.....	21
Unmark Freestyle Face.....	21
Faces Tris.....	21
Poke Faces.....	21
Triangulate Faces.....	21
Tris to Quads.....	21
Split by Edges.....	21
Faces Rotate Misc.....	21
Rotate UV's.....	21
Reverse UV's.....	21
Rotate Colors.....	21
Reverse Colors.....	21
Cleanup.....	21

Delete Loose.....	21
Decimate Geometry.....	22
Degenerate Dissolve.....	22
Make Planar Faces.....	22
Split Non Planar Faces.....	22
Split Concave Faces.....	22
Fill Holes.....	22
Toolbars Primitives.....	22
Available Toolbars.....	22
Mesh.....	22
Add Plane.....	23
Add Cube.....	23
Add Circle.....	23
Add UV Sphere.....	23
Add Cylinder.....	23
Add Cone.....	23
Add Torus.....	23
Add Grid.....	23
Curve.....	23
Add Bezier.....	23
Add Circle.....	23
Add Nurbs Curve.....	23
Add Nurbs Circle.....	23
Add Nurbs Path.....	23
Surface.....	24
Add Surface Curve.....	24
Add Surface Circle.....	24
Add Surface Patch.....	24
Add Surface Cylinder.....	24
Add Surface Sphere.....	24
Add Surface Torus.....	24
Metaball.....	24
Add Metaball of type Ball.....	24
Add Metaball of type Capsule.....	24
Add Metaball of type Plane.....	24
Add Metaball of type Ellipsoid.....	24
Add Metaball of type Cube.....	24
Point Cloud.....	25
Add Point Cloud.....	25
Volume.....	25
Import OpenVDB Volume.....	25
Add Volume.....	25
Grease Pencil.....	25
Blank.....	25
Stroke.....	25
Monkey.....	25
Scene Line Art.....	25
Collection Line Art.....	25
Lamp.....	25
Add Lamp of type Point.....	26
Add Lamp of type Sun.....	26
Add Lamp of type Spot.....	26
Add Lamp of type Area.....	26

Other.....	26
Add Text.....	26
Add Armature.....	26
Add Lattice.....	26
Add Camera.....	26
Add Speaker.....	26
Empties.....	26
Add Empty of type Plain Axes.....	26
Add Empty of type Sphere.....	26
Add Empty of type Circle.....	27
Add Empty of type Cone.....	27
Add Empty of type Cube.....	27
Add Empty of type Single Arrow.....	27
Add Empty of type Arrows.....	27
Add Empty of type Image.....	27
Image.....	27
Reference Image.....	27
Background Image.....	27
Images as Planes.....	27
Light Probe.....	27
Sphere.....	27
Plane.....	27
Volume.....	27
Force Field.....	28
Add Physics Effector of Type Boid.....	28
Add Physics Effector of Type Charge.....	28
Add Physics Effector of Type Curve Guide.....	28
Add Physics Effector of Type Drag.....	28
Add Physics Effector of Type Force.....	28
Add Physics Effector of Type Harmonic.....	28
Add Physics Effector of Type Lenard-Jones.....	28
Add Physics Effector of Type Magnetic.....	28
Add Physics Effector of Type Smoke Flow.....	28
Add Physics Effector of Type Texture.....	28
Add Physics Effector of Type Turbulence.....	28
Add Physics Effector of Type Vortex.....	28
Add Physics Effector of Type Wind.....	28
Collection.....	29
Add Collection Instance.....	29
Toolbars Image.....	29
Available Toolbars.....	29
UV Mirror.....	29
UV Rotate.....	29
UV Align.....	29
Align Straighten.....	29
Align Straighten X.....	29
Align Straighten Y.....	29
Align Auto.....	29
Align X.....	30
Align Y.....	30
Align Rotation.....	30
UV Unwrap.....	30
Mark Seam.....	30

Clear Seam.....	30
Seams from Islands.....	30
Unwrap Angle Based.....	30
Unwrap Conformal.....	30
Unwrap Minimize Stretch.....	30
Cube Projection.....	30
Cylinder Projection.....	30
Sphere Projection.....	30
UV Modify UV.....	31
Pin.....	31
Unpin.....	31
Weld.....	31
Remove Doubles UV.....	31
Average Island Scale.....	31
Pack Island.....	31
Copy mirrored UV Coordinates.....	31
Toolbars Tools.....	31
Available Toolbars.....	31
Parent.....	32
Make Parent.....	32
Clear Parent.....	32
Object to Data.....	32
Make Single User.....	32
Link Data.....	32
Link to SCN.....	32
Link to SCN.....	32
Linked Objects.....	32
Make Local.....	32
Make Library Override.....	32
Join.....	33
Join.....	33
Origin.....	33
Set Geometry to Origin.....	33
Set Origin to Geometry.....	33
Set Origin to 3D cursor.....	33
Set Origin to Center of Mass.....	33
Set Origin to Center of Volume.....	33
Shading.....	33
Shade Smooth.....	33
Shade Smooth by Angle.....	33
Shade Flat.....	33
Data Transfer.....	34
Transfer Mesh Data.....	34
Transfer Mesh Data Layout.....	34
Join UV's.....	34
Relations.....	34
Make Vertex Parent.....	34
Toolbars Animation.....	34
Available Toolbars.....	34
Keyframes.....	34
Insert Keyframe Menu.....	35
Delete Keyframe.....	35
Bake Action.....	35

Remove Animation.....	35
Calculate Object Paths.....	35
Clear Object Paths.....	35
Play.....	35
Jump to Endpoint.....	35
Jump to Keyframe.....	35
Play Animation.....	35
Play Animation.....	35
Jump to Keyframe.....	35
Jump to Endpoint.....	36
Current Frame.....	36
Range.....	36
Use Preview Range.....	36
Lock Frame Selection to Range.....	36
Frame Start.....	36
Frame End.....	36
Keying set.....	36
Insert Keyframe.....	36
Delete Keying set Keyframe.....	36
Use Keyframe Insert Auto.....	36
Keying set Drop down box.....	36
Sync.....	37
Keyframe Type.....	37
Toolbars Edit.....	37
Available Toolbars.....	37
Edit.....	37
Dissolve Vertices.....	37
Dissolve Edges.....	37
Dissolve Faces.....	37
Remove Doubles.....	38
Limited Dissolve.....	38
Dissolve Selection.....	38
Edge Collapse.....	38
Merge.....	38
Separate.....	38
Weight in Edit.....	38
Normalize all.....	38
Normalize.....	38
Mirror.....	38
Invert.....	38
Clean.....	38
Quantize.....	39
Levels.....	39
Smooth.....	39
Limit Total.....	39
Object Apply.....	39
Apply Location.....	39
Apply Rotation.....	39
Apply Scale.....	39
Apply All.....	39
Apply Rotation & Scale.....	39
Apply Visual Transform.....	39
Apply Make Duplicates real.....	39

