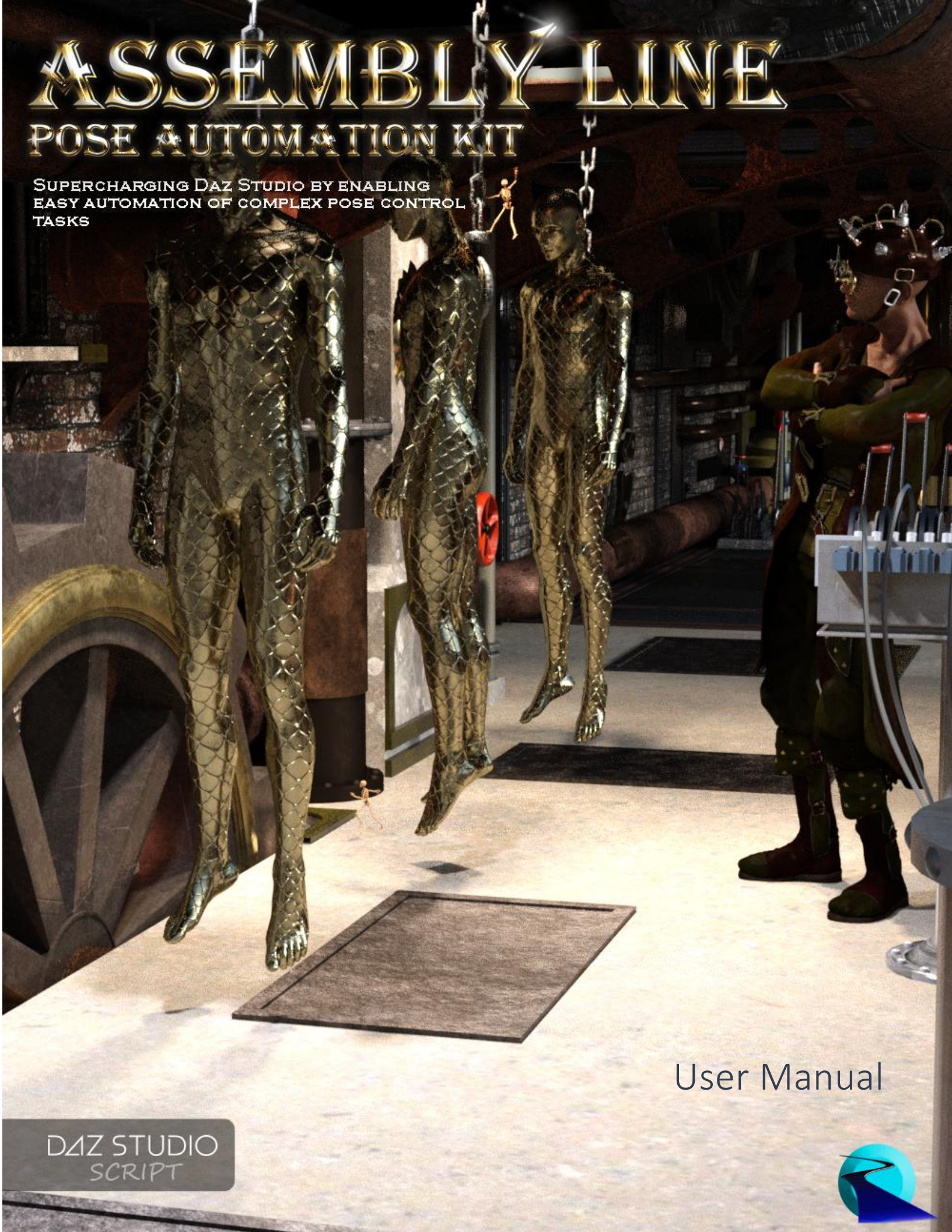


ASSEMBLY LINE

POSE AUTOMATION KIT

SUPERCHARGING DAZ STUDIO BY ENABLING
EASY AUTOMATION OF COMPLEX POSE CONTROL
TASKS



User Manual

DAZ STUDIO
SCRIPT



Assembly Line Pose Automation Kit User Manual

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Introduction

Do you create poses? Do you own a lot of poses? Then the Assembly Line Pose Automation Kit is for you! **Save time and money as with the click of a button, Assembly Line Pose Automation Kit can easily process your pose library to create mirror poses, top half poses, bottom half poses, hand poses, and more!** The Assembly Line Pose Automation Kit provides batch execution of pose actions to quickly and easily create new poses and pose presets in your library. Assembly Line supercharges Daz Studio by enabling easy automation of complex pose control tasks, and it is even more powerful if you own other RiverSoftArt scripting products like Bone Doctor, Pose Blender, or Pose Randomizer. Assembly Line allows you to chain actions and other RiverSoftArt scripts together to create superscripts, which are called Assembly Lines.

This user manual includes the following instructions:

- How to execute Assembly Lines to automate pose tasks
- How to create and edit Assembly Lines
- Descriptions of the included Built-in Assembly Line Presets
- Descriptions of the included assembly line Actions
- How To Guide for script writers to integrate their scripts with Assembly Line

Features

Assembly Line Pose Automation Kit provides:

- Powerful Automation of common posing tasks such as mirror poses (and saving them), saving hand poses from full poses, and saving Female Poses as Male poses (or vice versa, within the same generation only), **which can be applied to the current figure in your scene or to entire directories and lists of pose presets.**
- Create "Assembly Lines" using the Assembly Line Editor. Assembly Lines are a sequence of actions that can be executed and applied to an input figure or a series of pose presets. All Assembly Lines are easily editable. If they do something you don't like, or don't do enough, you can change them.
- 14 pre-built Assembly Lines for you to use or customize
- Integration with RiverSoft Art scripting products, such as Bone Doctor, Eye Clock, Dragon Master Pose Control, Pose Blender and Pose Randomizer, so that you can automate posing using those products. **If you own Bone Doctor, you can automate conversion of your library of Genesis 3 poses to Genesis 8, or vice versa.**
- Over 30 powerful actions such as Apply Preset File, Mirror Pose, Select Body Parts, and Save Pose Preset
- Includes a very easy to use Save Pose Preset script which you can use by itself to eliminate the tedious clicking required to save poses.
- Save Assembly Lines as presets that will automatically load and be ready to execute
- Extend Assembly Line Automation Kit by creating your own Action scripts that can be

Assembly Line Pose Automation Kit is easily the most ambitious product I have ever made for Daz Studio. It is incredibly powerful and will save you hours and hours of effort. Thank you very much for purchasing the product!

