



18.1.7 Editors - Graph Editor - Key Menu

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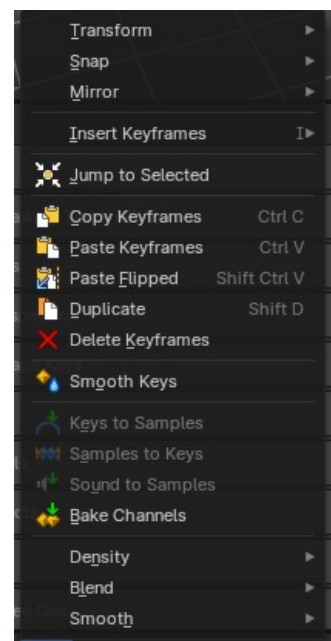
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Graph Editor - Key Menu

This menu contains functionality to manage keyframes.



Transform

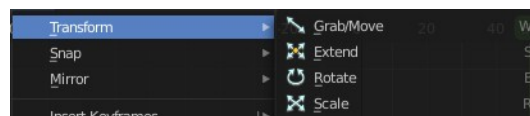
Grab/Move

Moves the selected keyframe(s).

Last Operator Move

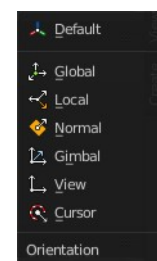
Move X, Y Z

The position. Attention, the actual world orientation and rotation does not matter here. It always starts with a value of zero, and moves relative to this zero then. For the actual location values have a look in the sidebar in the transform panel.



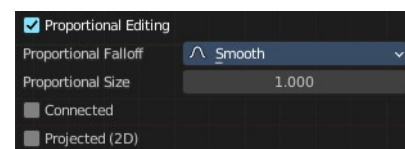
Orientation

The widget can have different orientations. The menu items should be self explaining.



Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.



Proportional Falloff

Adjust the falloff methods.

Proportional Size

See and adjust the falloff radius.

Connected

The proportional falloff gets calculated for connected parts only.

Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

Extend

Moves the last keyframes of the selection.

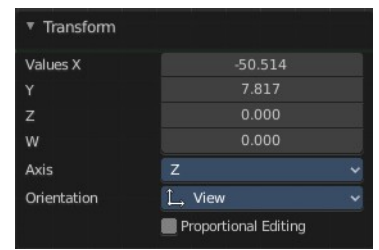
Last Operator Transform

Values X, Y Z, W

The new position.

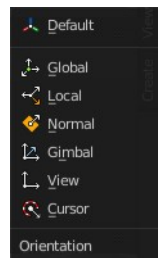
Axis

Which axis to transform.



Orientation

The widget can have different orientations. The menu items should be self explaining.



Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.

Proportional Falloff

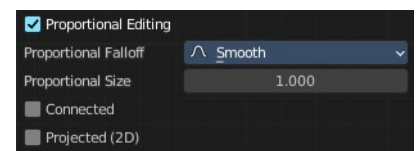
Adjust the falloff methods.

Proportional Size

See and adjust the falloff radius.

Connected

The proportional falloff gets calculated for connected parts only.



Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

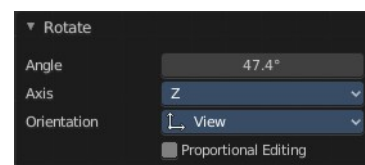
Rotate

Rotates the selection.

Last Operator Rotate

Angle

The rotation. Attention, the actual world orientation and rotation does not matter here. It always starts with a value of zero, and rotates relative to this zero then. For the actual rotation values have a look in the sidebar in the transform panel.

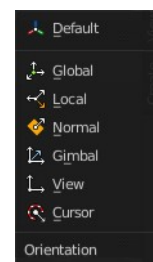


Axis

Which axis to rotate.

