

Pose2Pose

v1.1.0
Manual

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Introduction

Pose2Pose is an facial rigging system.

The *Slider Switch* and *Box Switch* are ideal for rigging mouths, eyes, eyebrows and so much more. Thanks to the included joystick, you can easily create 2.5D head rigs. While the advanced 'Perspective Poses' lets you combine the power of a Slider or Box Switch with a Joystick. Resulting in faces with extra dimension.

Adjust your poses after the fact with the *Unlink/Link* button. Make cutout animation easily with the *Asset Switcher*. Add properties to already existing controllers with the *Bind to Controller* functionality and control your rigs from other compositions with the *Control from Other Comp* functionality.

Easily label your poses with *Pose Names* and use *Stack Order* to switch the order of layers depending on the joysticks position. There are various tools to help you create symmetric paths and poses. As well as the path extractor to give you extra control.

Pose2Pose allows you to do all those things. This document serves as a tutorial, some things however are easier to understand with a video.

You can watch the official video tutorials here:

https://www.youtube.com/watch?v=hW85U3X959M&list=PLkk9Vs2va1J70VITBM1paHPTxMDzYpn_s

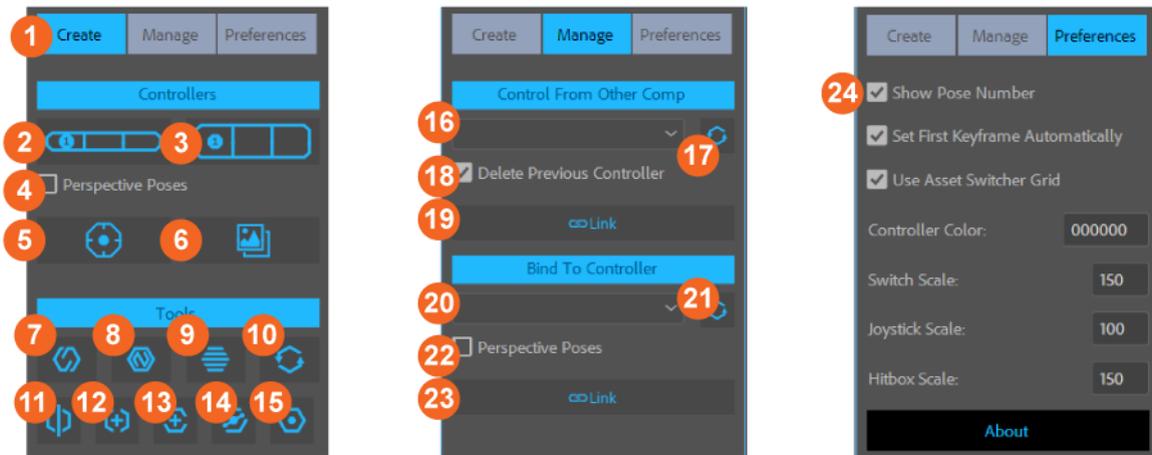
1.0 Installing/Updating Pose2Pose

1. Place the 'Pose2Pose.jsxbin' file in the ScriptUI Panels folder. Example of path:
C:\Program Files\Adobe\Adobe After Effects CC 2018\Support Files\Scripts\ScriptUI Panels.
2. Restart After Effects.
3. You are ready to use Pose2Pose. You can launch it by going to 'Windows' in the menu bar.

