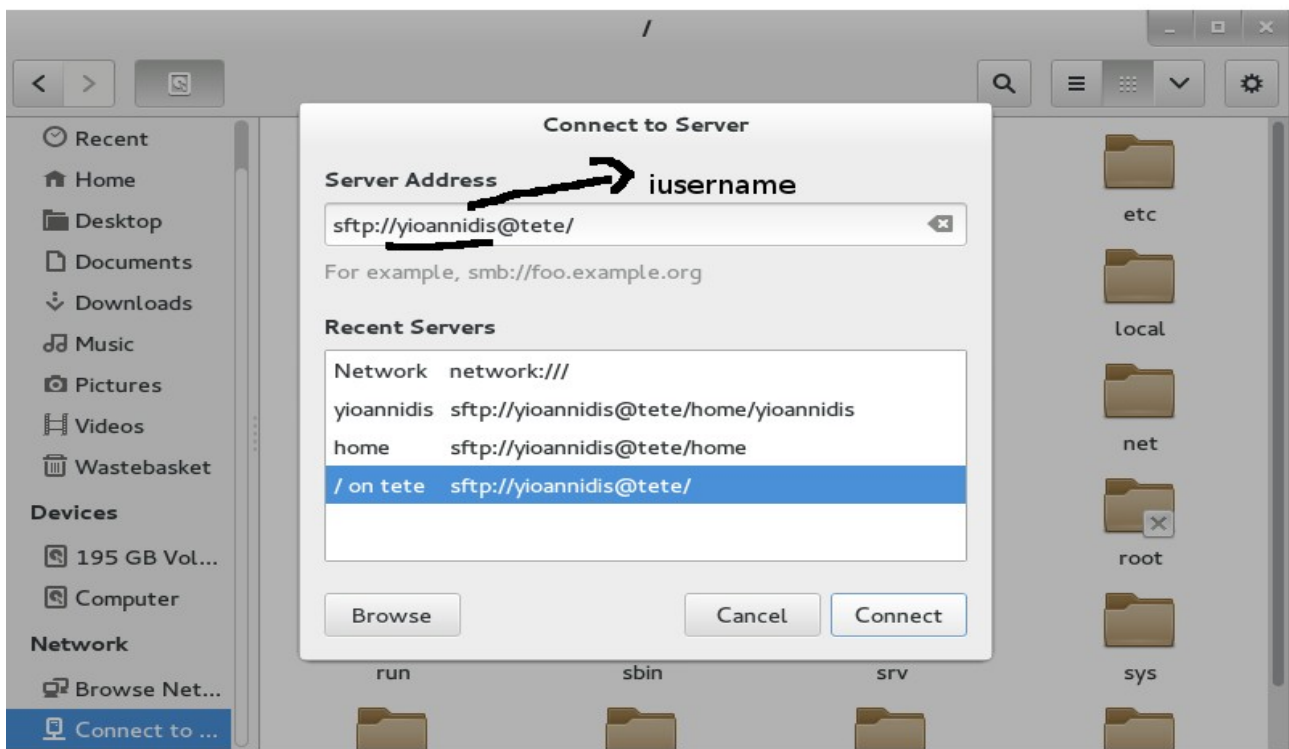


# Qube Renderfarm Guide: Houdini

## Scene setup

In order to prepare your scene for submission to the renderfarm, the following steps are suggested:

- Place scene file, and associated scene assets (eg. Textures, Sims etc.) in folders, within a single directory
- Make use of relative file paths using the \$HIP or \$JOB variables when assigning all scene assets
- (If \$JOB is being used it can be set in the textport i.e.  
set -g JOB = /render/i1234567/myHoudiniSceneDir)
- Copy the entire scene folder to your directory within /render on the tete server.
  - This can be done using the Connect to Server... option which can be found in the Places main linux menu, all the way down



server address: **sftp://username@tete/**

- It is sensible to add a bookmark to this location, so it can be easily accessed when setting up and accessing future renders.
- Copy and Paste can be used to copy your scene directory into this directory ready for use on the render farm.

- Alternatively files can be copied using the sftp command line tool.

- Start Qube:
- Submit a Houdini job by clicking on: **Submit-Houdini SimpleCmd-Houdini (hrender) Job...**

## Suggested Qube Settings

The following defaults are a good starting point for starting a Houdini job on the renderfarm.

**Instances:** Set number of frames to render in parallel (not more than 40)

**Range:** Specify frame range in the format start-end.

**scenefile:** Enter path to scene file to render i.e.

*/render/**username**/myHoudiniSceneDir/simpleShattering.hipnc*

The screenshot shows the 'SimpleCmd-Houdini (hrender) Job' configuration window. The settings are as follows:

- Name:** yanHrenderSimpleShattering
- Priority:** 9999
- Instances:** 10
- Qube Frame Range:**
  - Range:** 1-10
  - Execution:** Individual frames
  - rangeOrdering:** ascending
- Preview Frames Submission:**
  - Use Preview Frames:** ☐
  - Frame Numbers:**
  - Preview Priority:** -1
  - Preview Subjobs:** 1
- Required Parameters:**
  - hrender:** hrender **username** (with a hand-drawn arrow pointing to the 'username' field) [Browse]
  - csh.exe (Win):** [Browse]
  - scenefile:** /render/yioannidis/myHoudiniSceneDir/simple [Browse]

