Setting the Project's paths correctly

First we need to check that the paths in our project are set correctly.

Because the renderfarm cannot access any local paths (like "c:\user\desktop\my_project\texture.tif"),

We need to make sure that all the files in our scene (like textures, geometry files, simulation caches etc) are under the same parent folder as our scene file. **(See pic1)**

For example if you have a "textures" folder in you project folder and you want to assign a texture

It has to be called with a path such as $HIP\textures\mytexture.tiff.

This is crucial for the farm to see where the file is as it has access to the project's path and subfolders only

My_Project
backup
textures
crystal
Type: Houdini hipnc file
sim_cache

Qube!
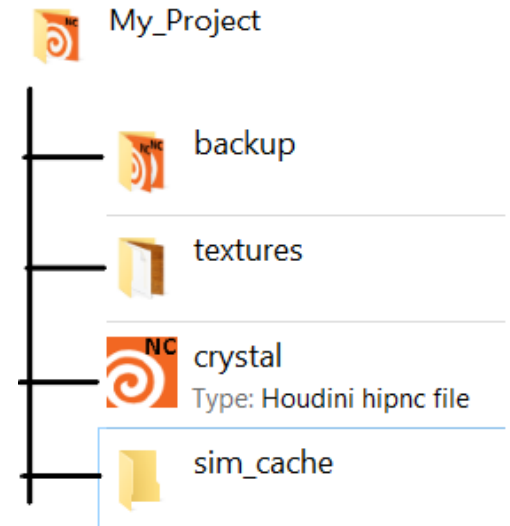
Uploading our project to the farm

- Launch WinScp from Apps anywhere.