To update you can either replace the file or have multiple versions

2.0 Using Pose2Pose

Interface



1	Panel Menu	13	Mirror Complete Vertically
2	Slider Switch	14	Extract Paths
3	Box Switch	15	Toggle Extractor Visibility
4	Perspective Poses	16	Composition List
5	Joystick	17	Refresh List
6	Asset Switcher	18	Delete Previous Controller
7	Unlink/Relink	19	Link
8	Pose Names	20	Controller List
9	Stack Order	21	Refresh List
10	Update Paths	22	Perspective Poses
11	Mirror Horizontally	23	Bind to Controller
12	Mirror Complete Horizontally	24	Preferences

2.1 Controllers

Different controllers:

- *Slider Switch*: enables you to transition between any of your pre-made poses.
- *Box Switch* : gives you the control you need if you want to go from somewhere in between poses to somewhere in between poses.
- *Joystick*: lets you create 2.5D rigs.
- Asset Switcher: lets you switch between assets for *Cutout animation*
- Note: make sure the *Perspective Poses* option is disabled. this topic is covered in 2.2 Perspective Poses

1. **Start by preparing your poses.** Every property you use, should have the same amount of keyframes applied to them. The first keyframe has to be on the first frame of the composition and there can't be any empty spaces between the keyframes. For the *Joystick* the first pose is the center pose, the second pose is the up pose. From there on out the poses go clockwise.



Fig.1:Wrong example. There are gaps between the keyframes.

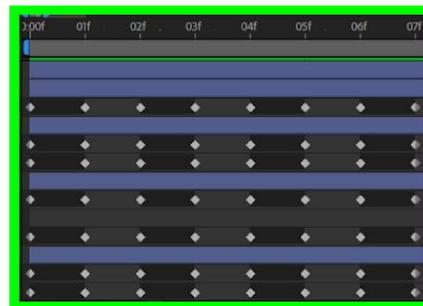


Fig. 2: Good example

2. **Select all the properties.** Make sure you don't select any other properties. (*tip: hold shift while dragging to select/deselect other properties.*)
3. **Create a *Slider Switch*, *Box Switch* or *Joystick*** by clicking their respective buttons. You can enable the *Show number* option if you would like to see the Pose-number. You can find this option in the *Preferences* panel. A prompt will appear asking you to name the controller. It is advised to use different names for different controllers.
4. **After clicking the *Slider/Box Switch* button the corresponding interface gets made.** The interface consists of the base and the head. The base can be scaled and moved. Use the *Slider-/Box-Head* to navigate to the desired pose. If you're using any version of Adobe After Effects between CS6 and CC 2017, you have to press the *Update Path* button to update the shape paths.

2.2 Asset Switcher

The *Asset Switcher* is a way to easily switch between assets. this is a great tool for when you want a *Cutout animation* style where the facial expressions switch suddenly without any transition.

1. Import the assets into the composition.
2. Select all the wanted layers.
3. Click the *Asset Switcher* button.
4. Use the slider to switch between assets.

Enable the *Asset Switcher Grid* option in the *Preferences* panel to create a grid interface.

