

SPACE CURVES

PERFECT MOTION PATHS FOR AFTER EFFECTS.

Created by Manny Morales
Special Thanks: Lori Schwartz, Bryan Brinkman, Danny Princz



INTRODUCTION

WHAT IS SPACE CURVES?

Space Curves is a tool for After Effects that reveals hidden numbers in motion paths, which make perfect curves possible. Just press the blue 'copy'  button to reveal and edit curve values, then click apply 

Whether you copy existing values or use one of the built-in style presets, the Style Slider makes adjusting motion paths quick and enjoyable.

WHAT PROJECTS CAN I USE IT ON?

Infographics, Logo Animations, Character Animations, VFX Animations, and any project where control of motion paths is needed.

FEATURES

- Reveal bezier curve exact positions in space
- Get started quickly using preset curve styles
- Modify a curve's intensity with a slider
- Manipulate multiple curves simultaneously
- Inspect and repair existing curves

WHO MAKES SPACE CURVES?

Space Curves was created by Manny Morales, a Software Engineer and Lead VFX Artist (Saturday Night Live, Late Night with Seth Meyers) in NYC. For more info, visit movingartwork.net or contact him directly at manny@movingartwork.net.

INSTALLATION

To run as a dockable panel

Move the "SpaceCurves.jsx" into your "ScriptUI Panels" folder

Windows: Program Files\Adobe\Adobe After Effects <version>\Scripts\Script UI Panels

Mac OS: Applications/Adobe After Effects <version>/Scripts/ScriptUI FPanels

To run without Installation

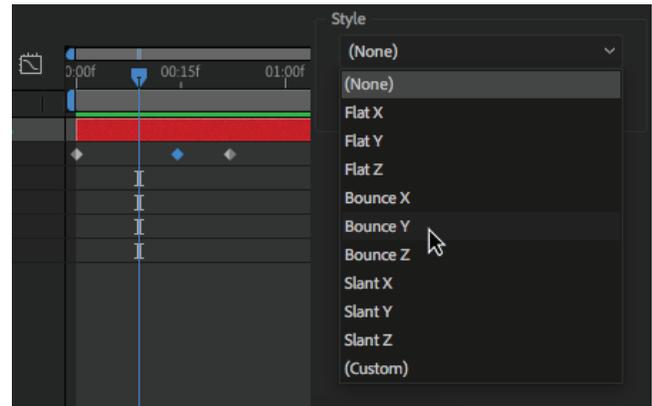
Open After Effects and select File > Scripts > Run Script and choose SpaceCurves.jsx

Note: Running a script without installation will not allow you to dock it along with other panels.

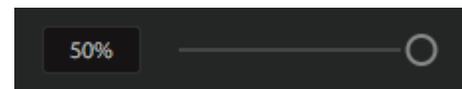
For more information on running and installing scripts, visit helpx.adobe.com/after-effects/using/scripts.html

QUICK START

The easiest way to start getting results is to select position keyframe(s), and pick a Style from the dropdown.



Play with the slider to change the curve amount.

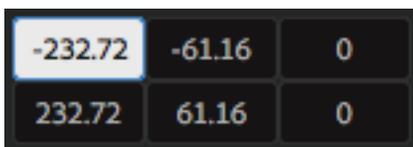


If you want to work with a bigger curve, click Plus **+** then click Copy . The slider will now use the bigger curve.

To work with a smaller curve, bring the slider down to the size you want and click Copy. The slider will now use the smaller curve.

If you have a motion path already and want to see the hidden curve values, select one of the position keyframes and click Copy. The value fields will now show the hidden curve values.

