Rendering Locally from the Command Line

- **Make sure you have sourced the secondary Houdini applications by having the following line in your ~/.bashrc file:**

    cd /opt/hfs17.0.416/; source houdini_setup_bash > /dev/null; cd;

- **open terminal and type:**
    cd
    cp -r /public/mapublic/IoannisIoannidis/1819/WOBBLY_SPHERE ~/
    cd ~/ WOBBLY_SPHERE
    goHoudini H17_wobbly_sphere_begin.hipnc &

Render The Live Network (heavy)

1) HRENDER (simple & easy script to use):

i) render 1 frame:
- open terminal

    to make sure we delete any previously exported sequence of frames under ./render folder:
- type *./clearFrames.sh*

- type the following command --> *hrender -F 1 -d mantra1 testSim.hipnc*

 ii) render a sequence with extra options:
- open terminal
- type the command --> *hrender -e -f 1 10 -w 640 -h 480 -R -v -d mantra1 testSim.hipnc*

2) HBATCH (To open the scene in Hscript mode)

-R option will force a <u>render licence</u> to be used instead of a <u>Houdini licence</u>

i) render a sequence:
- open terminal

- type the following command --> *hbatch testSim.hipnc*
- type the following test Hscript commands :
    echo $HIPNAME
    echo $OS
    echo $RFSTART
    echo $RFEND

- type the following render Hscript command:--> *render -V -I -f 1 2 mantra1*
- (Press: Control-C to exit the hbatch session when finished rendering)

useful links:

- https://www.sidefx.com/docs/houdini14.0/commands/render
- https://www.sidefx.com/docs/houdini17.0/commands/render
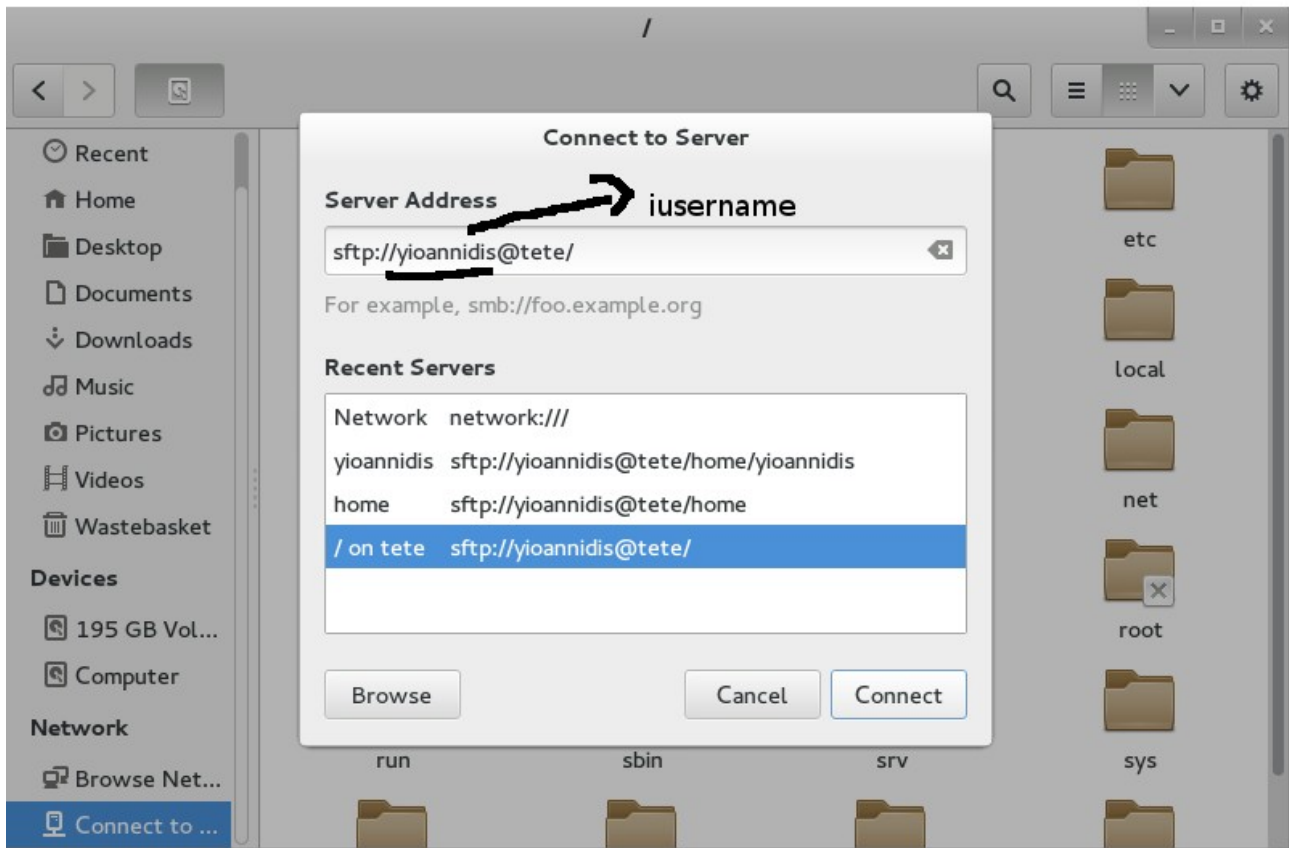- file:///home/yioannidis/Downloads/documentation.pdf