Object Apply Deltas.....	39
Location.....	40
Rotation.....	40
Scale.....	40
All.....	40
Transforms to Delta Anims.....	40
Object Clear.....	40
Location.....	40
Rotation.....	40
Scale.....	40
Origin.....	40
Toolbars Misc.....	40
Available Toolbars.....	41
Viewport.....	41
Undo / Redo.....	41
Undo.....	41
Redo.....	41
Undo History.....	41
Undo History.....	41
Repeat.....	41
Repeat.....	41
Repeat History.....	42
Scene.....	42
View Layer.....	42
Adjust last Operation.....	42
Operatorsearch.....	42
Search Menu.....	42
Search Operator.....	43
Info.....	43

Introduction



The Toolbar editor is what you normally have to avoid in UI design. It's a bunch of double menu entries. It is made by lots of tools that already exists elsewhere.

But the value of this double menu here is that it is configurable. This customizable toolbar makes it possible to have the most needed tools at top UI level. This can save a ton of clicks, tabbing, scrolling, and digging in sub menus. And you can display what you need for your personal workflow. And hide away the rest.

The toolbar editor uses pure Icon buttons.

Parts of the toolbars are just visible when you are in the right mode. The full Primitives toolbar for example in just visible in Object mode. Parts of it are visible in Edit mode, dependent of what type of object you modify. And in the other modes the toolbars are hidden.

Parts of the toolbars are just visible when the right object type in the scene exists / is selected.

As told, the toolbars are double menu entries. This means the description of the tools in this chapter will be as short as possible. Closer descriptions, like how to use the tools, can be found in the other chapters where the tools comes from. The Tool Shelf in the 3D View for example.

Limits

- The toolbar does not contain all possible tools. More the opposite, the selection is very limited. Lots of tools depends to be performed in the editor type where you want to do the change. They just work there. And not in other editors. This affects for example most tools in edit mode. And the toolbar is another editor. This limits the available tools in the toolbar dramatically.
- The toolbars have a fixed order. The content is not sortable. The sorting is defined by the order of the toolbar type. And inside the toolbar type by the order in the toolbars menu. You would need to have to edit the python file to change this order.
- Just the toolbar types are independent. The check boxes to display the toolbars themselves are global. Means when you set one toolbar type to Primitives, and activate all the primitives types there, then other toolbars with this toolbar type will have the same primitives types displayed.

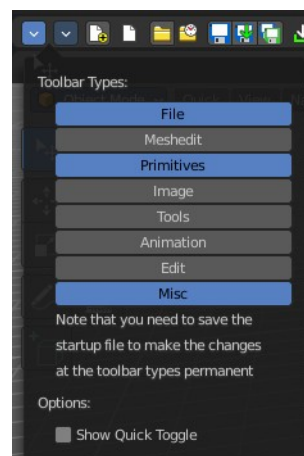
Menus

Toolbar Type menu

The first entry of a toolbar is the Toolbar Type menu.

Choose what kind of Toolbar Type you want to show. You can show multiple types of toolbars at once.

The toolbar types are independent from each other. You can set up every toolbar to display different content.



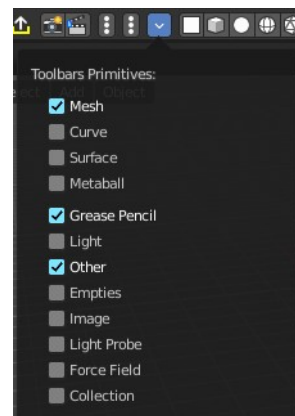
Toolbars Menus

Every toolbar type has several toolbars to display.

In the toolbar menu at the front of a toolbar type you can choose what toolbars you want to display.

The toolbars are not independent. This setup is global. When you for example tick the Toolbar File in this toolbar, then it will be displayed in all other toolbars too. Including in other layouts.

These check boxes are also available in the Toolbar Settings Bforartists add-on

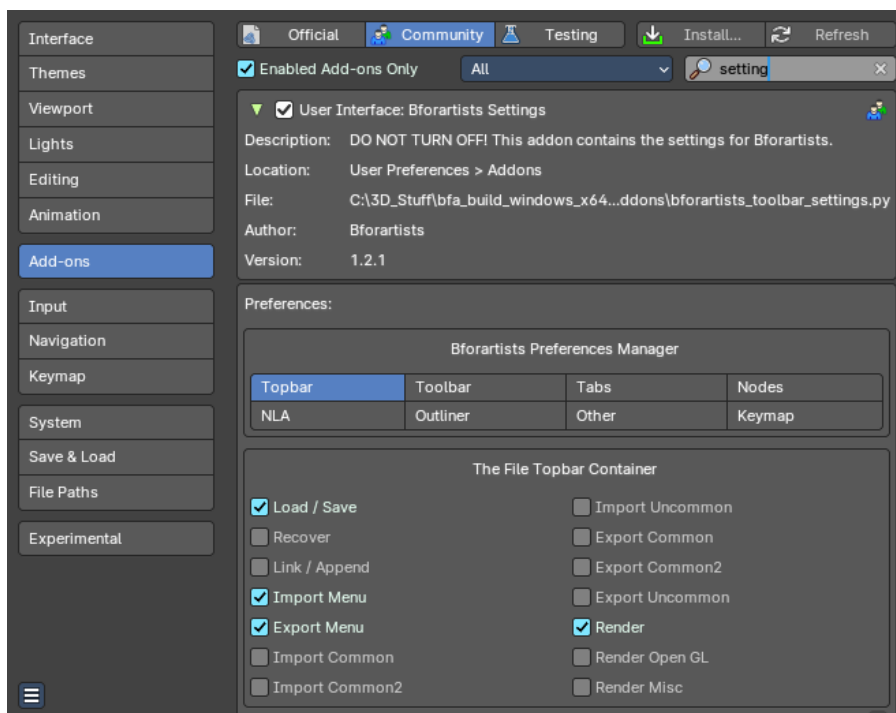


Bforartists Settings add-on

The settings for the toolbar needs to be stored somewhere. This is done in an add-on called Bforartists Settings.

This add-on contains the same check boxes than the single toolbars menus in the toolbar. But all of them at once.

