

# 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/hfs16.0.705/; source houdini_setup_bash > /dev/null; cd;
```

- **open terminal and type:**  

```
cd  
cp -r /public/mapublic/IoannisIoannidis/WOBBLY_SPHERE ~/  
cd ~/ WOBBLY_SPHERE  
goHoudini H16_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) HATCH (To open the scene in Hscript mode)

**-R option will force a render licence to be used instead of a Houdini licence**

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>
- <file:///home/yioannidis/Downloads/documentation.pdf>

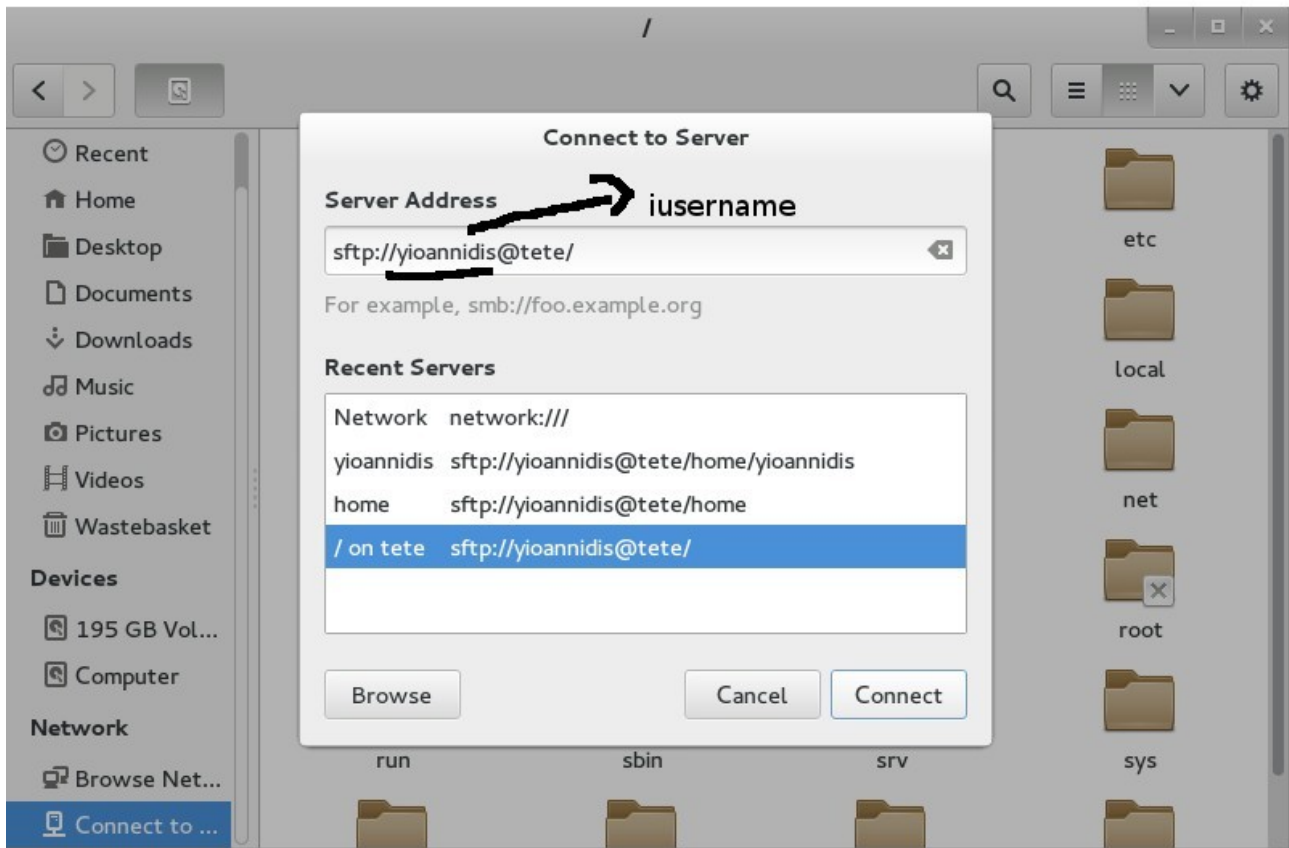
## Generate & Render IFD files (light) locally

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:  $16 \times 20 = 320$  slots/frames

**Never, specify more than 40 Instances!**

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

**ID:21076     Hrender-WOBBLY\_SPHERE\_v16.0.705**

Resubmit this Job:

- filter ID- **21076**
- Right Click on the Job
- Left Click Resubmit

**Change the following fields on the Resubmit Dialog:**

- NAME: **YOURUSERNAME**\_Hrender
- CWD: /home/**YOURUSERNAME**
- Click Resubmit button

actual command on the resubmit dialog:

```
cd /opt/software/hfs16.0.705; 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 HATCH remotely

**ID:21078     HATCH\_CMDRANGE\_WOBBLY\_SPHERE\_16\_0\_705**

Resubmit this Job:

- filter ID- 21078
- Right Click on the Job
- Left Click Resubmit

**Change the following fields on the Resubmit Dialog:**

- NAME: **YOURUSERNAME**\_Hbatch,
- SCENEFILE: /render/**YOURUSERNAME**/testSim/testSim.hipnc
- CWD: /home/**YOURUSERNAME**
- Click Resubmit button

actual command on the resubmit dialog:

```
cd /opt/software/hfs16.0.705; source houdini_setup_bash;
hbatch -R -c "render -V -f QB_FRAME_START QB_FRAME_END mantra1"
/render/YOURUSERNAME/testSim/testSim.hipnc
```

## 3)Generate & Render IFD files (light) remotely

**ID:21080     HRENDER\_GenerateIFDs16GenerateIFDs16\_0\_705**

Resubmit this Job:

- filter ID- 21080
- Right Click on the Job
- Left Click Resubmit

**Change the following fields on the Resubmit Dialog:**

- NAME: **YOURUSERNAME**\_\_Hrender\_Generated\_IFDs
- SCENFILE: /render/yioannidis/testSim/testSim\_IFD\_GENERATION.hipnc
- CWD: /home/**YOURUSERNAME**
- Click Resubmit button

actual command on the resubmit dialog:

```
cd /opt/software/hfs16.0.705; 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:21092      MantraCMDRange16\_0\_705**

Resubmit this Job:

- filter ID- 21092
- Right Click on the Job
- Left Click Resubmit

**Change the following fields on the Resubmit Dialog:**

- NAME: **YOURUSERNAME**\_CMDRange15
- CWD: /home/**YOURUSERNAME**
- Click Resubmit button

actual command on the resubmit dialog:

```
cd /opt/software/hfs16.0.705;source ./houdini_setup_bash;
mantra -f /render/YOURUSERNAME/testSim/savedifds/test_QB_FRAME_NUMBER.ifd;
```