Generate & Render IFD files (light) locally

1)
- File .. Open .. **testSim_IFD_GENERATION.hipnc**

- open terminal

- type the command-->*hrender -e -f 1 25 -R -v -d mantra1 testSim_IFD_GENERATION.hipnc*

  open terminal and render 1 frame based on the ifd files generated previously
- type the command-->*mantra -f savedifds/test_0001.ifd*
  OR type *./localMantra.sh*

Rendering Remotely on the Renderfarm

- Open a terminal and type : **goQube &**
- Go to: **Places** .. **Browse Network** .. **Connect To Server** and type :

  sftp://YOURUSERNAME@tete

- copy the testSim folder manually across to the server

open terminal and type: **goQube &**

The RenderFarm itself has:
- 16 Nodes/Workers
- Each of these nodes has 20 cores/threads/slots simultaneously

- So, the farm has in a total in parallel capacity of: 16*20=320 slots/frames

Never, specify more than 40 Instances!

1)Using HRENDER (simple & easy script to use): remotely

ID:27786

Resubmit this Job:
- •filter ID- **27786**
- •Right Click on the Job
- •Left Click Resubmit

Change the following fields on the Resubmit Dialog:

•NAME:==YOURUSERNAME==_Hrender

•**Cwd**: /home/==YOURUSERNAME==

•**scenefile:** ==*/render/YOURUSERNAME/scenfile.hipnc*==

•**Driver/Cop Value:** ==*/out/mantra1*==

•Click Resubmit button

Cmd Template:

cd /opt/software/hfs17.0.416; source houdini_setup_bash;%(csh)s "%(hrender)s" -e -f QB_FRAME_START QB_FRAME_END -i QB_FRAME_STEP %(driver_cop_arg)s %(driver_cop_value)s %(argv)s "%(scenefile)s"

2)Using HBATCH remotely

ID:27836

Resubmit this Job:

•filter ID-   **27836**

•Right Click on the Job

•Left Click Resubmit

Change the following fields on the Resubmit Dialog:

•NAME:==YOURUSERNAME==_Hbatch,

•**Cwd**: /home/==YOURUSERNAME==

•Click Resubmit button

Cmd Template:

cd /tmp; echo "render -V -f QB_FRAME_START QB_FRAME_END mantra1" > ${UID}-QB_FRAME_NUMBER; cd /opt/software/hfs17.0.416; source houdini_setup_bash; hbatch -R -c /tmp/${UID}-QB_FRAME_NUMBER /render/==YOURUSERNAME==/==YOURSCENEFILE==.hipnc; rm /tmp/${UID}-QB_FRAME_NUMBER

3)Generate & Render IFD files (light) remotely

ID:27838

Resubmit this Job:

•filter ID- **27838**

•Right Click on the Job

•Left Click Resubmit

Change the following fields on the Resubmit Dialog:

•**NAME**:==YOURUSERNAME==__Hrender_Generated_IFDs

•**SCENFILE:** *==/render/YOURUSERNAME/scenfile.hipnc==*

•**CWD**: /home/==YOURUSERNAME==

•**Driver/Cop Value:** *==/out/mantra1==*

•Click Resubmit button

<u>Cmd Template:</u>

cd /opt/software/hfs17.0.416; source houdini_setup_bash;%(csh)s "%(hrender)s" -e -f QB_FRAME_START QB_FRAME_END -i QB_FRAME_STEP %(driver_cop_arg)s %(driver_cop_value)s %(argv)s "%(scenefile)s"

4)use mantra to render the ifds

ID:27839

Resubmit this Job:

•filter ID- ***27839***

•Right Click on the Job

•Left Click Resubmit

Change the following fields on the Resubmit Dialog:

•**NAME**: ==YOURUSERNAME==_Mantra*CMDRange*

•**CWD**: /home/==YOURUSERNAME==

•Click Resubmit button

<u>Cmd Template:</u>

cd /opt/software/hfs17.0.416;source ./houdini_setup_bash;

mantra -f /render/==YOURUSERNAME==/SCENEFOLDER/generatedIFDS/frameQB_FRAME_NUMBER.ifd;