RiverSoft Art

integrated seamlessly (Recommended for Script writers only)

With the Assembly Line Automation Kit, you can:

- Convert a folder of pose presets from Genesis 3 Female to Genesis 3 Male with new icons and categories (Assembly Line Included). Alternatively, you can quickly just update the metadata in the Daz Studio database to mark existing presets as compatible with other figures (Assembly Line Included)
- Convert a batch of hand pose presets from Genesis 3 to Genesis 8 (Assembly Line Included)
- Create mirror poses for a folder of poses in seconds (Assembly Line Included)
- Fix poses which have incorrectly applied transformations to the figure by moving the transformations to the hip (Assembly Line Included)
- Quickly create top-half or bottom-half poses from a folder of poses (Assembly Line Included)
- Add or Delete Categories from a folder of presets, leaving other categories unchanged
- Convert an entire folder of pose presets from Genesis 3 to Genesis 8, or vice versa (Requires Bone Doctor) (Assembly Line Included)
- Create new poses by combining a folder of pose presets with a specific leg pose (or arm pose) (Requires Pose Blender) (Assembly Line Included)
- Automate common setup of figure (e.g., add the same hair, makeup, clothes, and pose) (Example Assembly Line Included)

*By itself, Assembly Line Pose Automation Kit cannot convert **full** poses between generations of figures (e.g., convert a Genesis 2 pose to a Genesis 3 Pose). If you own Bone Doctor, you can convert full poses between Genesis 3 and Genesis 8. Poses that use the same bone names, such as hand poses from Genesis 2 to Genesis 8, can be created and no conversion is needed.*

TIP: It is recommended that you make the Assembly Line Editor a custom action (Right-click icon and "Create Custom Action"). **If you select presets in the Content Library pane and start the Assembly Line Editor action, the presets can be automatically added to the preset list.**

Assembly Line Pose Automation Kit creates normal poses only; hierarchical poses will be converted to normal poses.

No poses are included with package.

How to execute Assembly Lines to automate pose tasks

Assembly Line Automation Kit is generally very easy to use. There are 10 pre-built Assembly Lines saved as presets, that you can just double-click and then execute. There is also a powerful Assembly Line Editor for building your own assembly lines.

To use a Assembly Line Automation Kit script:

1. Select a posed character or figure.
2. Double-click the Assembly Line Preset script, or a built-in Assembly Line Preset script, to start.
3. Configure Input options (Input Tab). Select whether the Assembly Line applies to the Current Figure or an entire list of files.
4. To add a list of files, use the "Add Files" or "Add Directory" buttons to select pose presets from your library. Only files with a checkbox are used during execution. If you use the Add Directory button, it will include all .duf files in that directory and every subdirectory. **It is recommended to remove non-pose presets (materials, props, etc).**
5. Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
6. If you started the Assembly Line Editor, you can load or edit the Assembly Line you want to use. The Built-in Presets tab lists all the assembly lines included with the product, including examples. The actual Assembly Line files (.asl) are located in Data/RiverSoft Art/Data. Click on an Assembly Line to have it loaded into the editor. **To create and edit Assembly Lines, see the next section.**
7. When you are ready, click the "Execute" button to execute the Assembly Line on your current figure or your list of presets. The Log tab includes a detailed log of the executed assembly. When an input preset is successfully modified by the Assembly Line, the editor will uncheck that preset.

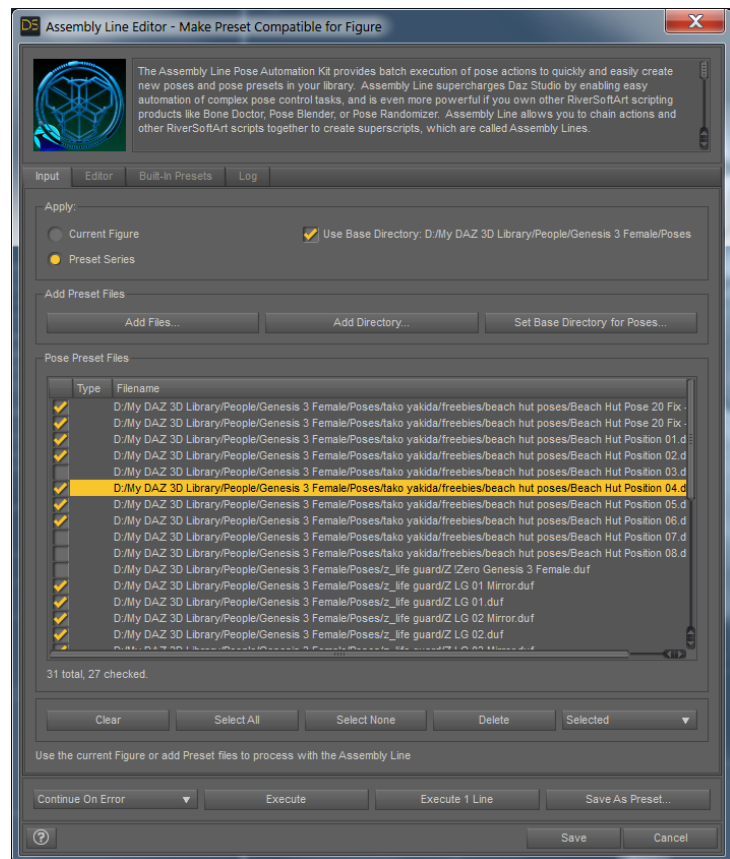


Figure 1 - Apply Assembly Lines to the current figure or an entire list of files

WARNING: The Assembly Line Editor will overwrite files when it saves poses. When the Assembly Line asks for a save pose directory, it is **HIGHLY recommended that you select an empty directory.**

Note that every button and every slider has a tooltip. If you get stuck, hover over a button to see information about it.

The "Use Base Directory" checkbox and the "Set Base Directory for Poses..." button work together to define a **base directory** when you have added many preset files. **The Base Directory is used to allow you to preserve the structure of poses** under the Base Directory. For example, say the Base Directory is "C:/My Daz 3D Library/People/Genesis 3 Female/Poses" and you have three pose preset files added:

1. C:/My Daz 3D Library/People/Genesis 3 Female/Poses/Dream Product/My Pose 1.duf
2. C:/My Daz 3D Library/People/Genesis 3 Female/Poses/Volleyball/My Pose 2.duf
3. C:/My Daz 3D Library/People/Genesis 3 Female/Poses/Cool Pose Product/My Pose 3.duf

If you execute an Assembly Line that contains the Save Pose Preset action and its directory has been defined to be "C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses", each of the poses will be saved as:

1. C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses/Dream Product/My Pose 1.duf
2. C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses/Volleyball/My Pose 2.duf
3. C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses/Cool Pose Product/My Pose 3.duf

If the "Use Base Directory" checkbox is not checked, the files would be saved as:

1. C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses/My Pose 1.duf
2. C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses/ My Pose 2.duf
3. C:/Users/USERNAME/Documents/DAZ 3D/Studio/My Library/People/Genesis 8 Female/Poses/ My Pose 3.duf

TIP: It is recommended that you use the "Ask For Save Pose Directory (once)" action in scripts. When you are asked for an output directory, select an EMPTY directory. Assembly Line does not check if you are overwriting pose presets when it saves files.

Also, it is recommended to delete, move, or copy your generated pose presets from within Daz Studio. That way, Daz can keep the metadata synchronized with your

How to create and edit Assembly Lines

Assembly Line Editor tries to make it as easy as possible to create assembly line scripts. The Editor tab displays the current assembly line. At the top, a description of the assembly line is displayed for what the assembly line does. In the middle, the actual assembly line is displayed and can be edited.

