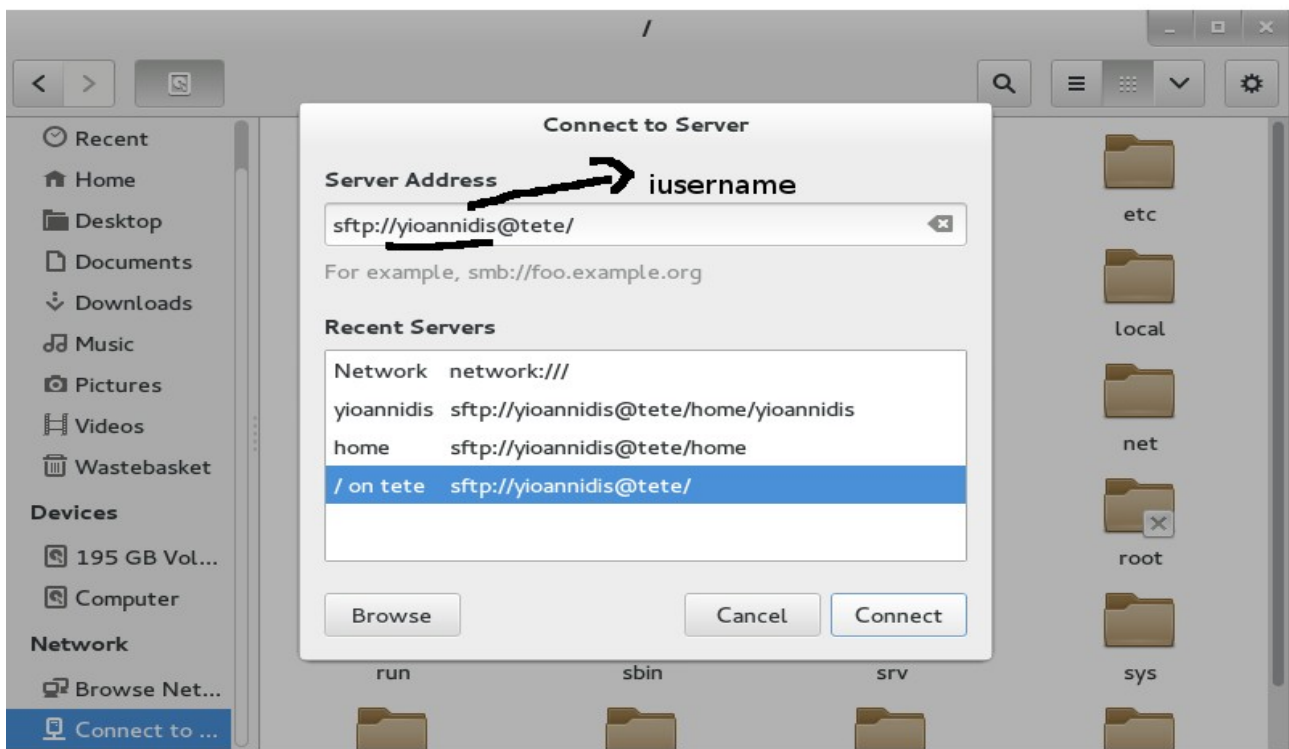


Qube Renderfarm Guide: Houdini

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/hfs15.5.480; 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:

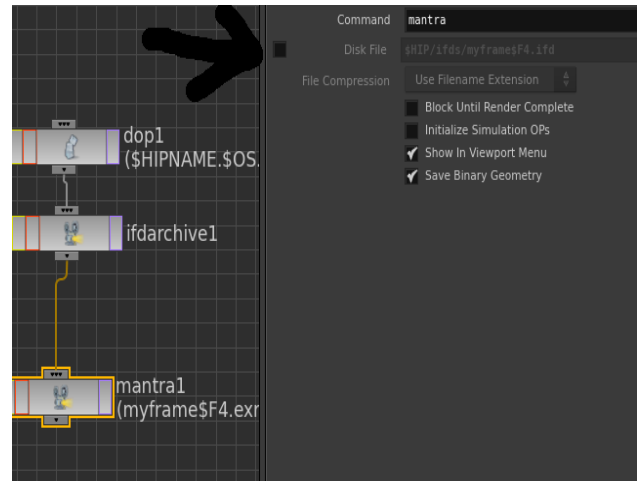
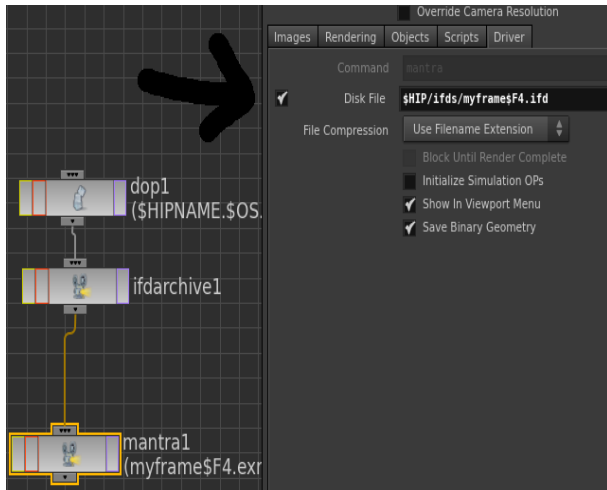
- Range:** A text field containing "1-10".
- Preview Frames Submission:** A dropdown menu.
- Preview Priority:** A text field containing "-1".
- Required Parameters:** A section containing several fields:
 - hrender:** A dropdown menu with "hrender" selected and a "Browse" button.
 - scenefile:** A text 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 labeled "Cmd Template" with a blue background. 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

(Houdini 14 equivalent setup)




Resubmit Houdini (hrender)

Omit Hosts	<input type="text"/>	Browse
Omit Groups	<input type="text"/>	Browse
Priority Cluster	/	Browse
Host Order	<input type="text"/>	Browse
Requirements	<input type="text"/>	Browse
Reservations	host.processors=1	Browse
Restrictions	<input type="text"/>	Browse

Qube Advanced Job Control

Flags	auto_mount	Browse
Dependency	<input type="text"/>	Add
Email (job complete)	<input type="checkbox"/> i7762165	
Email (failed frames)	<input type="checkbox"/> 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 ☒ Expert Mode  Cancel Resubmit

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

Resubmit Houdini (hrender)

Retry Frame/Instance: 0

Retry Work Delay: 0

Subjob Timeout: -1

Frame Timeout: -1

Qube Job Environment

Cwd: /home/yioannidis

Key	Value
SESI_LMHOST	burton.bournemouth.ac.uk


Environment Variables

Impersonate User:

Qube Job Validation & RegularExpression-based Output Parsing

Min File Size: 0

regex_highlights:

Set Defaults Clear Defaults ☒ Expert Mode  Cancel Resubmit

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