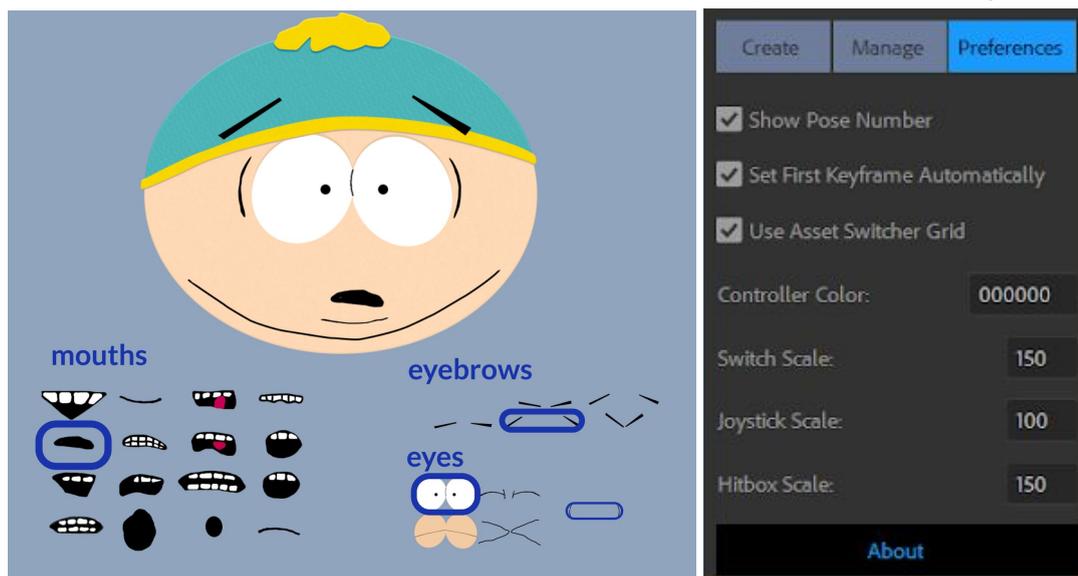


Fig.3: Example of Asset Switcher Grid being used to recreate an Eric Cartman Rig. This is just an example, Pose2Pose is not affiliated with South Park.

2.3 Perspective Poses

Perspective poses is using both a *Switch* and a *Joystick* to control the same properties. It's an advanced option that, when used correctly, can give great results.

To set up perspective poses you have to choose a start pose. This start pose will be both the beginning point for the switches as for the *Joystick*. If you have a shape that opens and closes, for example mouths and eyes. it is recommended to have the closed pose as your start pose.

The poses need to be set-up in the following order: Start Pose, Up, Right, Down, Left, Start Pose, Pose 2, Pose 3,...

After enabling the *Perspective Poses* option, you can click on the *Slider* or *Box Switch*. Select the properties again and click on the *Joystick* button. You can now use the controllers to control your face-rig.

2.4 Controlling your poses from within another composition

Sometimes you might want to set-up Pose2Pose in one composition, but control it from another composition. Here's how to achieve that:

1. Select the *Controller Head* from the controller you would like to move.
2. Navigate to the *Manage* panel.
3. Press the refresh-button (↻) next to the dropdown-menu in the *Control From Other Composition* section.
4. All the compositions other than the current one will appear in the dropdown menu.
5. If you want the previous controller to be removed, check the *Delete former* checkbox.
6. Click the *Link* button.

2.5 Bind to controller

If you've accidentally missed a property while setting up a rig, you are still able to control that property with the already existing controller.

1. Make sure the properties are set up properly.
2. Select the properties.
3. Navigate to the *Bind to controller* section on the *Manage* panel and refresh the list of controllers by hitting the appropriate button (↻). Only controllers from that composition appear.
4. Select the controller in the dropdown-menu.
5. Click the *Link* button.

2.6 Unlink/Relink Properties

If you want to change poses after you've already made a controller you can use the Unlink/Relink functionality. This works for: Slider Switches, Box Switches and Joysticks. It is not compatible with *perspective poses* and path properties in After Effects versions older than CC 2018. To use it, simply select the properties you want to adjust, click the button and adjust the poses. As soon as the poses are adjusted you can select the properties you changed and click the button again to re-link them.

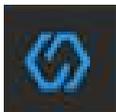


Fig.4: Unlink/Relink button

2.7 Mirror Path Horizontally-Tool

This tool allows the user to mirror any closed path horizontally.

For a path with n vertices (= points) it will change the x^{th} vertex into a horizontally mirrored version of the $n-x^{\text{th}}$ vertex. The effect of the tool depends heavily on which vertex is the first vertex.

2.8 Mirror Complete Horizontally/Vertically-Tool

This tool allows the user to make symmetrical shapes more easily and precisely. All you have to do is make one half of the shape and leave the path open. Make sure the first and last vertices are somewhat horizontally aligned. Click the *Mirror Complete Horizontally* button. Your shape will be completed. The *Mirror Complete Vertically* tool works in a similar fashion.

2.9 Pose Names

Pose numbers are great, but sometimes you would rather label your poses and see the name of the current pose. This is exactly what *Pose Names* does. To create *Pose names*, unlock and select the *Pose Numbers* layer, click the *Pose Names* button. A prompt will appear where you can input the names of the poses.