The Assembly Line Editor displays the entire assembly line in a grid, where each row equals one action in the assembly line. The first column displays the line count, the second column displays the action name, and the third column displays any parameters that are input to the action. When an assembly line is executed, each line is executed in order for each input preset.

To add actions to an Assembly Line:

- Select the action you want to add from the combo box (the "Apply Preset File" button in the figure).
- Click the "Add" button to add the action to the end of the assembly line. Click the "Insert" button to add the action just before the currently selected line in the assembly line.
- If the Action has parameters, its dialog will be displayed. This Action dialog can be as simple as a Select Directory dialog to a full blown dialog from one of RiverSoft Art's products. The important thing to realize is that **the dialog will not do anything at this point**. In the figure, the Pose Blender dialog is displayed. Changing sliders, clicking Preview, will not actually apply a blend and nothing will change in your scene.

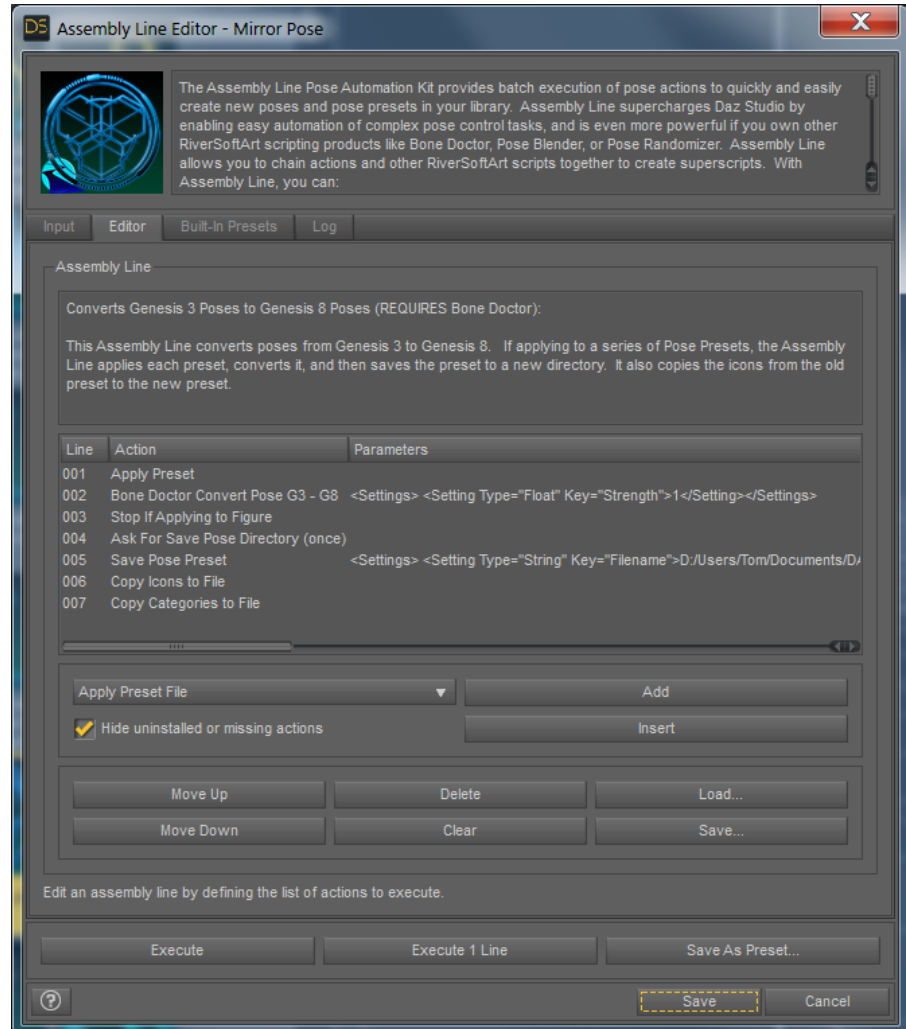


Figure 2 - The Assembly Line Editor allows you to add, delete, and reorder actions, and edit action parameters

- When you are satisfied with the parameters in the Action dialog, click Accept or Ok. The action and its current parameters will be added to the assembly line. If you click Cancel, the action will not be added to the Assembly Line.

To edit an Assembly Line:

- Select an action in the Assembly Line you want to change.
- Double Click on the action to display its Action dialog. If the action does not accept any parameters, an information dialog about the action will be displayed.
- To move an action earlier in the Assembly Line, click the "Move Up" button. To move an action later in the Assembly Line, click the "Move Down" button.
- To delete actions, click the "Delete" button.
- To clear the entire Assembly Line, including its description, click the "Clear" button and confirm you want to clear the assembly line.

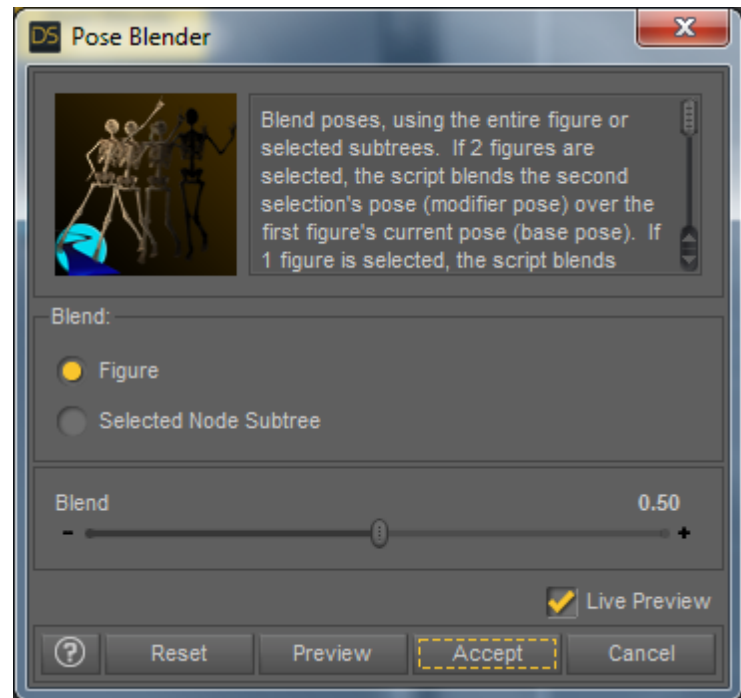


Figure 3 - Pose Blender Dialog is displayed when adding or editing a Pose Blender action. You cannot actually change the figure at this point; it just saves settings.

At this point, your Assembly Line has been created, but nothing has actually been saved and changes can be lost. If you click the Assembly Line Editor "Save" button (right), your work will be saved until the next time you start the Assembly Line Editor. This button also saves the input options. Similarly, clicking "Cancel" discards your changes.