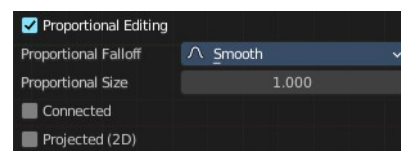
Orientation

The widget can have different orientations. The menu items should be self explaining.



Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.



Proportional Falloff

Adjust the falloff methods.

Proportional Size

See and adjust the falloff radius.

Connected

The proportional falloff gets calculated for connected parts only.

Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

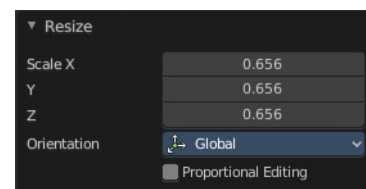
Scale

Scales the selected keyframes. You need to have more than one keyframe selected.

Last Operator Resize

Angle

The rotation. Attention, the actual world orientation and rotation does not matter here. It always starts with a value of zero, and rotates relative to this zero then. For the actual rotation values have a look in the sidebar in the transform panel.

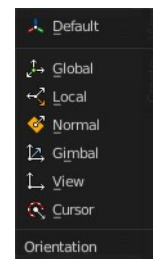


Axis

Which axis to rotate.

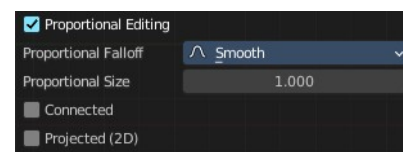
Orientation

The widget can have different orientations. The menu items should be self explaining.



Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.



Proportional Falloff

Adjust the falloff methods.

Proportional Size

See and adjust the falloff radius.

Connected

The proportional falloff gets calculated for connected parts only.

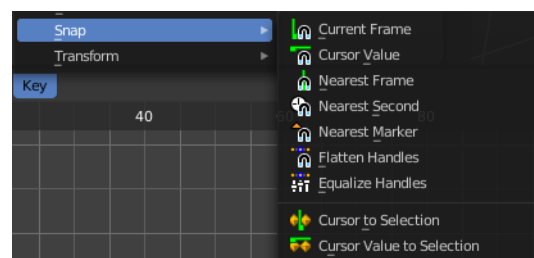
Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

Snap

Snaps the selected keyframes by the chosen method.

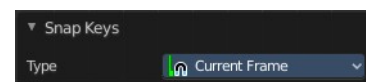
Cursor to Selection and Cursor Value to Selection does not have a last operator.



Last Operator Snap Keys

Type

Snap the selected keyframes by the chosen method.



Equalize Handles

Equalize handles is not really a snap method. And therefore it also has another last operator. The Equalize Handles operator allows users to make selected handle lengths uniform: either respecting their original angle from the key control point or by flattening their angle (removing the overshoot sometimes produced by certain handle types).

Last Operator Equalize Handles



Side

Which side of the control point to affect.



Handle length

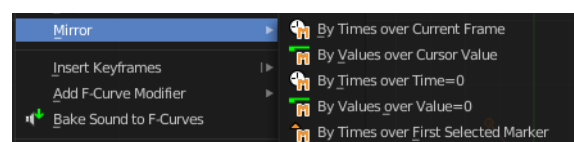
How long the handles should become.

Flatten

Equalize the length of the handlers to the other keyframes.

Mirror

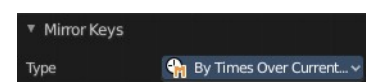
Flips the selected keyframes over the current frame position.



Last Operator Mirror Keys

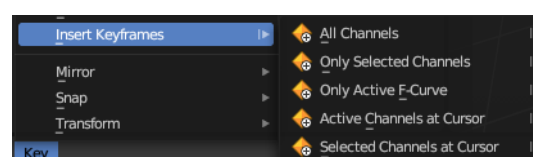
Type

Flips the selected keyframes over the current frame position by the chosen method.



Insert Keyframes

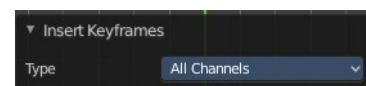
Choose a method how to insert a new keyframe at the current frame position.