Changing a setting here will automatically save the user preferences.



Warning!

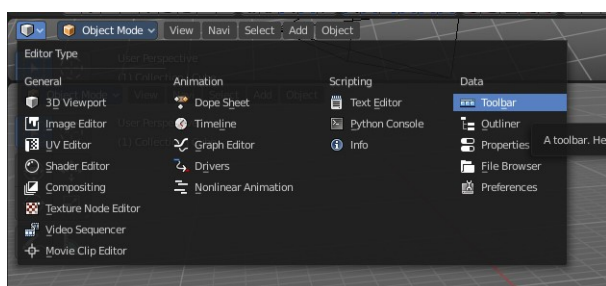
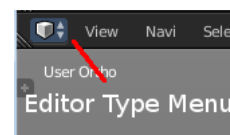
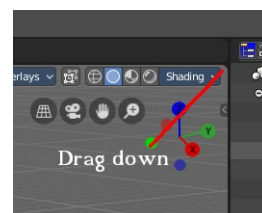
Do not deactivate this add-on. The toolbar will not work then. It depends of the settings in the add-on!

Create new toolbar

You might want to create your own toolbar for a new layout. Let's explain the needed steps.

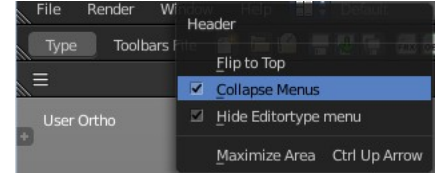
First create a new editor type. This can be done by dragging the triangle area of an existing editor. And will create a new editor.

Look at the right of this new created editor type. You will now see a small button. This is the Editor type menu. Open it by clicking at it. And choose Toolbar.



Now set up your new created Toolbar editor. Choose the toolbar types you want to display here. Then choose the toolbars to display.

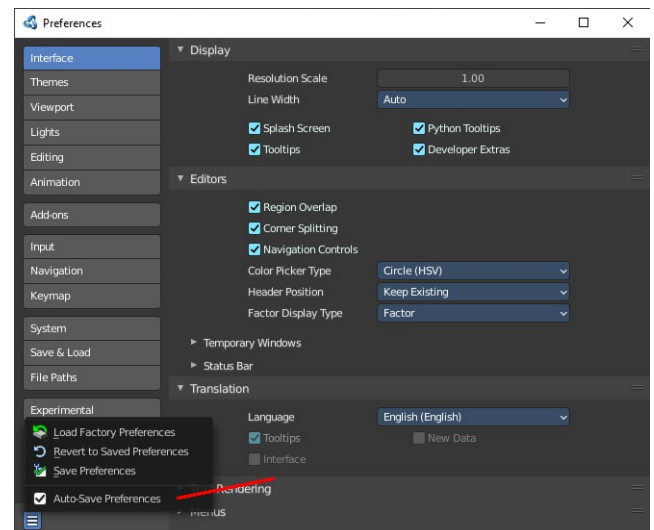
The last step is to hide the Editor Type menu and to collapse the menus. Right click at the toolbar, and tick Collapse Menus and Hide Editortype menu.



Save Toolbar state

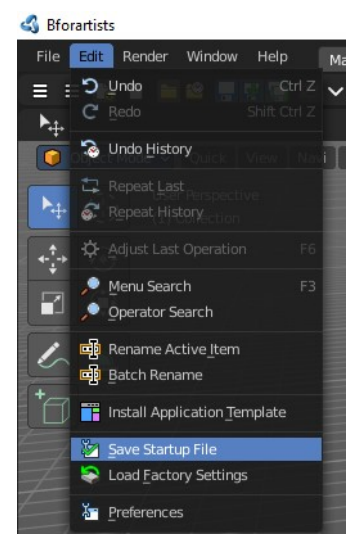
Because of the autosave Preferences feature changes in the menus of the single toolbars are stored automatically.

When you activate for example the Curve toolbar in the Primitives, then the curve toolbar will stay activated when you close and open Bforartists.



But the general setup of the toolbar type is layout. And so you have to save the startup file to make this changes permanent.

Be careful here. Saving the startup file saves every change at the layout. Including things like having a mesh in the scene.



Toolbar Types

Currently the Toolbar editor contains eight toolbar types.

Toolbar Types

The single toolbar types.

Note that you need to save the startup file to make changes at the toolbar types permanent. They are part of the layout. Which was the only way to allow them to act independent from each other.

File - Contains some file menu related tools. Like load save. But also the render menu.

Mesh Edit - Contains tools for Meshes in Edit Mode.

Primitives - Contains the primitives from the Create tab in the Tool Shelf.

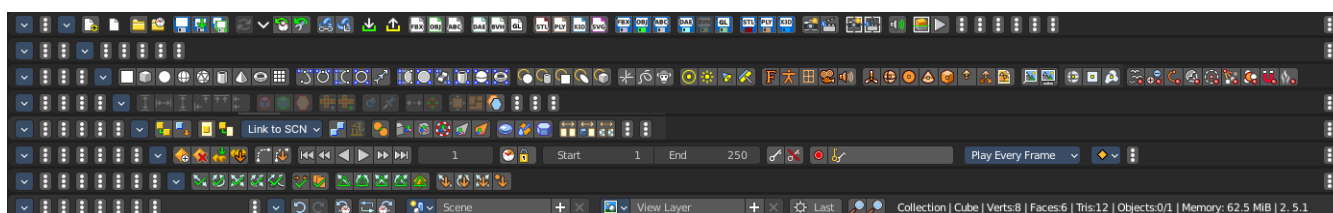
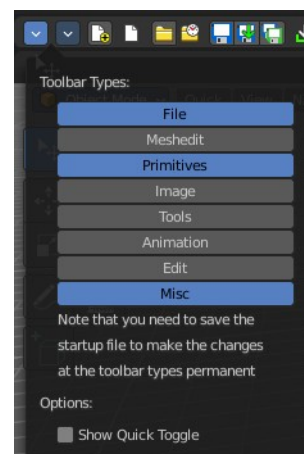
Image - Contains some tools for editing UV

Tools - Contains the content of the Relations panel in Object mode.

Animation - Contains Animation tools

Edit - Contains some tools from Object and Edit Mode

Misc - Contains Undo, and an empty menu as a place holder.



