License:

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To learn about MANO and SMPL+H, please visit our website: http://mano.is.tue.mpg.de

You can find the MANO/SMPL+H paper at: http://files.is.tue.mpg.de/dtzionas/MANO/paper/Embodied\_Hands\_SiggraphAsia2017.pdf

Visit our downloads page to download data (scans, alignments), model files and python code for MANO (hand-only) and SMPL+H (body+hands):

http://mano.is.tue.mpg.de/downloads

For comments or questions, please email us at: mano@tue.mpg.de

System Requirements:

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Operating system: OSX, Linux

Python Dependencies:

- Numpy & Scipy [http://www.scipy.org/scipylib/download.html]

- Chumpy [https://github.com/mattloper/chumpy]

- OpenCV [http://opencv.org/downloads.html]

Getting Started:

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1. Extract the Code:

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Extract the "mano.zip" file to your home directory (or any other location you wish)

2. Set the PYTHONPATH:

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We need to update the PYTHONPATH environment variable so that the system knows how to find the MANO/SMPL+H code. Add the following lines to your ~/.bash\_profile file (create it if it doesn't exist; Linux users might have ~/.bashrc file instead), replacing ~/mano with the location where you extracted the mano.zip (or with version 1\_X: mano\_v1\_X.zip) file:

MANO\_LOCATION=~/mano\_v1\_2

export PYTHONPATH=$PYTHONPATH:$MANO\_LOCATION

Open a new terminal window to check if the python path has been updated by typing the following:

> echo $PYTHONPATH

3. Install the 3D viewer

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- Please follow the installation instruction @ https://github.com/MPI-IS/mesh

- Run 'pip install opendr' (in the same virtual environment)

4. Run the Hello World scripts:

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In the new Terminal window, navigate to the mano/webuser/hello\_world directory. You can run the hello world scripts now by typing the following:

> python MANO\_\_\_hello\_world.py

OR

> python MANO\_\_\_render.py

OR

> python SMPL+H\_\_\_hello\_world.py

OR

> python SMPL+H\_\_\_render.py

Note:

Both of these scripts will require the dependencies listed above. The scripts are provided as a sample to help you get started.

Acknowledgements:

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