

Appendix C

Camera Transfer Tools - User Guide

I. Background

These tools were "inspired" by a tutorial on SCAD's website called '[Maya to Houdini Camera Matching](#)'. It involves using a MEL script to save out Maya's frame values, setting up a CHOP network manually in Houdini, manually copying camera attributes like resolution and f-stop, etc and manually converting Maya's camera horizontal aperture into Houdini camera horizontal aperture.

I found the tutorial quite useful while doing a group project at Bournemouth University, but there was also room for improvement. I decided to make the process easier and more robust and to implement the reverse (Houdini->Maya camera transfer) as well. The project also was a good exercise in Python, HOM and Python for Maya. Last, but not least, I wanted to create tools that can be useful to anyone working with Houdini or Maya. It is a way for me to give back to the CG community.

II. Tools installation

1. Supported Houdini and Maya versions:

- Houdini 9.5 and later, both 32-bit and 64-bit. Tested on both Windows and Linux (Ubuntu).
 - Maya 8.5 and later, both 32-bit and 64-bit. Tested on both Windows and Linux (Ubuntu).
- Note: I don't have access to a Mac, so the tools have not been tested on OS X.

2. Installation:

1. Code and help installation:

Copy the folder 'mt_tools' to your \$HOME directory.

On Windows \$HOME is My Documents/

On Linux it is ~username/

2. Houdini shelf installation:

Copy the included default.shelf file to \$HOME/houdiniX.Y/toolbar/, where houdiniX.Y is your Houdini version.

3. Maya shelf installation:

Copy shelf_MT_tools.mel to your \$HOME/maya/\$version/prefs/shelves/ folder.

For example, on a Windows machine having a 32-bit installation of Maya 2008, this directory would be My Documents/maya/2008/prefs/shelves.

Note: This user guide demonstrates the use of the camera transfer tools by doing a "roundrip" transfer of a camera from Maya to Houdini and back to Maya. I have tested using the scene file provided in the tutorial mentioned above.

III. Exporting a Maya camera

IV. Importing a Maya camera in Houdini - CHOPs

V. Importing a Maya camera in Houdini - keyframes

VI. Exporting a Houdini camera

VII. Importing a Houdini camera in Maya