**Driver/Cop:** Select -d for rendering and -c compositing network output

**Driver/Cop Value:** Pick your output driver. I.e. /out/mantra1

**R:** Make sure this setting is enabled in order to make sure that a non-graphics render license is used rather than a full Houdini license

**Cmd Template:** Render command to be executed. This needs to include commands to initialize the HoudiniEnvironment. We recommend starting with the entire template shown here:

```
cd /opt/software/sidefx/16.0.557; 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"
```

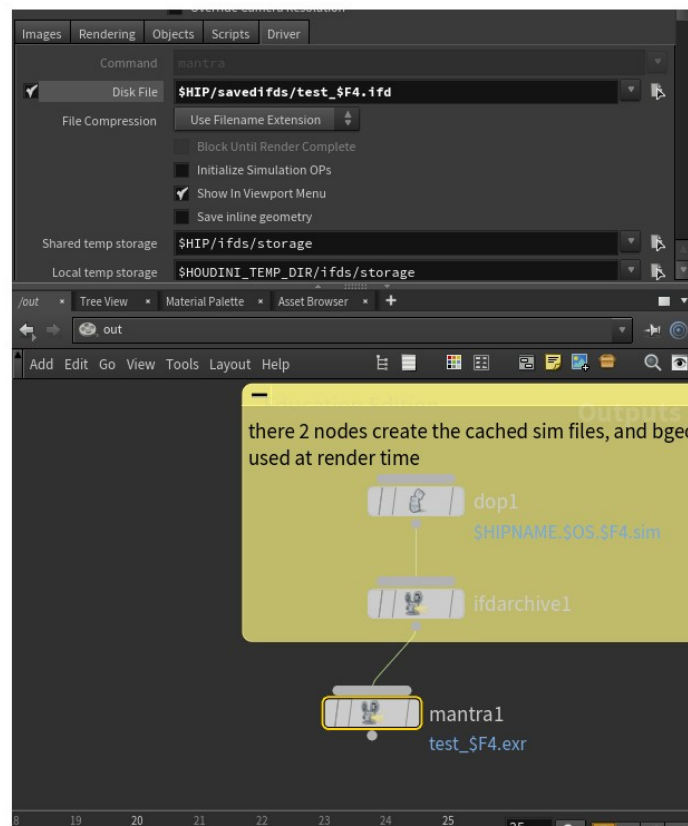
The image shows a screenshot of a Houdini render submission dialog box. The dialog is organized into several sections:

- Range:** A text field containing "1-10".
- Preview Frames Submission:** A dropdown menu.
- Preview Priority:** A text field containing "-1".
- Required Parameters:** A section containing several fields:
  - hrender:** A dropdown menu with "hrender" selected and a "Browse" button.
  - scenefile:** A text field containing "/render/yioannidis/myHoudiniSceneDir/simple" and a "Browse" button.
  - Driver/Cop:** A dropdown menu with "-d" selected.
  - Driver/Cop Value:** A text field containing "/out/mantra1".
- Optional Parameters:** A section containing a checkbox labeled "R" which is checked.
- Qube SimpleCmd and Shell Parameters:** A section containing a text field for the "Cmd Template". The text in the field is: 

```
cd /opt/software/sidefx/hfs15.5.480; source
houdini_setup_bash;%(csh)s "%(hrender)s" -e -f
QB_FRAME_START QB_FRAME_END -i QB_FRAME_STEP
```

At the bottom of the dialog, there are five buttons: "Set Defaults", "Clear Defaults", "Expert Mode" (with an unchecked checkbox), "Cancel", and "Resubmit".

You can use the above command to either render your live scene directly or even generate **ifd** files for later use



Requirements	<input type="text"/>	Browse
Reservations	<input type="text" value="host.processors=1"/>	Browse
Restrictions	<input type="text"/>	Browse
Qube Advanced Job Control		
Flags	<input type="text" value="auto_mount"/>	Browse
Dependency	<input type="text"/>	Add
Email (job complete)	<input type="checkbox"/> <input type="text" value="i7762165"/>	
Email (failed frames)	<input type="checkbox"/> <input type="text" value="i7762165"/>	
Blocked	<input type="checkbox"/>	
Stderr->Stdout	<input type="checkbox"/>	
Job Label	<input type="text"/>	
Job Kind	<input type="text"/>	
Process Group	<input type="text"/>	
Set Defaults Clear Defaults <input checked="" type="checkbox"/> Expert Mode  Cancel Resubmit		

**Environment Variables:** Used to add environment variables.  
Must have variable for the license server set here

Resubmit Houdini (hrender)

Qube Advanced Job Control ▼

Flags

Email (job complete) ☐

Email (failed frames) ☐

[FlightCheck scripts](#) ▲

[Qube Job Delayed Start](#) ▲

Qube Job Environment ▼

Cwd

Environment Variables

Key	Value
HOUDINI_USE_HFS_PYTHON	1
SESI_LMHOST	burton.bournemouth.ac.uk

[Qube Job Validation & RegularExpression-based Output Parsing](#) ▲

[Qube Actions](#) ▲

Qube Notes ▼

Notes

☐ Expert Mode

Resubmit Houdini (hrender)

Impersonate User

Qube Job Validation & RegularExpression-based Output Parsing ▾

Min File Size

0

▲▼

regex\_highlights

regex\_errors

regex\_outputPaths

regex\_progress

regex\_maxLines

20

▲▼

Qube Actions ▾

generateMovie

☐

Qube Notes ▾

Account


▼

Notes

Set Defaults

Clear Defaults

☒ Expert Mode



Cancel

Resubmit