Options

Show Quick Toggle

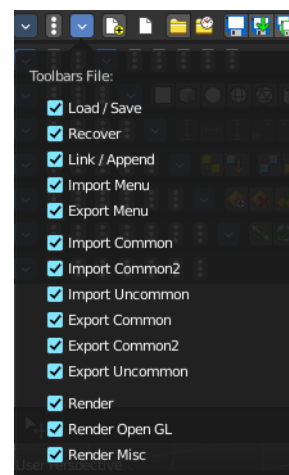
By default you need to turn on or off the toolbar types in the toolbar type menu. With quick toggles turned on you will reveal small buttons besides the single toolbar types that allows you to expand or collapse the toolbar types from within the toolbar. Each quick toggle represents a toolbar type.



Toolbars File

The Toolbars File contains some file menu related tools. Like load save. But also the render menu.

These toolbars are available in all modes.



Available Toolbars

The description of the single buttons goes from left to right.

Load / Save

The original menu items are in the File menu of the Info editor.



File New

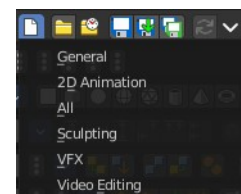
Creates a new scene, using the current template.

New from Template

Creates a new scene in one of the templates.

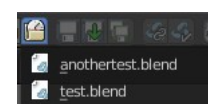
Open

Load a Blend file.



Open Recent

The recent files menu.



Save Blend File

Save a Blend file.

Save As Blend File

Save a Blend file as.

Save Copy

Saves a copy of the Blend file.

Recover

Revert

Reload the saved file.

Recover

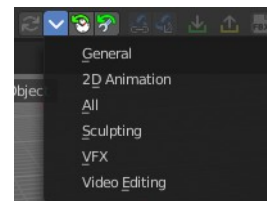
Reload a startup file from one of the templates.

Recover Last Session

Open the last closed file, which is stored in the quit.blend.

Recover Autosave

Open an automatically saved file to recover it. Like after a crash. See Preferences , Save & Load , Autosave



Link Append

The original menu items are in the File menu of the Info editor.



Link from Library

Link content from a Blend file

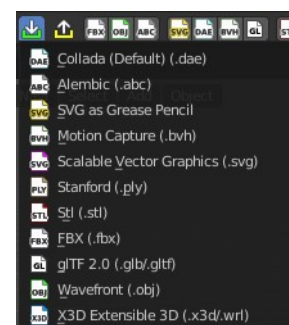
Append from Library

Append content

Import Menu

The Import menu is the same menu that you can find in the File menu of the Info editor. It contains all available file import types.

Note that im- and exporters are partially addons that can be disabled. So some content might miss.

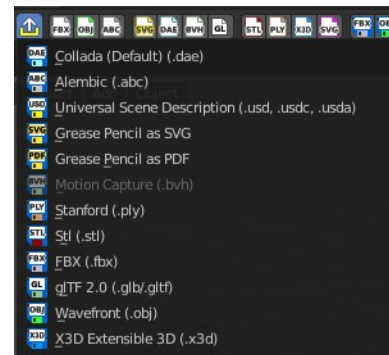


Export Menu

The Export menu is the same menu that you can find in the File menu of the Info editor.

It contains all available file export types.

Note that im- and exporters are partially addons that can be disabled. So some content might miss.



Import Common

The original menu items are in the File menu of the Info editor.



Import FBX

Import FBX files.

Import Obj

Import Object files.

Import ABC

Import Alembic files.

Import Common 2

The original menu items are in the File menu of the Info editor.



Import SVG into Grease Pencil

Import a svg file into a grease pencil object.

Import DAE

Import Collada files.

Import BVH

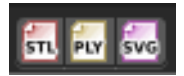
Import Biovision Motion Capture files.

Import glTF2

Import glTF2 files.

Import Uncommon

The original menu items are in the File menu of the Info editor.



Import STL

Import STL files

Import PLY

Import PLY files.

Import SVG

Import SVG Files.

Export Common

The original menu items are in the File menu of the Info editor.



Export FBX

Export as FBX file.

Export Obj

Export as Obj file.

Export ABC

Export as Alembic file.

Export Common 2

The original menu items are in the File menu of the Info editor.



Export Grease Pencil to SVG

Exports a grease pencil object as an svg file.

Export Grease Pencil to PDF

Exports a grease pencil object as a PDF file.

Export DAE

Export as Collada file.

Export BVH

Export as BVH Motion Capture file.

Export USD

Export as USD file.

Export glTF2

Export as glTF2 file.

Export Uncommon

The original menu items are in the File menu of the Info editor.



Export 3DS

Export as 3DS.

Export PLY

Export as PLY file.

Render

The original menu items are in the Render menu of the Info editor.



Render Image

Renders the current scene as an image by using the current offline renderer. Either Blender Internal or Cycles.

Render Animation

Renders the current scene as an animation. Either Blender Internal or Cycles.

Render Open GL



Open GL Render Image

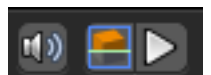
Renders the current scene as an image by using the Viewport and Open GL.

Open GL Render Animation

Renders the current scene as an animation by using the Viewport and Open GL.

Render Misc

The original menu items are in the Render menu of the Info editor.



Mixdown Audio

Mixdown and export the scene's audio to an audio file.

Show/ Hide Render view

Toggles display of Render view.

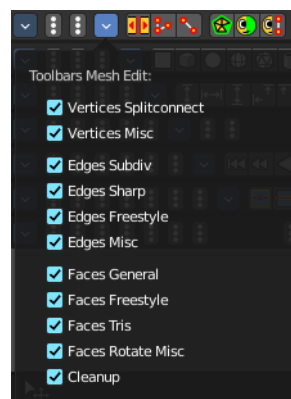
Play rendered animation

Play rendered Animation sequence.

Toolbars Mesh Edit

The Toolbars Mesh Edit contains tools for Mesh Objects in Edit Mode. The original menu items are mainly in the Mesh menu in Edit Mode. In the Vertices, Edges and Faces sub menus.

This toolbars shows its content Edit mode.



Available Toolbars

The description of the single buttons goes from left to right.

Vertices Split connect

Split

Splits two connected Vertices.



Vertex Connect Path

Connect Vertices by their selection order, creating edges, splitting faces

Vertex Connect

Connect selected vertices of faces, splitting the face.

Vertices Misc



Convex Hull

Enclose selected vertices in a convex polyhedron.

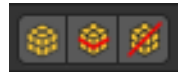
Blend from Shape

Blend in shape from a shape key.

Shape Propagate

Apply selected vertex locations to all other shape keys.

Edges Subdiv



Subdivide

Subdivides selected edges.

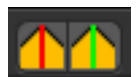
Subdivide Edge Ring

Subdivides an Edge Ring.

