

Life Forms & Poser: Generating motion for Poser

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This has been tested with Poser 4 and Lifeforms 3.5.

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About the Tutorial

This tutorial explains how you can apply motion capture to a figure from Poser in Lifeforms and bring back into Poser:

- Exporting Figure from Poser
- Importing and Applying Mocap In Lifeforms
- Importing the Motion into Poser

What you need

- **Poser 3 or 4.**
- **Life Forms Studio 3.5. or the 3.5 demo that you can get from our website.**
- **Latest BVH plugins available from our website.** www.charactermotion.com
- **Tutorial files.**

Tutorial 1: Exporting Motion to Poser 4

Life Forms Studio 3.5 comes with 160 motion captured animation and 600 + keyframed motions that you can export to Poser 3, 4.

Mocap sequences are recorded from a live actor using motion sensitive equipment. The motion is recorded at a frame rate of 30 frames/s creating 30 keyframes for every second of animation. This dense motion data produces very natural animation. The motion is represented by a skeleton figure.

The recommended process for generating motions for Poser is as follows:

- 1 Export your Poser model in its default position as a BVH (don't add hair yet).
- 2 Import the Poser generated BVH into Life Forms. Apply mocap, adjust tweak or animate it by keyframing.
- 3 Export the motion as BVH file and import it into your model file.

Part1: Poser: Exporting BVH from model in default position

- 1 Open **posergirl.pz3**

In Poser, open this file by choosing **File menu > Open**. Select **poser-girl.pz3** and click Open. Do not put hair on yet.

2 Export posergirl.bvh

Choose **File > Export**. Select **BVH motion** and click save.

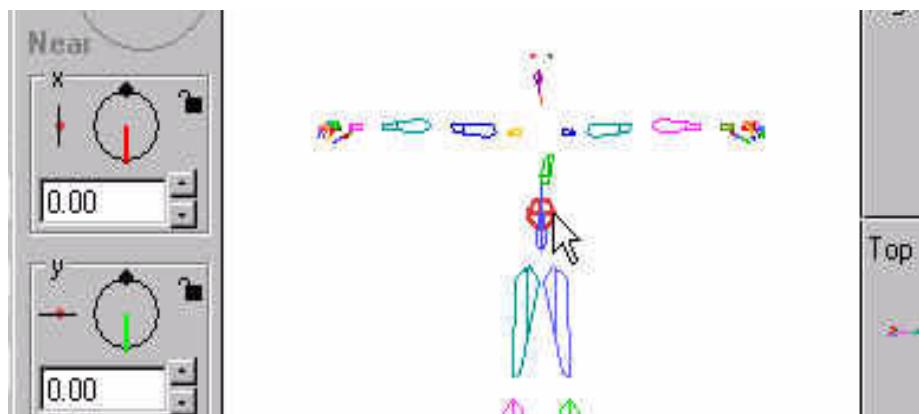
Part2: Lifeforms: Import the BVH into Lifeforms and Apply Mocap

1 Open Lifeforms and Import posergirl.bvh

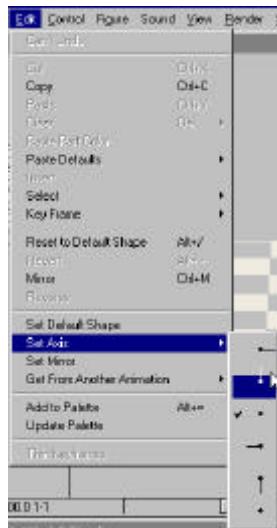
Open Lifeforms and choose **File > New Animation**. Choose **Figure > Import Figure**. A browser window appears. Set the file type to All Types and navigate to **posergirl.bvh** and select and import. A skeleton of posergirl will appear on the Stage Window in Lifeforms.

2 Examine the skeleton and change axis of hips

Double click on the Posergirl skeleton and the Figure Editor window will appear. Select the hips. (Sometimes when importing into Lifeforms the hips get the wrong axis direction because the hips are wider rather than taller and axis direction assumes the direction of the longest dimension of its geometry).



Go to **Edit > Set Axis**. Hold down mouse and a drop down menu of axis directions will appear. Select the one that goes straight up.



3 Applying Mocap

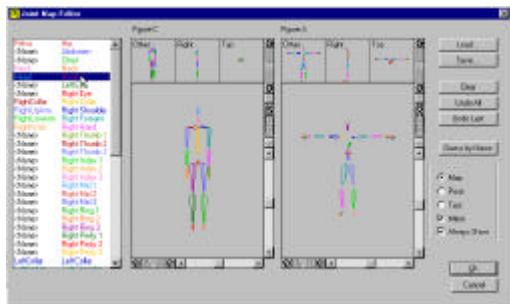
Go to **File > Browser**. This opens the File Browser which allows navigation and previewing and special paste options of saved animations. Navigate to **TemperTantrum.LFA**. and **select it (don't hit paste yet)**. You can preview the action in the File Browser by hitting the play button and zoom in and out and rotate. Make sure your figure is selected (by clicking on it in the Stage window and it becomes highlighted). Now with tempertantrum selected hit Paste in the File Browser. A window will come up asking to change frame rate, choose YES. Another window will come up and it is called the **Joint Map Editor**. This allows for control over the pasting/copying of motion from one hierarchy to another. In this case it is a motion capture hierarchy based upon the performance actor who was captured and we will be pasting that motion to Posergirl's skeleton.

