# Curve Editor

## Curve Editor

The Curve Editor is a special editing mode in the "Animation Timeline" panel, which allows graphical editing of the animation values on the interpolation curve.

- Double click on an animated property in Animation Timeline panel to open the Curve Editor of the animated property. It is possible to Use ctrl-scroll to zoom-in/out in the Curve Editor.
- Double clicking again switches back to the default editing view in the Timeline Editor.

These two editing modes can also be selected from the context menu of the animated property in Animation Timeline panel.

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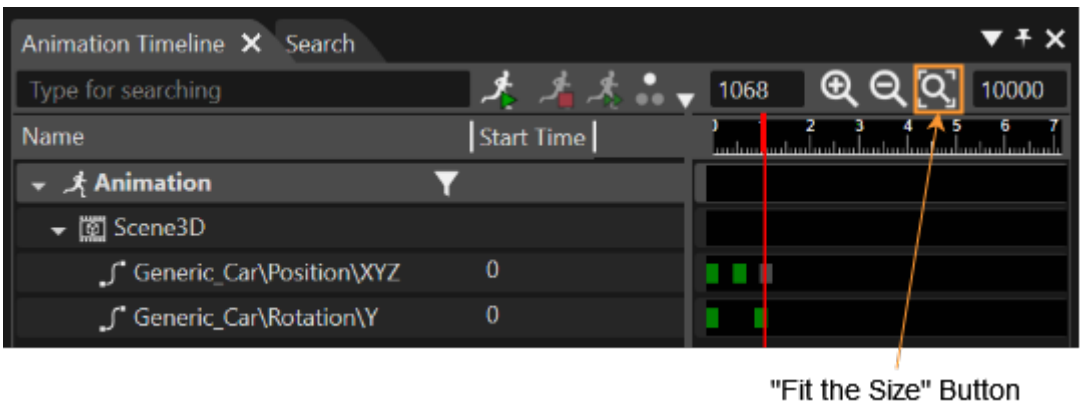
## Modify Key Frame Values

In "Curve Editor" the vertical ax represents the range of values for the property and the horizontal one the Timeline. The key frame values can be modified by moving them with the mouse.

Depending on the animated property each channel is represented (highlighted with different colors) and can be modified.

On the top right side of the panel following options are available:

- Select the channel which shall be visible in the curve by enabling or disabling the checkbox for the channel.
- Select the color which shall be used to highlight a given channel in the Curve Editor.
- Set the current time by editing the text box in the upper right corner of the panel.



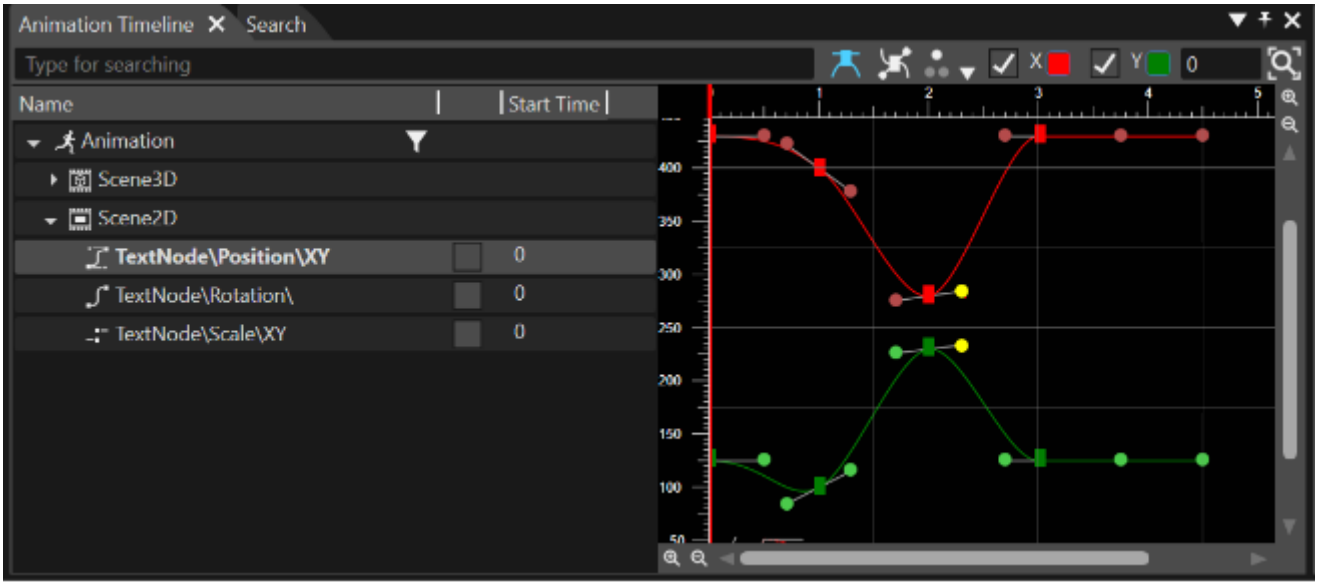
Almost on the top right side of the panel the "Fit the size" button allows the user to set the time ruler to fit the size of the panel.