Un-Subdivide

Unsubdivides selected edges and faces.

Edges Sharp



Mark Sharp

Mark selected edges as sharp.

Unmark Sharp

Unmark selected edges as sharp.

Edges Freestyle



Mark Freestyle Edge

Mark selected edges as Freestyle feature edges.

Unmark Freestyle Edge

Unmark selected edges as Freestyle feature edges.

Edges Rotate



Rotate

Rotate selected edges or adjoining faces.

Edges Misc



Edge Split

Split selected edges so that each neighbor face gets its own copy.

Bridge Edge loops

Create faces between selected edge loops.

Faces general



Fill

Fill a selected edge loop with faces.

Grid Fill

Fill grid from two loops.

Beautify Faces

Rearrange some faces to minimize degeneration.

Solidify

Create a solid skin by extruding. Compensating for sharp angles.

Intersect

Cut an intersection into faces.

Boolean Intersect

Cut solid geometry from selected to unselected.

Wire Frame

Create a solid wire frame from faces.

Faces Freestyle



Mark Freestyle Face

Mark selected faces for exclusion from freestyle feature edge detection.

Unmark Freestyle Face

Unmark selected faces for exclusion from freestyle feature edge detection.

Faces Tris



Poke Faces

Split a face into a fan.

Triangulate Faces

Triangulates selected faces.

Tris to Quads

Join triangle faces into quads.

Split by Edges

Split faces by loose edges.

Faces Rotate Misc



Rotate UV's

Rotate UV coordinates inside faces.

Reverse UV's

Flip direction of UV coordinates inside faces.

Rotate Colors

Rotate Vertex Colors inside faces.

Reverse Colors

Flip direction of Vertex Colors inside faces.

Cleanup



Delete Loose

Delete loose vertices, edges or faces.

Decimate Geometry

Simplify geometry by collapsing edges.

Degenerate Dissolve

Dissolve zero area faces and zero length edges.

Make Planar Faces

Flatten selected faces.

Split Non Planar Faces

Split non planar faces that exceeds the angle threshold.

Split Concave Faces

Make all faces convex.

Fill Holes

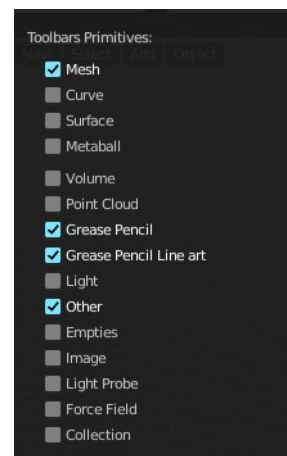
Fill in holes (boundary edge loops).

Toolbars Primitives

The toolbars Primitives contains the Add items from the Create tab.



The full toolbar with all its content is just available in Object mode. In other modes it hides away. Single types are also visible in Edit mode. When you work at a mesh type, then the Mesh primitives toolbar is visible for example.



Available Toolbars

The description of the single buttons goes from left to right.

Mesh

The Mesh toolbar contains the Mesh primitives.



Add Plane

Add a Plane primitive.

Add Cube

Add a Cube primitive.

Add Circle

Add a Circle primitive.

Add UV Sphere

Add a UV Sphere primitive.

Add Cylinder

Add a Cylinder primitive.

Add Cone

Add a Cone primitive.

Add Torus

Add a Torus primitive.

Add Grid

Add a Grid primitive.

Curve

The Curve toolbar contains the Curve primitives.



Add Bezier

Add a Bezier curve primitive.

Add Circle

Add a Circle curve primitive.

Add Nurbs Curve

Add a Nurbs Curve primitive.

Add Nurbs Circle

Add a Nurbs Circle curve primitive.

Add Nurbs Path

Add a Nurbs Path curve primitive.

Surface

The Surface toolbar contains the Surface primitives.



Add Surface Curve

Add a Nurbs Surface curve primitive.

Add Surface Circle

Add a Nurbs Surface Circle primitive.

Add Surface Patch

Add a Nurbs Surface Patch primitive.

Add Surface Cylinder

Add a Nurbs Surface Cylinder primitive.

Add Surface Sphere

Add a Nurbs Surface Sphere primitive.

Add Surface Torus

Add a Nurbs Surface Torus primitive.

Metaball



The metaball toolbar contains the Metaball primitives.

Add Metaball of type Ball

Add Metaball of type Ball primitive.

Add Metaball of type Capsule

Add Metaball of type Capsule primitive.

Add Metaball of type Plane

Add Metaball of type Plane primitive.

Add Metaball of type Ellipsoid

Add Metaball of type Ellipsoid primitive.

Add Metaball of type Cube

Add Metaball of type Cube primitive.

Point Cloud

The Point Cloud toolbar contains the Point Cloud primitive.



Add Point Cloud

Add a point cloud primitive.

Volume

The Volume toolbar contains the Volume primitives.



Import OpenVDB Volume

Imports a OpenVDP volume object.

Add Volume

Adds a volume object.

Grease Pencil



Blank

Inserts a blank Grease Pencil Object. A blank Grease Pencil Object has just one color

Stroke

Inserts a Stroke Grease Pencil Object. A Stroke Grease Pencil Object has a few standard colors already.

Monkey

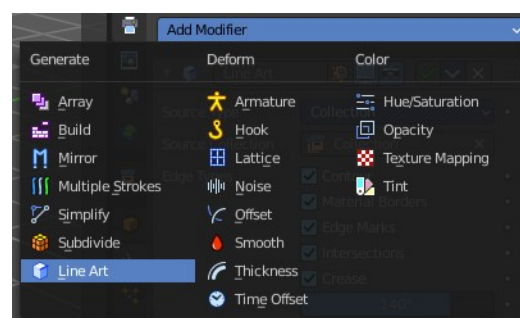
Inserts a Monkey Grease Pencil Object. This is a grease pencil object which contains the shape of a monkey already. This monkey is an example object.

Scene Line Art

Line Art is a modifier for the grease pencil object. Scene Line Art adds a grease pencil object with the Line Art Modifier set up for the whole scene.

Collection Line Art

Line Art is a modifier for the grease pencil object. Scene Line Art adds a grease pencil object with the Line Art Modifier set up for a collection.



Lamp

The Lamp toolbar contains the different lamp types.



Add Lamp of type Point

Add Lamp of type Point.

Add Lamp of type Sun

Add Lamp of type Sun.

Add Lamp of type Spot

Add Lamp of type Spot.

Add Lamp of type Area

Add Lamp of type Area.