To save and load Assembly Lines:

- To save the Assembly Line to disk, click the "Save..." button to save the Assembly Line. Assembly Lines saved this way can only be executed by reloading the assembly line later. The Save button **only saves the Assembly Line**, and none of the other options in the Assembly Line Editor.
- To load a previously saved Assembly Line, click the "Load..." button to load it. Loading an Assembly Line will not change any of the other options in the Assembly Line Editor dialog.
- You can also save the Assembly Line as a Daz Studio preset. Click the "Save As Preset..." button to save the Assembly Line as a preset. A script preset will be created with a default Assembly Line icon. Double-clicking on this preset starts the Assembly Line Editor and automatically loads the saved Assembly Line. Click Execute to execute the Assembly Line. **The "Load..." button cannot load an assembly line that has been saved as a preset.**

Tips for Creating Assembly Lines

The following are some general tips for creating your own Assembly Lines.

- Study the pre-built Assembly Lines. Consider using one of the pre-built assembly lines as a base for your Assembly Line.
- If you are building an Assembly Line to work with lots of preset files, use the Zero Figure Pose action to reset the figure between each execution. This can help you avoid "contamination" from earlier poses into later poses.
- Use the "Ask for Save Pose Directory (once)" action! You should avoid "hard coding" directories into your Assembly Line and should ask for each execution.

Built-in Assembly Line Presets

Assembly Line Pose Automation Kit provides a large number of pre-built assembly lines to automate your posing needs.

To see **all** assembly lines provided with the product, start the Assembly Line Editor and select the Built-In Presets tab. This tab displays all assembly lines (*.asl files) included with the product in the Data/RiverSoft Art/Data folder, including examples. Click on an Assembly Line to have the script loaded into the Editor tab of the Assembly Line Editor. You can then edit and execute this assembly line as detailed in the previous sections.

A select number of pre-built assembly lines have been saved as presets. These presets are included in the same location as the Assembly Line Editor. To use these presets, select a figure and double-click on the preset. The Assembly Line Editor will start with the preset preloaded and ready for execution. The following Assembly Line presets are included with the product:

- Assembly Line Blend Pose Presets With Current Pose **(Requires Pose Blender)**
- Assembly Line Create Pose from G3 to G8 **(Requires Bone Doctor)**
- Assembly Line Create Pose from G8 to G3 **(Requires Bone Doctor)**
- Assembly Line Copy Left Hand to Right Hand
- Assembly Line Copy Right Hand to Left Hand
- Assembly Line Create Bottom Half Poses
- Assembly Line Create Top Half Poses
- Assembly Line Create Hand Poses
- Assembly Line Create In-Situ Poses
- Assembly Line Create Poses for Figure Type
- Assembly Line Make Preset Compatible for Figure
- Assembly Line Mirror Pose
- Assembly Line Move Figure Transformations To Hip



Figure 4 - The Built-In Presets tab includes all Assembly Lines shipped with the Assembly Line Automation Kit.

Assembly Line Blend Pose Presets with Current Pose

This assembly line creates new poses by blending the current pose for the figure with the list of pose presets.. **This Assembly Line requires that Pose Blender is installed**, as it uses the Selective Pose Blender script to do the blending. The assembly line applies the input pose preset, blends with the current pose, and then saves the blended pose with icon. It copies the categories from the input pose preset to the new pose. **This Assembly Line only saves the bones; if the pose includes property editor values, they will not be saved.**



Before using this Assembly Line, you should double-click on the Selective Pose Blender and set the settings to how you like it. Currently, the Selective Pose Blender action is set up to blend in the top half of the input preset to the current pose in the scene.

To use this assembly line,

- Add a figure to your scene.
- Pose the figure
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses you want to blend.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your blended poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, blending the new pose with the pose from the scene (using Pose Blender), and then saving the blended pose. Finally, it copies the categories from the input pose preset to the blended pose.
- *Note that the Assembly Line memorizes the figure pose in order to be able to restore the pose after processing each pose preset. It is recommended that you do not save the scene afterwards.*

Some adjustments may be required on the new poses.

Assembly Line Create Pose from G3 to G8

This assembly line converts poses from Genesis 3, Male or Female, to Genesis 8. **This Assembly Line requires that Bone Doctor Pose Control is installed**, as it uses the Bone Doctor conversion scripts to do the conversion. This assembly line can do cross-gender conversion, i.e., convert a Genesis 3 Female pose to a Genesis 8 Male pose. **This Assembly Line only saves the bones; if the pose includes property editor values, they will not be converted.**



To use this assembly line,

- Add a Genesis 8 figure to your scene.
- Select the figure and start the Assembly Line Preset

- Add Files or Add Directory in the Input tab to add the input poses you want to convert.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your converted poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, converting them from Genesis 3 to Genesis 8 (using Bone Doctor), and then saves the new pose.
- If an input pose preset is a partial pose, the conversion is skipped and no new pose preset will be written

Some adjustments may be required on the new poses.

Assembly Line Create Pose from G8 to G3

This assembly line converts poses from Genesis 8, Male or Female, to Genesis 3. **This Assembly Line requires that Bone Doctor Pose Control is installed**, as it uses the Bone Doctor conversion scripts to do the conversion. This assembly line can do cross-gender conversion, i.e., convert a Genesis 8 Female pose to a Genesis 3 Male pose. **This Assembly Line only saves the bones; if the pose includes property editor values, they will not be converted.**



To use this assembly line,

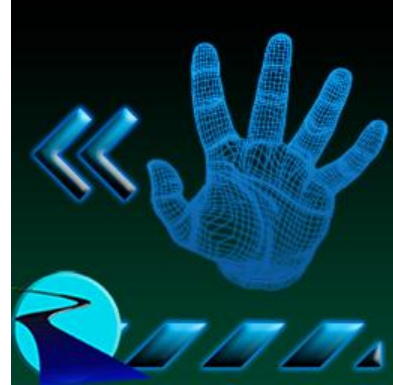
- Add a Genesis 8 figure to your scene.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses you want to convert.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your converted poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, converting them from Genesis 3 to Genesis 8 (using Bone Doctor), and then saves the new pose.
- If an input pose preset is a partial pose, the conversion is skipped and no new pose preset will be written

Some adjustments may be required on the new poses.

Assembly Line Copy Left Hand to Right Hand

This Assembly Line copies a series of Left Hand Poses to the Right Hand and saves the poses. **The Assembly Line only copies the bones; if the pose includes hand property editor values (e.g., pose controls such as Left Index Finger Bend), they will not be copied.**

The Assembly Line applies each preset, copies the left hand to the right hand, and then saves the pose preset to a new directory. The Assembly Line also copies the categories from the old pose to the new pose, changing the By Region category from Full pose to Partial Body pose.



Note that this Assembly Line can save hand poses across generations if the hand bones are named the same and the hands start at the same resting pose, such as between Genesis 2, Genesis 3, and Genesis 8.

You can use any input pose from Genesis 2, 3, or 8, and generate poses for a new figure.