4 Joint Map Editor

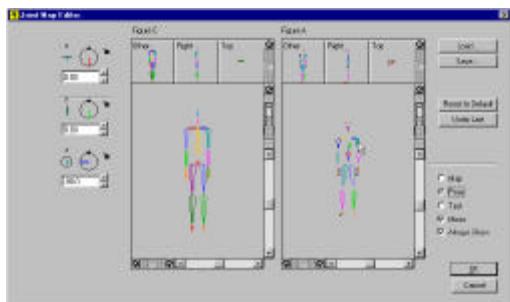
There are 3 steps involved in the Joint Map Editor.

a) mapping the joints: Click on a joint of the Posergirl skeleton then click on the corresponding joint of the Motion Captured Skeleton. Do this for all joints until the lists of joints in the left window are all matched up.

You can skip the following and open posergirltantrum.lfa located in the downloaded tutorial folder, but you will need to know the following steps to complete the pasting of animation.

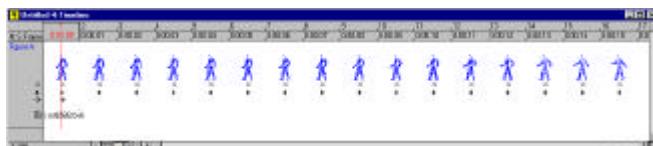


b) matching the pose: Click Pose. Now use the dials to rotate the arms and legs of either character until they are both basically in the same pose. The straighter the angle, the better the copying of the animation will be.



c) testing the motion: Click Test. Now use the time slider to scrub through the animation. It should look relatively close. View all sides. If it looks good, hit OK.

Now, the Timeline should look like this (mocap data puts a keyframe on every frame, and Lifeforms displays the data graphically with a visual representation of the pose in time).



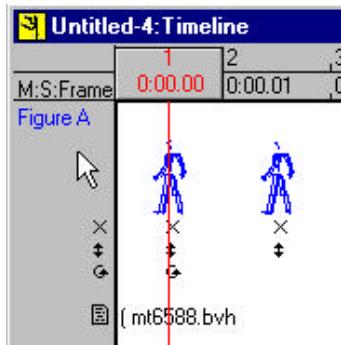
Playback your animation in the Stage Window by hitting the tilde key and esc to stop, or using the playback panel. Look for sliding feet or any other problems that come with using mocap on a different proportioned hierarchy. Zoom out and rotate the window to get different views.

If it doesn't look close there could be: a mapping problem (go back to map and check), the pose wasn't close (go back to pose and redo) or the hip axis wasn't set (cancel and check hip axis as it should be going straight up).

5 SNAP

To me, it looks like the feet are sliding a bit, so in order to fix this, Life-

forms has a feature called AutoSNAP that acts like a constraint. It constraints the position of the joint that is lowest to the ground. To activate, select the range of frames. In this case we want all frames so all we have to do is click on the grey area box in the timeline.

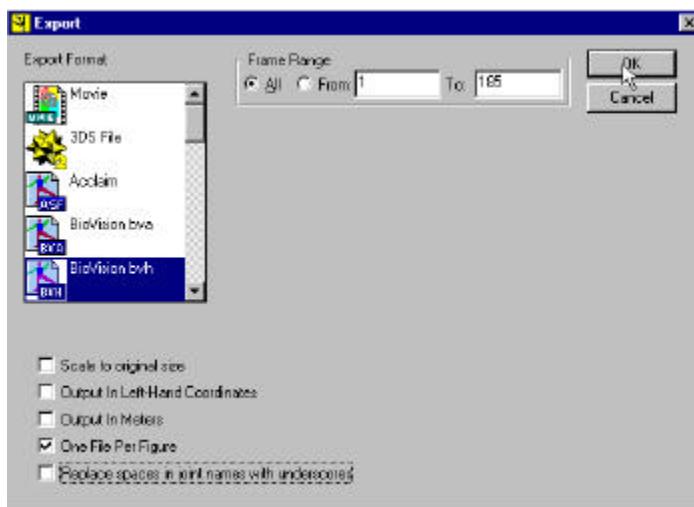


Then go to **SNAP >AutoSNAP**. You will see a snap icon under all the keyframes in the Timeline. Playback the animation and view the difference.

Part3: Exporting the Motion and Importing into Poser

1 Exporting the motion

In Life Forms, choose **FILE > EXPORT**. Select BVH and click export. A window will come up. See the below picture for the options you must select (make sure you click off replace spaces with hyphens because the joint names must be identical between the two packages otherwise you will get a mismatched motion error). Save as **tempertantrum.BVH**



2 Open Poser and the posergirl.pz3 file and import BVH

Choose **File > Import > BVH Motion**. Select **tempertantrum.BVH**.

3 Align Arms along the X axis

A dialog box appears. Click “Along X axis.”

Poser will now import and apply the **tempertantrum.BVH**. motion to the PoserGirl figure. Now you can apply hair and other scene objects. See movie **posergirltantrum.avi**.

PROBLEMS THAT MIGHT OCCUR

Sometimes Poser 4 exports BVH files that contain the cameras. This would be too awkward to animate in Lifeforms because the cameras become part of the figure’s hierarchy. If this happens, reset Poser and launch it to factory state. That is under preferences.

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