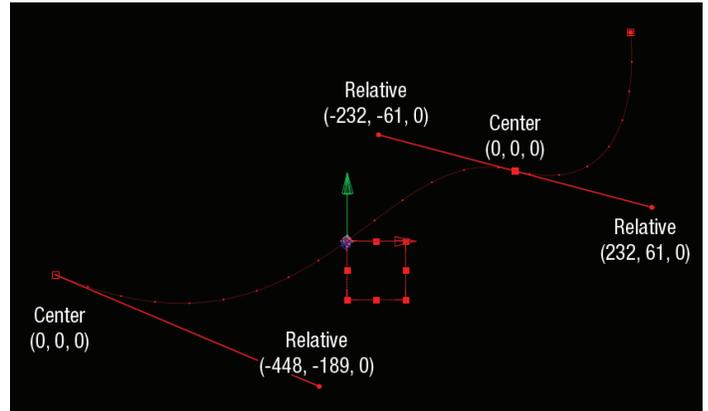
Now you can type in whatever you want to replace those values



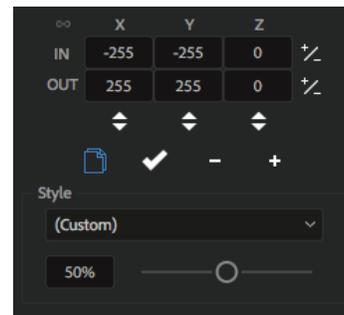
and click Apply 

HOW IT WORKS

When you pick a style, the value fields change to show how far the handles are from the keyframe. (illustrated on the right)

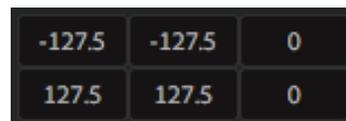


The slider changes the size of the curve where the Maximum (100%) equals the values in the fields. For instance, 50% of -255, -255, 0 would be -127.5, -127.5, 0.



The slider values won't appear in the value fields because the slider references them. To get the values into the value fields, press Copy 

The fields will show the new values and the slider will use that as the reference.

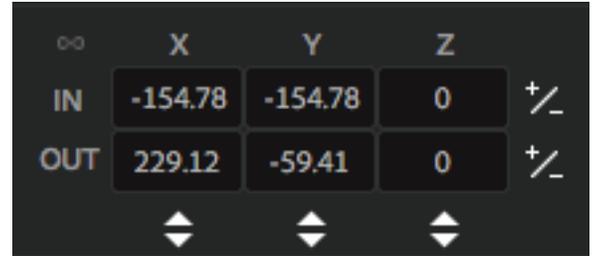


Copying, Inverting, Swapping, and Manually typing-in values won't change your curves. To get curves from the value fields, Click Apply 

EDITING VALUE FIELDS

Value Fields

The six input fields at the top of the panel are used for viewing and editing curve values. The top row shows the incoming curve, which connects to the previous keyframe, while the bottom row shows the outgoing curve, which connects to the next keyframe.



The fields are updated when values are copied from keyframes, when a Style is chosen from the dropdown, or through any methods listed in the reference below.

EDITING VALUE FIELDS - BASIC:

- COPY: Select a position keyframe and click the blue copy button to accept the keyframe's curve values
- STYLE CHANGE: Select a new style from the dropdown (except "Custom")
- KEYBOARD SHORTCUTS: Use the Up and Down keys to increment values. Hold Shift to increment by 10 or Alt/Option to increment by 1/10th

EDITING VALUE FIELDS - ADVANCED:

- MANUAL: Manually type in the value you want.
- INVERT: Click Invert +/- to reverse a curve's direction.
- SWAP: Click Swap ↕ to switch the IN and OUT values on an axis.

KEYFRAMING

Updating Curves (Keyframes)

Curves are changed when position keyframe(s) are selected and you do one of the following:

UPDATING CURVES - BASIC:

- **STYLE CHANGE:** Choose a style from the Dropdown (applies a new preset value to selected Keyframe(s). "Custom" has no effect)
- **SLIDER:** Type in a new percentage or drag the slider (applies the specified 'amount' of what's in the fields to selected Keyframe(s) without updating the value fields)

UPDATING CURVES - ADVANCED:

- **PASTE:** Click Apply ✓ (applies the fields to selected Curve(s))
- **MINUS:** Click Minus — (subtracts the fields FROM selected Curve(s))
- **PLUS:** Click Plus + (adds the fields TO selected Curve(s))