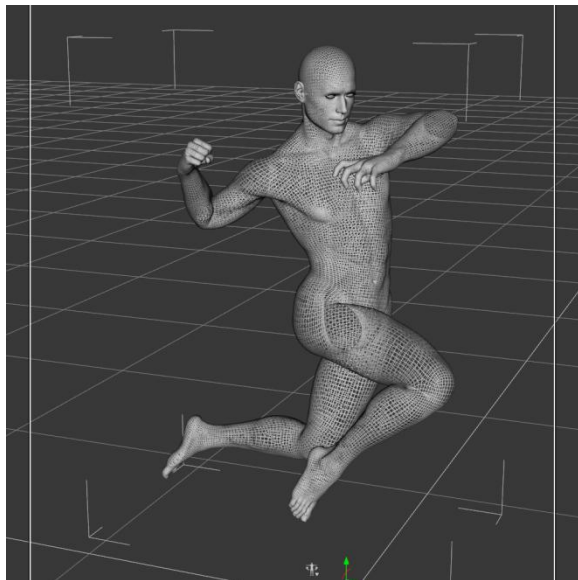


Figure 5 - Original Pose

To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female hand poses, add a Genesis 3 Female. If you want to create Genesis 8 Male hand poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.

- Select the figure and start the Assembly Line Preset

- Add Files or Add Directory in the Input tab to add the input poses that have left hand poses you want to copy and save for the right hand.

- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your copied poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, mirroring the left hand pose to the right hand, framing

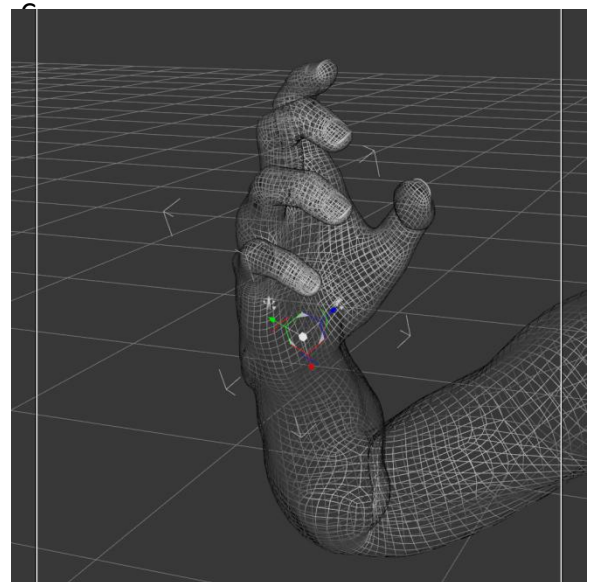


Figure 6 - Left Hand Copied to Right Hand, and framed by camera for the icon

the camera on the right hand (for the icon), and then saving the right hand pose.

Assembly Line Copy Right Hand to Left Hand

This Assembly Line copies a series of Right Hand Poses to the Left Hand and saves the poses. **The Assembly Line only copies the bones; if the pose includes hand property editor values (e.g., pose controls such as Right Index Finger Bend), they will not be copied.** The Assembly Line applies each preset, copies the right hand to the left hand, and then saves the pose preset to a new directory. The Assembly Line also copies the categories from the old pose to the new pose, changing the By Region category from Full pose to Partial Body pose.



Note that this Assembly Line can save hand poses across generations if the hand bones are named the same and the hands start at the same resting pose, such as between Genesis 2, Genesis 3, and Genesis 8. You can use any input pose from Genesis 2, 3, or 8, and generate poses for a new figure.

To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female hand poses, add a Genesis 3 Female. If you want to create Genesis 8 Male hand poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have right hand poses you want to copy and save for the left hand.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your copied poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, mirroring the right hand pose to the left hand, framing the camera on the left hand (for the icon), and then saving the left hand pose.

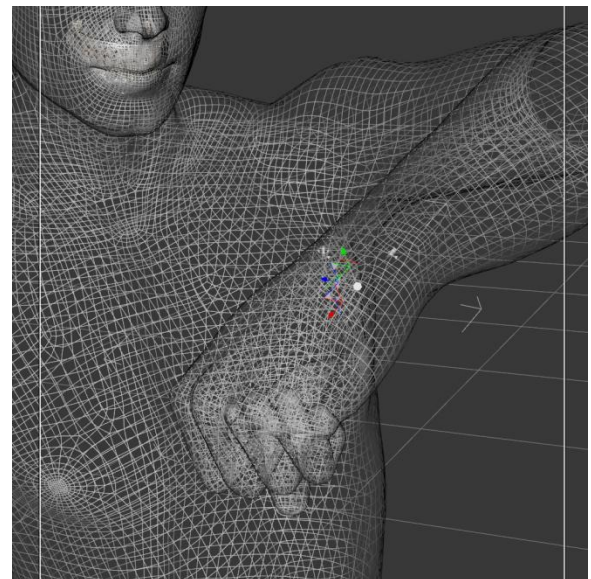


Figure 7 - Right Hand copied to Left Hand, and framed by camera for icon

Assembly Line Create Bottom Half Poses

This Assembly Line creates lower body poses from a series of poses. The Assembly Line applies each preset and then saves the lower body pose to a new directory. It copies the icons from the old pose to the new pose. The Assembly Line also copies the categories from the old pose to the new pose, changing the By Region category from Full pose to Partial Body pose.

Note that this Assembly Line does not perform any conversion between generations of figures, e.g., Genesis 3 Female to Genesis 8

Female. If you own Bone Doctor, you can add the conversion as an action to this Assembly Line.

To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female lower body poses, add a Genesis 3 Female. If you want to create Genesis 8 Male lower body poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have poses you want to copy and save their lower body. **You should use poses that are compatible with the selected figure.**
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your saved poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, and then saving the lower body as a pose. It copies the icons and categories from the old pose to the new pose, changing the By Region category

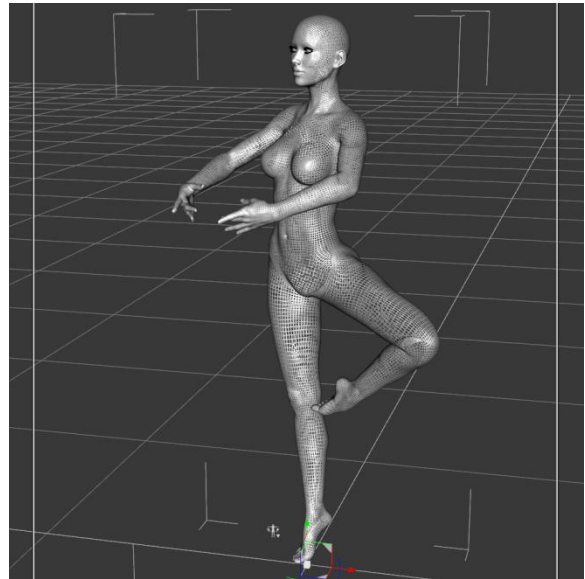
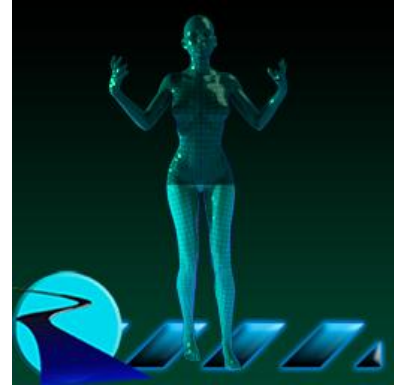