Refer to Animation editing modes for a description of helpers available for modifying key frame sequences.

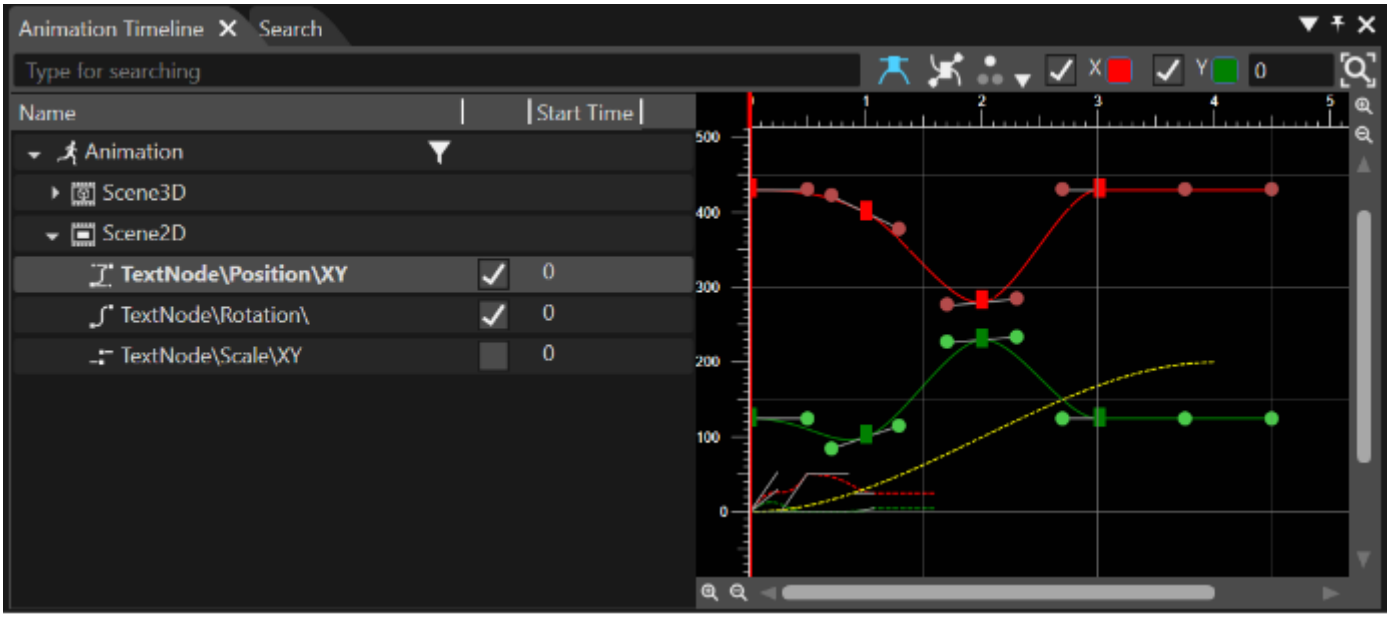
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## Bézier Animations in Curve Editor

Note that for Bézier Animations, more control points are available to manipulate key frame values.




When in curve mode you can see a checkbox next to each animated property in the Animation Timeline panel. This checkbox can be used to configure the visibility of the animation curves. The curve of the currently selected animated property is displayed as continuous line, the remaining curves are displayed as dotted lines.




- In the image above, the first animated Property (Position\XY) is selected - therefore, the red and green lines are displayed continuously.

- The second animated Property (Rotation) is configured to be visible but is not selected - therefore it is displayed as dotted line (in yellow).
- The last animated Property (Scale) is neither configured to be visible nor is it selected - therefore it is not displayed at all.

## Enable/Disable control point pairing




Two control points (left and right, on the timeline) can be "paired" when:

- only a keyframe exists between them
- the predecessor of the left control point is also a control point
- the control point following the right control point is also a control point

When Pairing will be disabled, SceneComposer will behave like it does usual - Controls points will be adjusted freely, independently one of another. When Pairing is enabled the user drags the selected control point, the paired control point will automatically be adjusted so that the control points and the keyframe are colinear (are on the same line) and the keyframe lines in the middle of the segment determined by the two control points.

## Show/Hide tangents

The Bézier tangents can be shown or hidden. This feature is applied to Bézier interpolation and is available through a toggle button "Show tangents".




The button will become available when at least one animated property within the selected ones has Bézier interpolation. The tangents will be drawn by connecting each keyframe to the nearest control point(s) (one control point - on one side - or two control points - on both sides). A control point surrounded by two keyframes is excluded from this rule. Also, all control points before the first keyframe and the control points after the last keyframe are excluded from this rule.

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