Other

The Other toolbar contains some other ground types like bones and text.



Add Text

Add a Text object.

Add Armature

Add an Armature object.

Add Lattice

Add a Lattice object.

Add Camera

Add a Camera object.

Add Speaker

Add a Speaker object.

Empties

The Empties toolbar contains the available empty types.



Add Empty of type Plain Axes

Add Empty of type Plain Axes.

Add Empty of type Sphere

Add Empty of type Sphere.

Add Empty of type Circle

Add Empty of type Circle.

Add Empty of type Cone

Add Empty of type Cone.

Add Empty of type Cube

Add Empty of type Cube.

Add Empty of type Single Arrow

Add Empty of type Single Arrow.

Add Empty of type Arrows

Add Empty of type Arrows.

Add Empty of type Image

Add Empty of type Image.

Image



Reference Image

Creates a plane with an image that can be used as a reference image.

Background Image

Creates a plane with an image that can be used as a Background image.

Images as Planes

Creates a mesh plane with an image.

Light Probe



Sphere

Adds a reflective light probe in sphere shape.

Plane

Adds a reflective light probe in plane shape.

Volume

Adds a volumetric array light probe.

Force Field

The Force Field toolbar contains the available Force field types.



Add Physics Effector of Type Boid

Add Physics Effector of Type Boid.

Add Physics Effector of Type Charge

Add Physics Effector of Type Charge.

Add Physics Effector of Type Curve Guide

Add Physics Effector of Type Curve Guide.

Add Physics Effector of Type Drag

Add Physics Effector of Type Drag.

Add Physics Effector of Type Force

Add Physics Effector of Type Force.

Add Physics Effector of Type Harmonic

Add Physics Effector of Type Harmonic.

Add Physics Effector of Type Lenard-Jones

Add Physics Effector of Type Lenard-Jones.

Add Physics Effector of Type Magnetic

Add Physics Effector of Type Magnetic.

Add Physics Effector of Type Smoke Flow

Add Physics Effector of Type Smoke Flow.

Add Physics Effector of Type Texture

Add Physics Effector of Type Texture.

Add Physics Effector of Type Turbulence

Add Physics Effector of Type Turbulence.

Add Physics Effector of Type Vortex

Add Physics Effector of Type Vortex.

Add Physics Effector of Type Wind

Add Physics Effector of Type Wind.

Collection

Add Collection Instance

Add a collection instance.

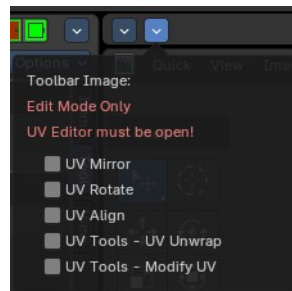
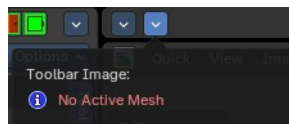
Toolbars Image

The toolbars Image contains some image related tools. At the moment this toolbar contains just tools to edit UV meshes. This means that you have to be in Edit mode with an UV mapped mesh to make the tools active.



The original menu items are in the Image menu of the UV Image Editor.

Note that the tools does not show when you are not in edit mode. And the tools just works for the UV Editor. And of course you need a mesh object.



Available Toolbars

The description of the single buttons goes from left to right.

UV Mirror

Mirror along X or Y axis.



UV Rotate

Rotate by 90 degrees clockwise or counter clockwise.



UV Align

The UV Align toolbar contains tools to clean up and align the selected UV geometry.



Align Straighten

Align UV's along the line defined by the end points of the selection.

Align Straighten X

Align UV's along the line defined by the end points along the X axis.

Align Straighten Y

Align UV's along the line defined by the end points along the Y axis.

Align Auto

Automatically choose the axis on which there is most alignment already.

Align X

Align UV's at X axis.

Align Y

Align UV's at Y axis.

Align Rotation

Aligns the rotation of the selected geometry.

UV Unwrap

The UV Common toolbar contains tools for unwrapping.



Mark Seam

Mark selected UV Edges as Seam.

Clear Seam

Remove Seam from selected UV Edges.

Seams from Islands

Marks the border edges of the UV patches as Seam.

Unwrap Angle Based

Unwraps the selected geometry with the Angle based (ABF) method.

Unwrap Conformal

Unwraps the selected geometry with the Conformal (LSCM) method.

Unwrap Minimize Stretch

Unwraps the selected geometry with the SLIM method.

Cube Projection

Maps the selected geometry with a cube projection.

Cylinder Projection

Maps the selected geometry with a cylinder projection.

Sphere Projection

Maps the selected geometry with a sphere projection.

UV Modify UV

The UV Modify toolbar contains tools to clean up the UV mapping.



Pin

Pins the selected vertices.

Unpin

Unpins the selected vertices.

Weld

Weld the selected UV vertices together.

Remove Doubles UV

Removes double vertices

Average Island Scale

Average the size of separated UV patches, based at their size in 3D space.

Pack Island

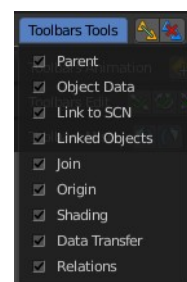
Packs the UV patches so that they fit best into the UV space, and as few texture space as possible is wasted.

Copy mirrored UV Coordinates

Copy mirrored UV Coordinates at X axis based on a mirrored mesh.

Toolbars Tools

The Toolbars Tools contains some tools in object mode. The content from the relations panel and the edit panel in the tool shelf. And one tool in Edit mode. Make Vertex Parent. Since this is also part of the relations panel.



Available Toolbars

The description of the single buttons goes from left to right.

Parent



Make Parent

Parents the selected object to the active object.

Clear Parent

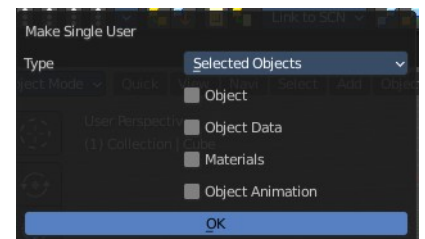
Removes the parenting.

Object to Data



Make Single User

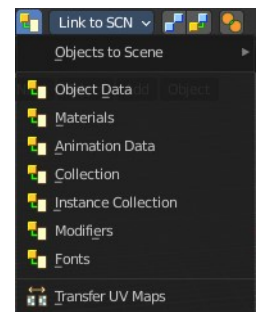
Make linked data local to each object. This operator opens a popup to adjust further settings.



Link Data

Apply active object links to other selected objects.