Figure 8 - Original Pose

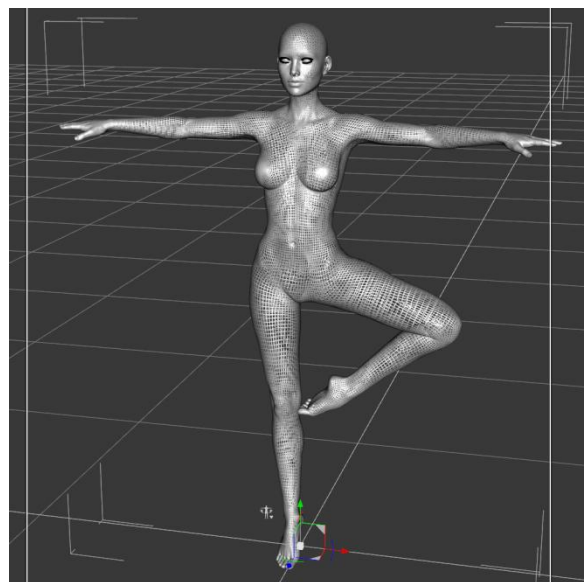


Figure 9 - Default T Pose with New Bottom Half Pose Applied

from Full pose to Partial Body pose.

Assembly Line Create Top Half Poses

This Assembly Line creates upper body poses from a series of poses. The Assembly Line applies each preset and then saves the upper body pose to a new directory. It copies the icons from the old pose to the new pose. The Assembly Line also copies the categories from the old pose to the new pose, changing the By Region category from Full pose to Partial Body pose.

Note that this Assembly Line does not perform any conversion between generations of figures, e.g., Genesis 3 Female to Genesis 8 Female. If you own Bone Doctor, you can add the conversion as an action to this Assembly Line.



To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female upper body poses, add a Genesis 3 Female. If you want to create Genesis 8 Male upper body poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have poses you want to copy and save their upper body. **You should use poses that are compatible with the selected figure.**
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your saved poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, and then saving the upper body as a pose. It copies the icons and categories from the old pose to the new pose, changing the By Region category from Full pose to Partial Body pose.

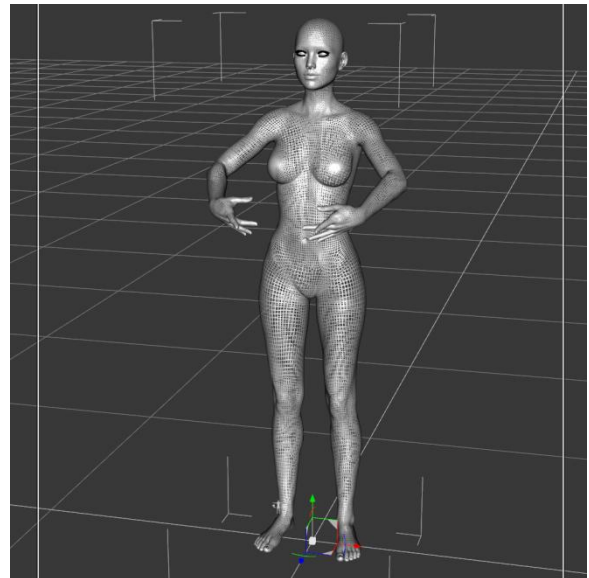


Figure 10 - Default T Pose with New Top Half Pose Applied

Assembly Line Create Hand Poses

This Assembly Line creates hand poses from a series of full poses. This Assembly Line asks for Save Pose Directory twice (once for each hand). The Assembly Line applies each preset, and then saves two pose presets to a new directory. The name of the new poses is the old pose name with "Left Hand" appended for the left hand, and "Right Hand" appended for the right hand. The Assembly Line also copies the categories from the old pose to the two new poses, changing the By Region category from Full pose to Partial Body pose.



*Note that this Assembly Line can save hand poses across generations if the hand bones are named the same and the hands start at the same resting pose (**however, hand pose properties will not be saved**), such as between Genesis 2, Genesis 3, and Genesis 8. You can use any input pose from Genesis 2, 3, or 8, and generate poses for a new figure. You can also create cross-gender poses (Female to Male, Male to Female) within the same figure generation.*

To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female hand poses, add a Genesis 3 Female. If you want to create Genesis 8 Male hand poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have hand poses you want to copy and save.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- The Select Directory dialog will come up **twice**; once for the left hand and once for the right hand. Specify the output directories for your copied poses. You only need to do these two directories once per execution.
- The assembly line works by taking each of the input pose presets, applying them, framing the camera on the left hand (for the icon), and then saving the left hand pose. Then, it frames the camera on the right hand and saves the right hand pose.

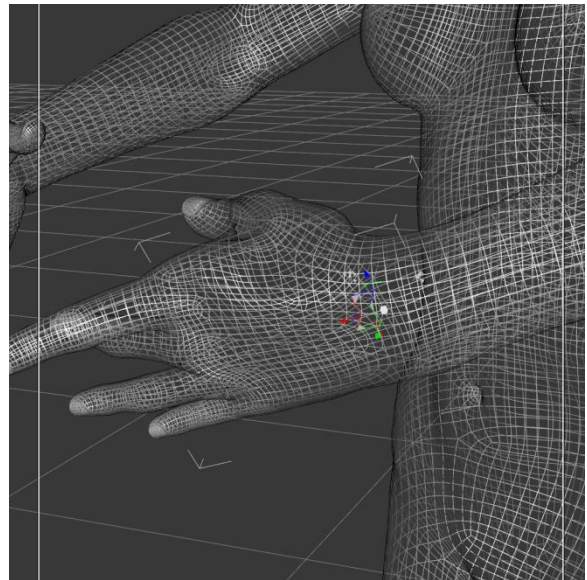


Figure 11 - The Assembly Line frames the hands with the camera to create icons for the new hand poses

Assembly Line Create In-Situ Poses

This Assembly Line creates copies of poses where the pose is loaded in-situ (in its current position) instead of moving the pose. This assembly line addresses poses that like to move the figure from its current position when the pose is loaded. It creates a copy of the pose with the figure transformations zeroed out and appends "In-Situ" to the name of the pose. If applying to a series of Pose Presets, the Assembly Line applies each pose preset, fixes the pose, and then saves the preset to a new directory. It also copies the icons and categories from the old preset to the new preset.

To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female poses, add a Genesis 3 Female. If you want to create Genesis 8 Male poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have poses you want to fix and save. **You should use poses that are compatible with the selected figure.**
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your saved poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, zeroing out the figure transformations and then saving the pose. Finally, it copies the icons and categories from the old pose to the new pose.



Assembly Line Create Poses For Figure Type

This Assembly Line creates a series of new pose presets that apply to the figure type of the currently selected figure. For example, if the currently selected figure is a Genesis 3 MALE and the pose presets are for Genesis 3 FEMALE, this Assembly Line will apply the poses and create poses with metadata for the Genesis 3 Male. The Assembly Line applies each preset, and then saves the new pose presets to a new directory, using a rendered icon. The Assembly Line also copies the categories from the old pose to the new pose.

If you just want to update the metadata for existing presets so that they are marked compatible with a figure (i.e., so they show up in Smart Content), use the Make Preset Compatible for Figure Assembly Line.



