

SUMMARY OF AN EXCELLENT Video on Importing BVH data into Houdini by Atom

<https://vimeo.com/128729379>

Sample files are available from the link above.

Conversion of bvh to cmd/bclip also given at

<https://vimeo.com/53088185>

1. Grab mocap agent out of the box
2. Allow editing of contents
3. Add a path parameter using the parameter dialog box of Operator Path under Controls
4. CHOP Path is the parameter – chop and CHOP path as param/label
Set to CHOP/OUT
5. Vis the bones (moves the lower part of the network out of the way, zooms in to click on display)
So from the node labeled ROOT and down and then undisplay the geo node so you are only seeing the bones
6. Import bvh by importing cmd/bclip

There is a hscript that converts bvh to cmd/bclip files

(crowd_introduction_chapter2_mocap_part1_download.mp4 (converts bvh to cmd and companion bclip file)

Go to textport:

- Source path/filename.cmd
->source /Users/Debbie/Desktop/Crowds/Archive/08_02.cmd
- This imports the bone system from the cmd file. Bones don't move as they are looking for the bclip. (shows up as a subnet on the top level)
- The naming on the bones should be the same as what is in mocap1 which it is
- Dive into the subnet and then into the mocap node, here is where you will change the reference to the correct bclip
- Reference the bclip file (top node under Channel File, rename data node to OUT)
The bones are no longer in view – press SPACE G with the top node selected
Now you can see the bones with the mocap data!
- Copy the imported mocap into the biped1
- Scale down the existing subnet to 0.07 (because of the data is huge) so we can see it side by side
- Cross map – look at for example Hips_To_LowerBack
Change chop("../CHOP/OUT/Hips_To_LowerBack:rx") to
chop("../CHOP/OUT/\$OS:\$CH")
now for the first part we'll change it to chsop("../chop")+

That then we have a general expression

We can select the network and use this in all the bones by deleting the rotate channels and copying this. (Lasso select everything below Hips_To_LowerBack and copy rotation parameters)

i.e. `chop(chsop("../chop")+"/$OS:$CH")`

so it grabs the path and then has a general expression for the node and operator

- Change the reference on the path to point to "mocap" rather than "CHOPS" in the new operator path you defined. Now you have the new motion, but not translating
- Look at the nodes above Hips_To_LowerBack
- In Hips – leave the inplace parameter but put the global expression in the front part
- In rig_offset, paste the expressions into Translate and Rotate
- If you uncheck Inplace Animation checkbox on the top level, it will not walk inplace
- The hand isn't quite right, but everything else works! Cool!

How to convert the bvh data – it comes with Houdini in the bin!

mcbiovision name.bvh creates the cmd (bones) and corresponding bclip (animation)

On Windows

- open a Houdini command line window (env variables are set)
- Go to the directory where your bvh files is
- type `mcbiovision filename.bvh` - this will produce the corresponding cmd/bclip