2.10 Stack Order

In case you need a layer to be before other layers and after those same layers depending on the position of your joystick you can use Stack Order. Select the layer and click the *Stack Order* button. Select the *Joystick* and the orientation *Left/Right* or *Up/Down*. The script will duplicate your layer and make one copy visible on one side of the *Joystick* and the other on the other side. You can then place one copy above and the other one below the other layers. One of the copies has a '©' symbol, indicating that this layer has a slider control. This slider offsets the imaginary border.

2.11 Path Extractor

This tool is very similar to the *Create Nulls From Paths* script provided with After Effects. The path extractor will create shape layers that control the points, intangents and outtangents of a selected path. You can now animate those elements individually. If you alt-click you can change the size of the controller layers.



Fig.5: Path Extractor

2.12 Toggle Extractor Visibility

The *Path Extractor* creates a lot of layers. Clicking this button will disable/enable the visibility of those elements. Alt-clicking will also shy all the shied layers.



Fig.6: Toggle Path Extractor Visibility

3.0 Preferences

In the *Preference* panel there are six settings you can change. These settings don't change already existing controllers, but are applied when controllers are created. *Preferences* are stored in the *Preferences* file.

- When **Show Pose Number** is enabled, anytime a switch is created an additional text layer gets made. This layer will indicate the current pose. The Layer is locked to prevent the user from accidentally selecting it when using the controller.
- If **Set First Keyframe Automatically** is enabled the controller head of *switches* and *Joysticks* will have a keyframed applied to them on the first frame of the composition.
- If you want to use the **Asset Switcher Grid** instead of the Asset Switcher slider, enable this option.
- **Controller Color** allows the user to change the color of switches and *Joysticks*. The input-field requires a hexadecimal value. The text-field accepts shorthand notation and the '#' sign can be used but is not required.
- **Switch Scale** changes the scale of the *Switches*.
- **Joystick Scale** changes the scale of the *Joysticks*.
- **Hitbox Scale** changes the scale of the area around the controller head which can be clicked to select and move it.

4.0 Additional info and tips

- It is good practice to give every rig a different name
- Please refrain from changing the expressions. Doing so might break them.
- Don't rename the controller elements. Some of the scripts functionality depends on the names of the controller elements.
- Pose2Pose is currently not compatible with the 'Mask Feather Tool'(Fig. 7). Standard mask feathering however is compatible as are all other properties.

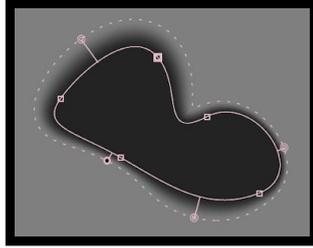


Fig. 7: Mask Feather Tool

- Roto-bezier Paths should always be converted to normal Bezier Paths before making the slider/box. (Select Path > Right-click> Mask and Shape Path> Rotobezier).

5.0 Support

Any bug-reports, questions and complaints can be send to pose2posescript@gmail.com. We will try to get back to you as soon as possible.

6.0 Update Log

Updates from 1.0.1 to 1.1.0:

- The Asset Switch Grid has been added.
- You can now easily adjust your poses after the controllers have already been made .with the Unlink/Link button.
- The *Path Extractor* has been added to the tools
- Pose2Pose has been rewritten to ensure easier updating for future releases.
- Fixed an issue where the pose number would get indented.
- The elements of a Box Switch now have a different names.
- Fixed an Asset Switcher bug that didn't allow assets where the width or height aren't integers

Updates from 1.0.0 to 1.0.1:

- Pose2Pose now works with all non-English versions of After Effects
- The Joystick in 1.0.0 was limited to the inside of the circle. This limitation was removed.
- The way that Pose2Pose interacts with position properties has changed to ensure parenting works better.
- Slight Joystick performance improvement
- Mirror Complete will now automatically align the last and first vertex.
- Mirror Complete will now automatically center the anchor point of the shape.

Acknowledgements

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