Note that this Assembly Line does not perform any conversion between generations of figures, e.g., Genesis 3 Female to Genesis 8 Female. However, you can create cross-gender poses (Female to Male, Male to Female) within the same figure generation.

To use this assembly line,

- Add a figure to your scene. If you want to create Genesis 3 Female poses, add a Genesis 3 Female. If you want to create Genesis 8 Male poses, add a Genesis 8 Male. The figure you use determines the figure compatibility for the newly saved poses.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have poses you want to copy and save for the new figure type. **You should use poses that are compatible with the selected figure. However, you can use different gender poses within the same figure generation.**
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your saved poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, and then saving the pose. It renders a new icon for the preset. It also copies the categories from the old pose to the new pose.

Some adjustments may be required on the new poses.

Assembly Line Make Preset Compatible for Figure

This Assembly Line updates the metadata for existing presets so that they are marked compatible with a figure (i.e., so they show up in Smart Content). This is a great and fast way to use Genesis 3 Female Poses with Genesis 8 Male, or vice versa. No new files are created or converted. The Daz Studio database is just updated.

Note that the presets are still compatible with all the figures they were originally. They have just been marked as being compatible with the new figure as well.

To use this assembly line,

- Add a figure to your scene. If you want to make pose presets compatible with Genesis 3 Female, add a Genesis 3 Female. If you want to make pose presets compatible with Genesis 8 Male, add a Genesis 8 Male. The figure you use determines the figure compatibility.
- Select the figure and start the Assembly Line Preset



- Add Files or Add Directory in the Input tab to add the pose presets you want to make compatible with the figure. **You should use poses that are work with the selected figure; it is recommended you try a few tests first.**
- Execute the script
- The assembly line works by taking each of the input pose presets, applying them, and then making them compatible with the figure.

Since pose presets are not adjusted or converted, they may not work on the new figure without adjustment.

Assembly Line Mirror Pose

This Assembly Line creates mirror poses from a series of poses. **The Assembly Line only mirrors the bones; if the pose includes property editor changes (e.g., pose controls such as Right Index Finger Bend), they will not be mirrored.** The Assembly Line applies each preset, mirrors the pose, and then saves the preset to a new directory. It also copies the categories from the old poses to the new poses.



To use this assembly line,

- Add a figure to your scene.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have poses you want to mirror and save.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your saved poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, applying them, framing the camera on the figure (for the icon), and then saving the new pose. Finally, it copies the categories from the old pose to the new pose.

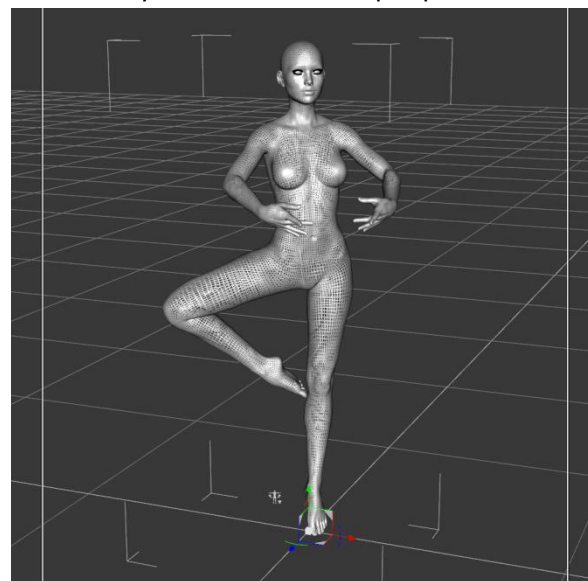


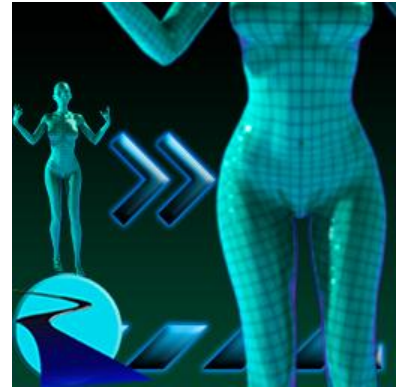
Figure 12 - New Mirrored Pose

Assembly Line Move Figure Transformations to Hip

This Assembly Line fixes poses which have transformations on the Figure itself by moving the transformations to the hip. It also copies the icons and categories from the old preset to the new preset.

To use this assembly line,

- Add a figure to your scene.
- Select the figure and start the Assembly Line Preset
- Add Files or Add Directory in the Input tab to add the input poses that have poses you want to fix.
- Check the "Use Base Directory" checkbox and use the "Set Base Directory for Poses..." button to define a base directory if you want to preserve the directory structure of the input poses with your new poses.
- Execute the script
- When the Select Directory dialog comes up, specify the output directory for your saved poses. You only need to do this once per execution.
- The assembly line works by taking each of the input pose presets, copying the figure transformations to the hip bone and then zeroing out the figure transformations. Then, it saves the new pose. Finally, it copies the icons and categories from the old pose to the new pose.



Action Reference

Assembly Line Pose Automation Kit provides over 30 powerful built-in actions such as Apply Preset File, Mirror Pose, Select Body Parts, and Save Pose Preset. This is in addition to the actions that are added when you own other RiverSoft Art scripting products, such as Bone Doctor, Eye Clock, Pose Blender and Pose Randomizer. The built-in actions allow you to automate common posing tasks such as mirror poses (and saving them), saving hand poses from full poses, and saving Female Poses as Male poses (or vice versa, within the same generation only). This section details the built-in actions.

Action	Description	Parameters
Apply Preset	Apply the currently selected preset from the input series. This action is required to actually apply a preset from the input series.	
Apply Preset File	Apply a preset. This action does not use the input preset list.	Filename
Ask For Filename (once)	Ask for Filename. This action asks the user for a filename when the Assembly Line is run. It replaces the next action that has a Filename parameter, such as Save Pose Preset or Apply Preset File. It is executed only once per run no matter how many input presets are selected.	Filename
Ask For Save Pose Directory (once)	Ask for Directory for the Save Pose Preset action. This action asks the user for a directory when the Assembly Line is run. It replaces the next Save Pose Preset action. It is executed only once per run no matter how many input presets are selected.	Directory
Camera Frame Figure	Moves the camera to frame the figure	
Camera Frame Selected	Moves the camera to frame the selected item(s)	
Copy Categories to File	Copy the categories from the currently selected preset to the last preset created by the Save Pose Preset action.	
Copy Icons to File	Copy the icons (*.png, *.tip.png) from the currently selected preset to the last preset created by the Save Pose Preset action.	
Copy Transformations	Copies the (XYZ translate, rotate, scale) transformations for one item, the first selected item. The saved transformations are stored in a location that the Paste Transformations action can retrieve. This action is useful for copying one transformation and applying it to many	Transformations to Copy