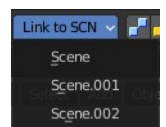
This button is a menu to choose the link method.



Link to SCN

Link to SCN

Link selection to another scene. This other scene has of course to exist.



Linked Objects



Make Local

Make library linked data blocks local to this file.

Make Library Override

Add empty object to become local replacement data of a library linked object.

Join



Join

Join selected objects into active objects.

Origin



Set Geometry to Origin

Sets the geometry to origin.

Set Origin to Geometry

Sets the origin to geometry.

Set Origin to 3D cursor

Sets the origin to the 3D cursor.

Set Origin to Center of Mass

Sets the origin to the center of mass.

Set Origin to Center of Volume

Sets the origin to the center of volume.

Shading

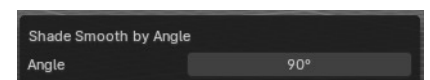


Shade Smooth

Shades the geometry smooth.

Shade Smooth by Angle

Activate auto smooth, and define the angle. Note that you need to call the adjust last operator here to set the angle. Either with the Last button. Or with the hotkey F6.



Shade Flat

Shades the geometry flat.

Data Transfer



Transfer Mesh Data

Transfers mesh data.

Transfer Mesh Data Layout

Transfers the mesh data layout.

Join UV's

Transfer UV Maps.

Relations

The Relations toolbar contains one tool in Edit mode. Make Vertex Parent.

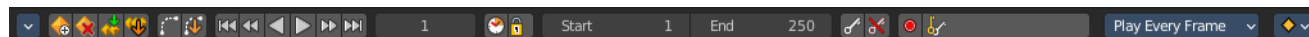
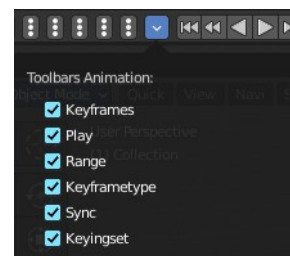


Make Vertex Parent

Parents an object to the selected vertice(s).

Toolbars Animation

The Toolbars Animation contains tools around animation. The Toolbars Range, Play, Sync and Keying set are the toolbars from the Timeline. But separated into four independent parts.



Available Toolbars

The description of the single buttons goes from left to right.

Keyframes

The Keyframes toolbar contains some keyframe tools. The original menu items can be



found in the Tool Shelf in the Animation tab in the Animation panel.

The original menu items are in the Tool Shelf in the 3D View, in the Animation tab in the Animation panel.

Insert Keyframe Menu

When there is no keying set assigned to the currently selected object, then this button is a menu to choose a keying set. When there is already a keying set assigned, then you can record a keyframe with this button

Delete Keyframe

Deletes the current Keyframe

Bake Action

Bakes the animation to a new action

Remove Animation

Remove all keyframe animation for selected objects

Calculate Object Paths

Calculate motion paths for the selected objects.

Clear Object Paths

Clears motion paths for the selected objects.

Play



Jump to Endpoint

Jumps to beginning of animation.

Jump to Keyframe

Jumps to the previous keyframe Play Animation.

Play Animation

Plays animation reversed.

Play Animation

Plays animation forward.

Jump to Keyframe

Jumps to next keyframe.

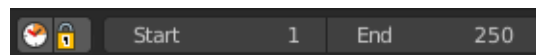
Jump to Endpoint

Jumps to end of animation.

Current Frame

The current frame number.

Range



Use Preview Range

Use an alternative start/end frame grange for animation playback and OpenGL renders instead of the Render Properties start/end frame range.

Lock Frame Selection to Range

Don't allow frame to be selected with mouse outside of frame range.

Frame Start

The frame start point.

Frame End

The frame end point.

Keying set



Insert Keyframe

Insert a keyframe.

Delete Keying set Keyframe

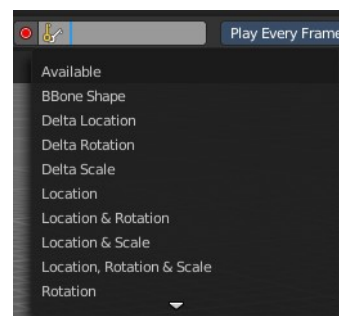
Delete Keyframe.

Use Keyframe Insert Auto

Auto insert keyframes at manipulation.

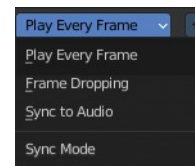
Keying set Drop down box

This is a drop down box to choose the keying set method.



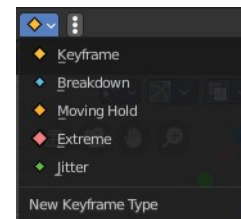
Sync

Sync is a drop down box where you can adjust the syncing method.



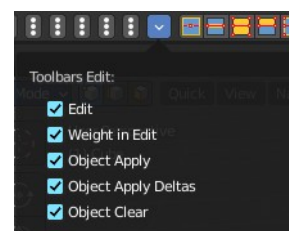
Keyframe Type

Keyframe Type is a drop down box to choose in what color the keyframe gets displayed in the Dope Sheet Editor.



Toolbars Edit

The Toolbars Edit contains various toolbars around editing. Some content just shows when an object exists in the scene. Some content is visible in Object mode. Some content is visible in Edit mode.



Available Toolbars

The description of the single buttons goes from left to right.

Edit

The Edit toolbar is just visible in Edit Mode. The original menu items are in the Tool Shelf in the 3D View in the Tools tab in the Mesh Tools panel.



Dissolve Vertices

Dissolve Vertices.

Dissolve Edges

Dissolve Edges.

Dissolve Faces

Dissolve Faces.

Remove Doubles

Removes double vertices.

Limited Dissolve

Dissolve Edges and Vertices limited by the surrounding angle.

Dissolve Selection

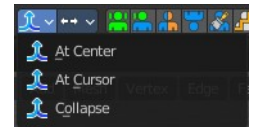
Dissolve Geometry dependent of selection mode.

Edge Collapse

Collapse selected edges.

Merge

Merges selected geometry. This is a drop down box to choose where to merge.



Separate

Separate the selection, and create a new object from it. This is a drop down box to choose the separate method.



Weight in Edit



The Weight in Edit toolbar is just visible in Edit Mode for normal meshes, and Pose mode when you have a rigged character selected. The original menu items are in the Tool Shelf in the 3D View in the Tools tab in the Weight Tools panel. You need to have a Vertex Group applied.

Normalize all

Normalizes the whole mesh.

Normalize

Normalizes the selection

Mirror

Mirrors the selection.

Invert

Inverts the weighting.