Last Operator Insert Keyframes

Type

Choose a method how to insert a new keyframe at the current frame position.



Jump to Selected

Sets the frame marker at the average position of the currently selected keyframes.

Copy Keyframes

Copy selected keyframes.

Paste Keyframes

Pastes copied keyframes.

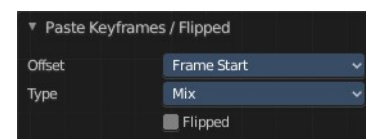
Paste Flipped

Pastes copied keyframes, but flipped.

Last Operator Paste Keyframes / Flipped

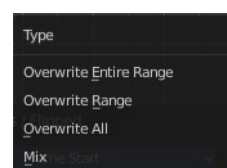
Offset

Define an offset for the paste position.



Type

Choose a method how to paste the copied keyframes.



Flipped

Pastes keyframes from mirrored bones if they exists.

Duplicate

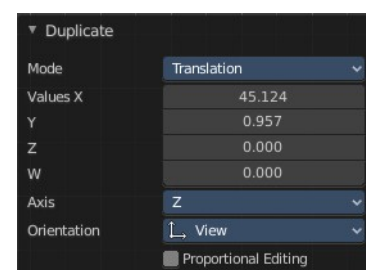
Duplicate selected keyframes.

Last Operator Duplicate

Mode

Values X / Y

The x and y values for the pasted keyframes. Note that these values starts at the position of the original copied keyframe. These values are relative.



Values Z and W have no effect here.

Axis

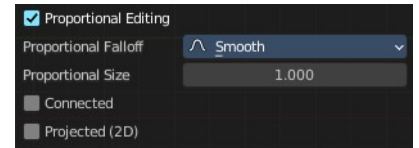
These values have no effect.

Orientation

These values have no effect.

Proportional editing

Enables proportional editing. Activating proportional editing reveals further settings.



Proportional Falloff

Adjust the falloff methods.

Proportional Size

See and adjust the falloff radius.

Connected

The proportional falloff gets calculated for connected parts only.

Projected(2D)

The proportional falloff gets calculated in the screen space. Depth doesn't play a role. When it's in the radius, then it gets calculated.

Delete Keyframes

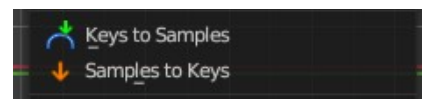
Deletes selected keyframes.

Smooth Keys

Make selected curves less bumpy.

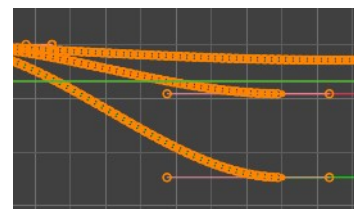
Keys to Samples

Bake selected F-Curves to a set of sampled points. This makes the curve not longer editable.



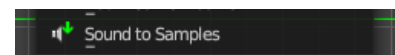
Sample to Keys

Un-bake a sampled point F-Curve to make it editable again.



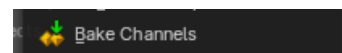
Sound to Samples

This operator takes a sound file and uses its sound wave to create the animation data. When running it, you will be prompted to load an audio file to apply to the selected channels.



Bake Channels

Creates keyframes following the current shape of F-Curves of selected channels for the entire channel within the frame range.



Density sub menu

Decimate (Ratio)

Decimate F-Curves by removing keyframes that has the least influence to the curve shape.

Decimate (Allowed Change)

Decimate F-Curves by specifying how much it can derivative from the original curve.

Last Operator Decimate Keyframes

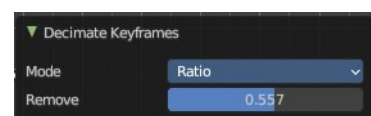
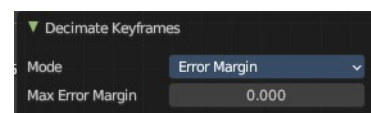
This last operator appears for both decimate operators.