	items.	
Drop to Floor	Drop (or raise) the currently selected figure to the floor	
Make Compatible for Figure	Make the preset compatible with the figure. Note that this changes the metadata for the preset, but does not actually change the preset itself.	
Make Incompatible for Figure	Make the preset incompatible with the figure. Note that this changes the metadata for the preset, but does not actually change the preset itself.	
Memorize Figure	Memorize parameter settings for the figure. The parameter settings can be restored using the Restore XXX actions.	
Memorize Figure Pose	Memorize the current pose settings for the selected figure. The pose settings can be restored using the Restore XXX Pose actions.	
Memorize Figure Shape	Memorize the current morph settings for the selected figure. The morph settings can be restored using the Restore XXX Shape actions.	
Memorize Selected Item(s)	Memorize all of the parameter settings for all selected items. The parameter settings can be restored using the Restore XXX actions.	
Memorize Selected Item(s) Pose	Memorize the selected item(s) pose properties. The parameter settings can be restored using the Restore XXX Pose actions.	
Memorize Selected Item(s) Shape	Memorize the selected item(s) shape properties. The morph settings can be restored using the Restore XXX Shape actions.	
Mirror Pose	Mirror the pose	
Mirror Selected	Mirror Selected Items	
Modify Categories	Allows you to add, delete, or entirely replace USER categories for a preset file. Categories set by the vendor or Daz cannot be affected.	Action to take: Add, Delete, Replace Categories to Add, Delete, or Replace
Modify Filename	Modify a filename. You can append, prepend, or replace text in the filename. Use this action to modify the filename to reflect the Assembly Line intent, e.g., append Right Hand to the input preset name to show that the new preset is for the right hand. The modified filename will	Filename Action: Append, Prepend, Replace Pattern Text (for replace) Text

	be used by the Save Pose Preset action	
Paste Transformations	Pastes the selected transformations (XYZ translate, rotate, scale), copied by the Copy Transformations Action, to the selected nodes. This action and the Copy Transformations action are useful for copying one transformation and applying it to many items.	Transformations to Paste
Redo	Redo last redoable operation	
Restore Figure	Restore the memorized settings for the figure. If no settings have been memorized, then nothing will happen.	
Restore Figure Pose	Restore the memorized pose settings for the figure. If no settings have been memorized, then nothing will happen.	
Restore Figure Shape	Restore the memorized morph settings for the figure. If no settings have been memorized, then nothing will happen.	
Restore Selected Item(s)	Restore the memorized settings for the selected items. If no settings have been memorized, then nothing will happen.	
Restore Selected Item(s) Pose	Restore the selected item(s) pose properties. If no settings have been memorized, then nothing will happen.	
Restore Selected Item(s) Shape	Restore the selected item(s) shape properties. If no settings have been memorized, then nothing will happen.	
Restore Transformations	Save selected (XYZ translate, rotate, scale) transformations for the selected nodes. The saved transformations are stored in a location that the Restore Transformations action can retrieve	Transformations to Restore
Save Pose Preset	Saves Poses and Pose Controls to a file using a simplified dialog. You can save the figure, body parts, selected item(s), and/or expressions with just a couple clicks.	Filename Parts to Save Save Pose Controls Yes/No
Save Transformations	Save selected (XYZ translate, rotate, scale) transformations for the selected nodes. Unlike the Copy Transformations action, this action saves the transformations for ALL the selected items. The saved transformations are stored in a location that the Restore Transformations action can retrieve	Transformations to Save
Select Body Parts	Select Body Parts of the figure.	Body Parts
Select Figure	Select the figure	

Stop If Applying to Figure	Stop Assembly Line execution if it is being applied to a figure. This action is useful for writing an Assembly Line that can be used on the Current Figure (everything before this action) and a list of presets (plus everything after this action)	
Stop If Applying to Series	Stop Assembly Line execution (for this pose preset) if it is being applied to a series	
Stop If Partial Pose	Stop Assembly line execution if the current pose is a partial pose. This action stops the execution of the Assembly Line on the current input preset if it is a partial pose. The action examines the reported categories of the preset to see if it includes the Partial Body category . If the Partial Body category is found, the rest of the Assembly Line is skipped.	
Symmetric Pose	Acts just like the Symmetry Tool in Daz Studio.	Symmetry Options
Undo	Undo last undoable operation	
Zero Figure	Zeroes (clears) pose and shape for the entire figure	
Zero Figure Pose	Zeroes (clears) transformations for the entire figure so that it is back at initial pose	
Zero Figure Shape	Zeroes (clears) figure morphs for the figure	
Zero Selected Item(s) Transformations	Zero transformations for the selected nodes. This action allows you to choose which axes for transformations, rotations, and scaling should be zeroed out (or for scaling set to 1)	Transformations to zero out
Zero Selected Item(s)	Zeroes (clears) the parameters on the selected items	
Zero Selected Item(s) Pose	Zeroes (clears) the pose transformations on the selected items	
Zero Selected Item(s) Shape	Zeroes (clears) the shape morphs on the selected items	

How to make new scripting RiverSoft Art Products usable in Assembly Line

The Assembly Line Pose Automation Kit is designed to be extensible. When new RiverSoft Art scripting products are produced in the future, if it is appropriate to do so, they will be marked "Assembly Line Compatible." However, even though the new products are compatible with Assembly Line, you still need to let Assembly Line know about them. In Data/RiverSoft Art/Data, there is a file called "Assembly Line Operations.txt" This file lists **all** actions that appear in Assembly Line. Each line in the file is equivalent to one action. The format of lines is:

Action Name<COMMA>Script Location

If the action is a built-in action, e.g., "Zero Figure", the "Script Location" after the comma specifies a comment about what the action does starting with a semi-colon, e.g.,

Zero Figure;; Zeroes (clears) pose and shape for the entire figure

For new scripts, you add the relative filename (without dsa/dse extension) as the Script Location, e.g.,

My New Action Name, Scripts/RiverSoft Art/PRODUCT NAME/SCRIPT NAME

That is all you need to do, at this point, restart Assembly Line Editor and the action will show up in the Actions ComboBox.

Advanced Topic for Script Writers: How to Create Actions

To modify your own scripts so that they can be used in Assembly Line should be relatively easy for script writers. There are two steps to integrate an action into Assembly Line:

1. Modify the script so that it can run in "getSettings" and "batch" mode
2. Add the script as an action to the Data/RiverSoft Art/Data/Assembly Line Operations.txt file

The Assembly Line Editor calls external scripts with a "getSettings" argument when it wants the user to be able to set dialog settings without actually executing the external script. The editor saves the result string from this call as parameters for the external script. The expected format of the string is from a `DzSettings.toString()` function call:

```
var settings = new DzSettings();  
settings.setStringValue("Filename", filename);  
settings.setStringValue("Action", wAction.currentText);  
return settings.toString();
```

The editor calls external scripts with a "batch" argument, and with the result string from the "getSettings" call, when it wants the external script to execute without showing a dialog.

Please see the Data/RiverSoft Art/Common/Assembly Actions/RSMModifyFilename.dsa as an example. The argument handling code is at the end of the script in the `ProcessArgs` function.

To add your script as an action to Assembly Line, please follow the procedure in the "How to make new scripting RiverSoft Art Products usable in Assembly Line " section.