Clean

Remove Vertex Assignments that are not required.

Quantize

Set Weights to a fixed number of steps.

Levels

Add some offset and multiply with some gain the weights of the active vertex group.

Smooth

Smooth weights for selected vertices.

Limit Total

Limit deform weights.

Object Apply



The Object Apply toolbar is just visible in Object Mode. The original menu items are in the Object menu in the 3D View. The Apply menu.

Apply Location

Apply location.

Apply Rotation

Apply Rotation.

Apply Scale

Apply Scale.

Apply All

Apply Location, Rotation, Scale.

Apply Rotation & Scale

Apply Rotation, Scale.

Apply Visual Transform

Apply Visual Transform.

Apply Make Duplicates real

Make Duplicates attached to this object real.

Object Apply Deltas



Object Apply deltas converts normal object transforms to delta transforms. Any existing delta transform will also be included.

Location

Apply location.

Rotation

Apply Rotation.

Scale

Apply Scale.

All

Apply Location, Rotation, Scale.

Transforms to Delta Anims

Convert object animation for normal transforms to delta transforms.

Object Clear



The Object Clear toolbar is just visible in Object Mode. The original menu items are in the Object menu in the 3D View. The Clear menu.

Location

Resets the position of the object to zero.

Rotation

Resets the object's rotation to zero.

Scale

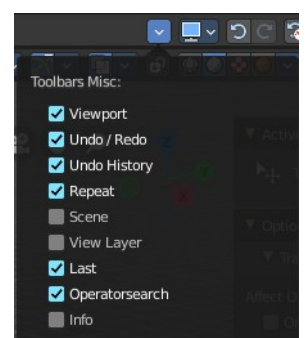
Resets the object's scale to 1.

Origin

Resets the Origin Position.

Toolbars Misc

The Toolbars Misc contains some miscellaneous tools. Undo, the Scene drop down box, Last Operator, Operator Search and scene informations.





Available Toolbars

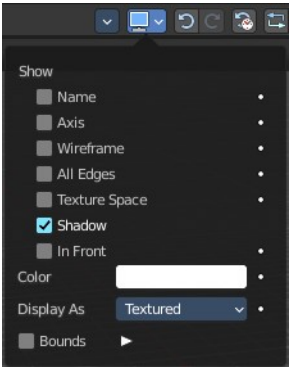
The description of the single buttons goes from left to right.

Viewport

Displays the viewport panel from the object properties tab in the properties editor.

This panel allows you to adjust the display of the selected object.

Note that you need to have an object selected to show this dropdown panel.



Undo / Redo



Undo

Undo the last step

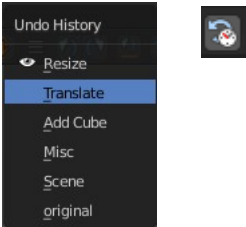
Redo

Redo the last undone step

Undo History

Undo History

A click at the button reveals a list of the last operations where you can undo more than one step.



Repeat

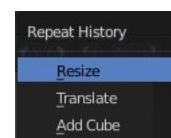


Repeat

Repeats the last action

Repeat History

A click at the button reveals a list of the last operations to choose from which undo step to repeat.



Scene

The Scene drop down box to choose and create a new scene data block. The original drop down box is in the Properties editor in the Scene Properties tab in the Scene panel.



View Layer

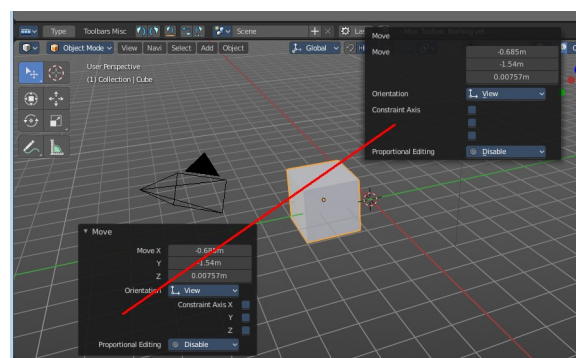
Show the active view layer and switch between available view layers.

The original drop down box is in the Properties editor in the View Layer Properties in the View Layer panel.



Adjust last Operation

Adjust the latest operation. This is the same panel than the one in the 3D view down left. At least when it comes to content.



Operatorsearch

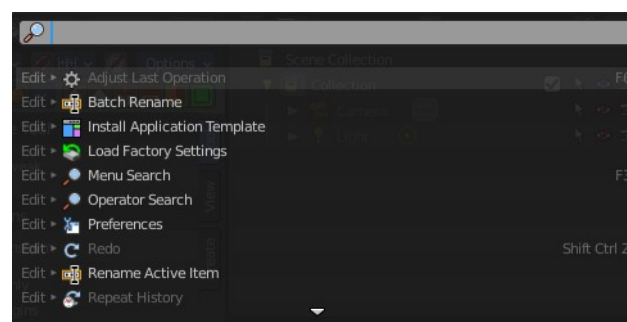
This toolbar contains two search options. The search menu allows you to search for menus. The operator search menu allows you to search for single operators.



Search Menu

The original menu item is in the header in the Edit menu. It lists the available menus, and allows searching.

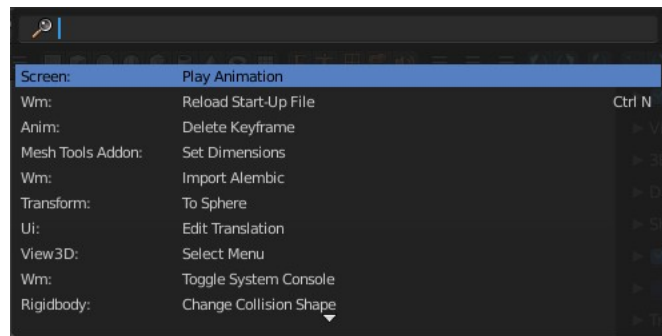
This button calls the menu search menu.



Search Operator

The original menu item is in the header in the Edit menu.

This button calls the Operator search menu. It lists the available operators, and allows searching.



Info

The Info toolbar displays the scene statistics.

A screenshot of the Info toolbar in Bforartists 4. The toolbar is a dark horizontal bar with white text displaying scene statistics. The text reads: 'Collection | Cube | Verts:8 | Faces:6 | Tris:12 | Objects:1/1 | Memory: 16.0 MiB | 2.92.0 Alpha'.

Collection | Cube | Verts:8 | Faces:6 | Tris:12 | Objects:1/1 | Memory: 16.0 MiB | 2.92.0 Alpha