Mode

The decimate mode. Error margin is Allowed change.

Remove or Max Error Margin

The percentage of keyframes to remove.



Bake Keyframes

Adds a keyframe on every frame between the selected keyframes.

Clean Keyframes

Simplify FCurves by deleting keyframes that are close to each other in all channels.

Clean Channels

Simplify FCurves by deleting keyframes that are close to each other in selected channels.

Last Operator Clean Keyframes

Threshold

The threshold amount for the simplify algorithm.

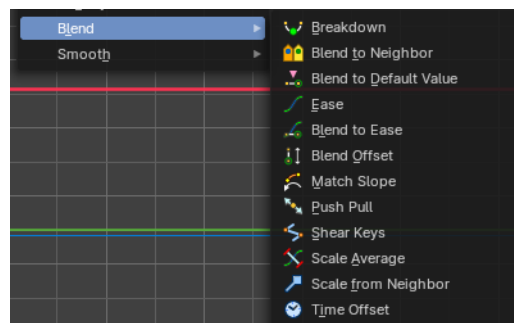
Channels

Clean keyframes or channels.



Blend sub menu

This sub menu contains slider operators to modify a selection of keyframes on the f-curves.



Breakdown

Relaxes the current pose to an inbetween position between the adjacent keyframes.

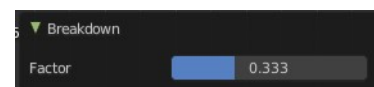
When you perform the tool then you will see a per cent slider in the header where you can read the percentual influence of the blending. Move the mouse to position the blend pose where you need it.

Last Operator Breakdown



Factor

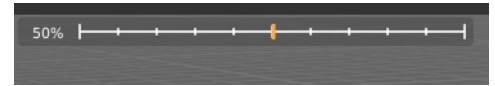
The percentage of relaxing.



Blend to Neighbour

Blends the current pose with the neighbouring poses.

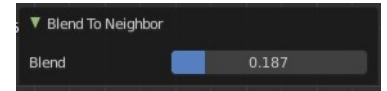
When you perform the tool then you will see a per cent slider in the header where you can read the percentual influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Blend to Neighbour

Blend

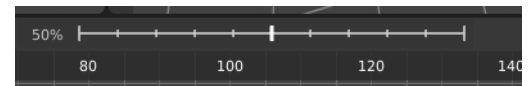
The blend factor.



Blend to default Value

Blends the current pose to the default pose.

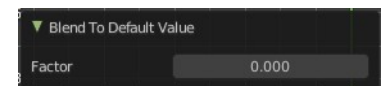
When you perform the tool then you will see a per cent slider in the header where you can read the percentual influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Blend to Default

Factor

The blend factor.

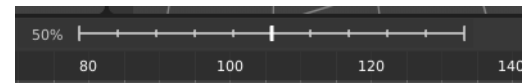


Ease

Adds an ease in and ease out at the selected curves.

Ease

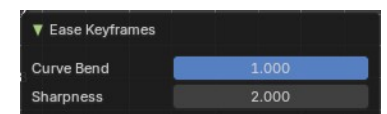
When you perform the tool then you will see a percent slider in the header where you can read the influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Ease Keyframes

Factor

The blend factor.



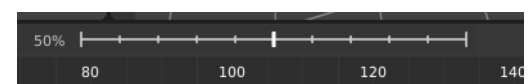
Sharpness

How smooth to ease. Higher values makes the ease more sharp.

Blend to Ease

This will blend keyframes from the current state to an ease-in or ease-out curve.

