

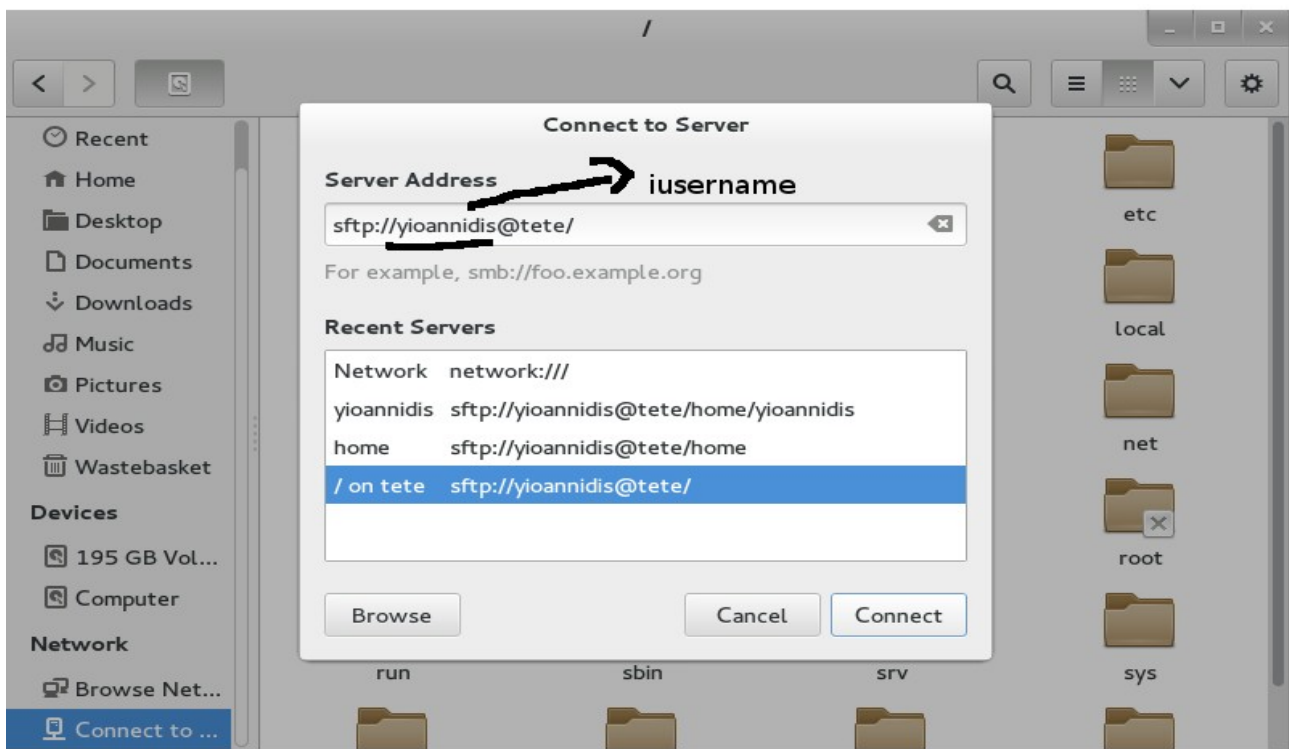
Qube Renderfarm Guide: Houdini

Scene setup

note: versions of Houdini in the screenshots shown here will be different to the ones in current system because of continuous houdini updates, however it shouldn't affect the overall setup process

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 'QUBE JOB CONFIG' dialog box with the following settings:

- 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:** (empty)
 - Preview Priority:** -1
 - Preview Subjobs:** 1
- Required Parameters:**
 - hrender:** hrender (with a dropdown arrow) and a 'Browse' button. A handwritten arrow points to the 'username' text next to the dropdown.
 - csh.exe (Win):** (empty dropdown) and a 'Browse' button.
 - scenefile:** /render/yoannidis/myHoudiniSceneDir/simple (with a dropdown arrow) and a 'Browse' button.

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

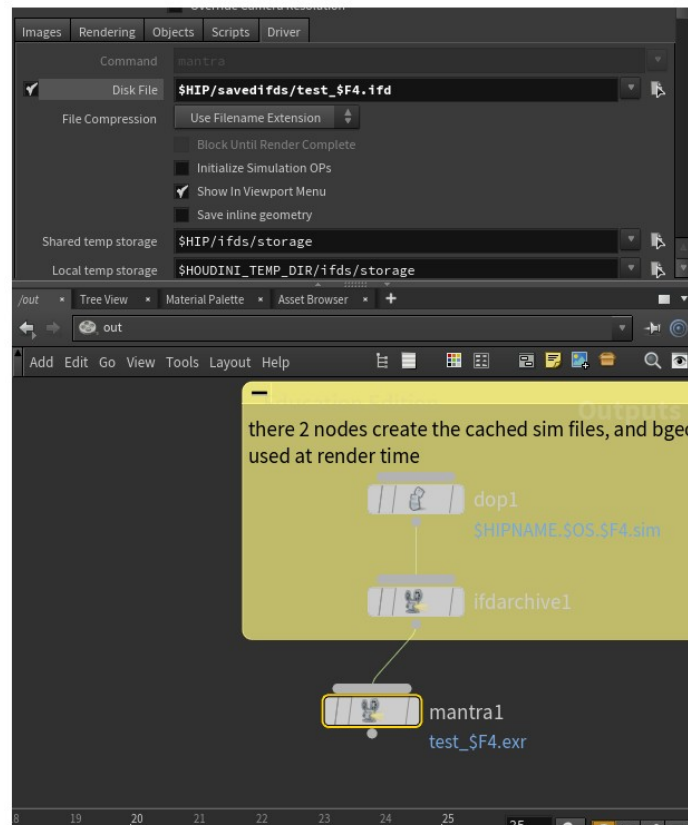
Cmd Template: Render command to be executed. This needs to include commands to initialize the HoudiniEnvironment. We recommend starting with the entire template shown here:


```
cd /opt/software/sidefx/17.0.416; 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"
```

The image shows a Houdini render submission dialog box. It contains several sections: 'Range' with a value of '1-10'; 'Preview Frames Submission' with a 'Preview Priority' of '-1'; 'Required Parameters' with fields for 'hrender' (set to 'hrender'), 'scenefile' (set to '/render/yioannidis/myHoudiniSceneDir/simple'), 'Driver/Cop' (set to '-d'), and 'Driver/Cop Value' (set to '/out/mantra1'); 'Optional Parameters' with a checked checkbox for 'R'; and 'Qube SimpleCmd and Shell Parameters' with a 'Cmd Template' field containing a shell script. At the bottom are buttons for 'Set Defaults', 'Clear Defaults', 'Expert Mode' (unchecked), a download icon, 'Cancel', and 'Resubmit'.

Range	1-10
Preview Frames Submission	
Preview Priority	-1
Required Parameters	
hrender	hrender <input type="button" value="Browse"/>
scenefile	/render/yioannidis/myHoudiniSceneDir/simple <input type="button" value="Browse"/>
Driver/Cop	-d
Driver/Cop Value	/out/mantra1
Optional Parameters	
R	<input checked="" type="checkbox"/>
Qube SimpleCmd and Shell Parameters	
Cmd Template	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
Set Defaults Clear Defaults <input type="checkbox"/> Expert Mode <input type="button" value="Download"/> Cancel 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	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 <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
SESLMHOST	burton.bournemouth.ac.uk

Qube Job Validation & RegularExpression-based Outout 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