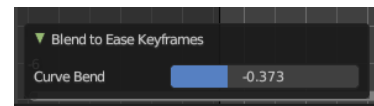
When you perform the tool then you will see a percent slider in the header where you can read the influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Blend to Ease Keyframes

Curve Blend

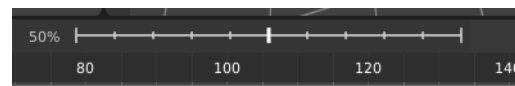
The curve blend factor.



Blend Offset

Shift the selected keyframes to the value of the neighboring keys as a block.

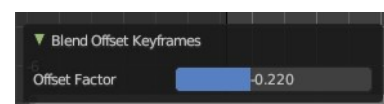
When you perform the tool then you will see a percent slider in the header where you can read the influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Blend Offset Keyframes

Offset Factor

The blend factor.



Match Slope

This operator is used to push the segment closer to the values of the next or previous pose. It blends selected keys to the slope of two neighboring keyframes before and after the selection.

Use this to push the segment closer to the values of the next or previous pose.



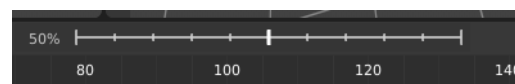
Last Operator Match Slope

The match slope factor.

Push Pull

Pushes or pulls the selected keyframes.

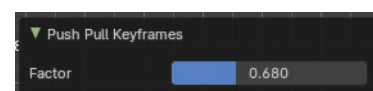
When you perform the tool then you will see a percent slider in the header where you can read the influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Blend Push Pull Keyframes

Factor

The push / pull factor.



Shear

Shears the value of the selected keyframes. The shearing is linear. And it keeps the relationship between the

keyframes, using either the left or the right key as the referene.

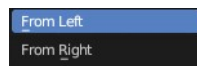
Last Operator Shear Keyframes

Shear Factor

The amount to shear the values.

Direction

Which key to pick to keep the relation. Left from the selection or right from the selection.

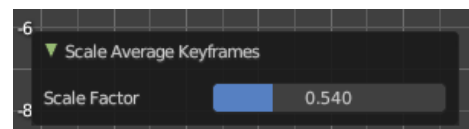


Scale Average

Increase or decrease the value of the selected keys in relationship to their average. At a full value, this will flatten all keyframes.

Last Operator Match Slope

The Scale Average Keyframes Scale Factor.



Scale from Neighbor

Increase or decrease the value of selected keys in relationship to the neighbouring one.

When you perform the tool then you will see a percent slider in the header where you can read the influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Scale from Neighbor

Factor

The strenght

Reference Key

If the left or the right neighbour key should be used.



Time Offset

Offsets the selected keyframes by a time amount.

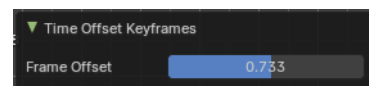
When you perform the tool then you will see a percent slider in the header where you can read the influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Blend Push Pull Keyframes

Frame Offset

The time frame offset factor.



Smooth sub menu

Smooth (Gaussian)

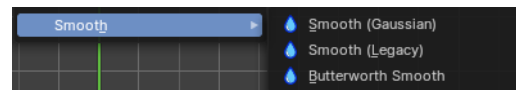
Smoothens the selected curves with the Gaussian algorithm.

Smooth (Legacy)

Smoothens the selected curves with the legacy algorithm.

Butterworth Smooth

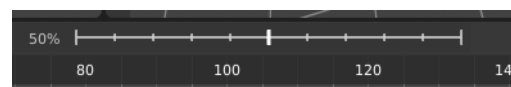
Smoothens the selected curves with the Butterworth algorithm.



Blend to default Value

Adds an ease in and ease out at the selected curves

When you perform the tool then you will see a per cent slider in the header where you can read the percentual influence of the blending. Move the mouse to position the blend pose where you need it.



Last Operator Gaussian Smooth

Factor

The blend factor.

Sigma

The shape of the gaussian distribution. Lower values makes it sharper

Filter width

How far to each side in frames will the filter average the key values.