- Once the application launches it will greet you with a server login window where you need to enter **tete** as the <u>Host Name</u> and your <u>user name and password</u> in the fields
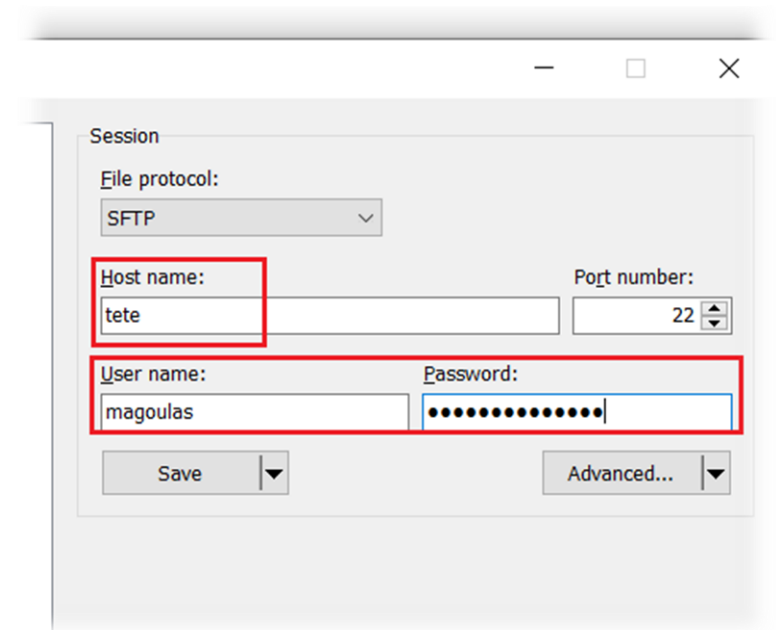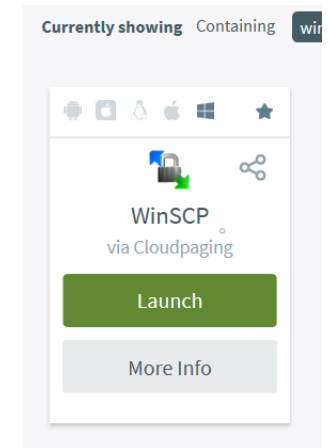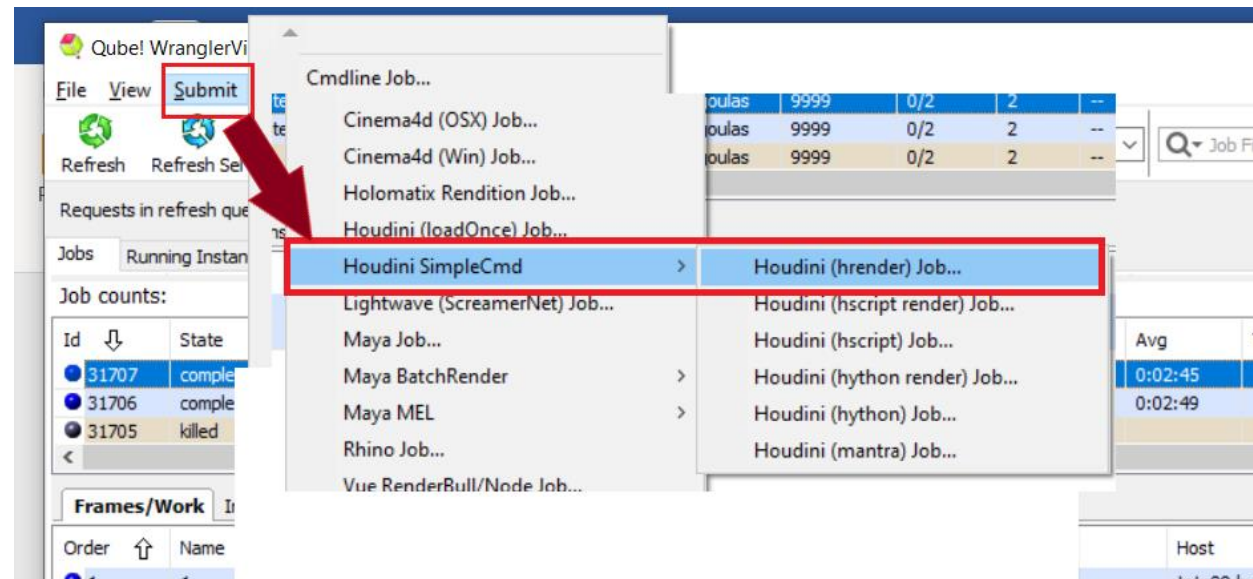
- Once you successfully log in you will be greeted with this double window environment. On the right side is where we upload our files for the renderfarm.
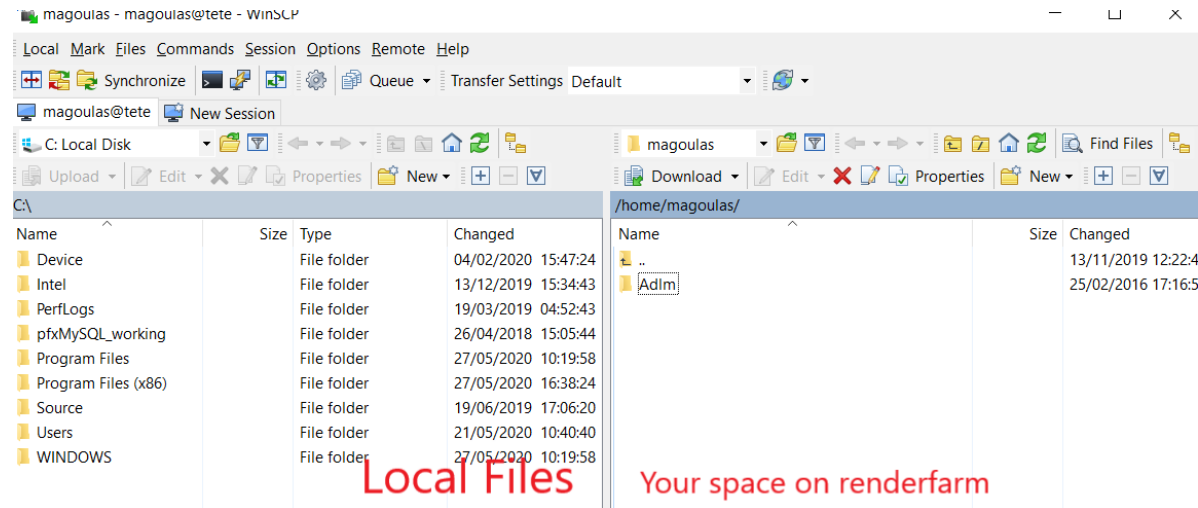
- Once we are done uploading the files we will run Qube from apps anywhere.
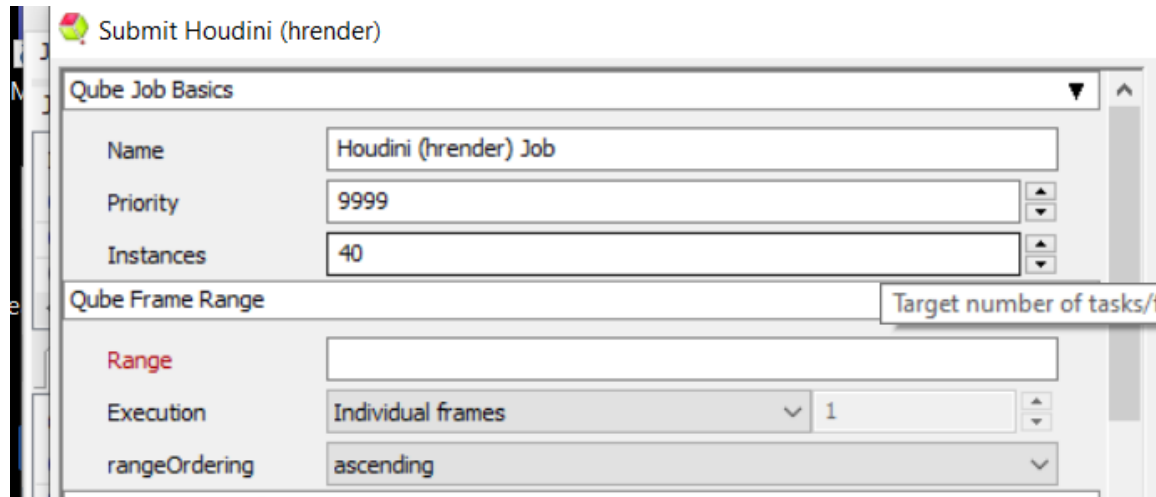
- From the top bar menu select:
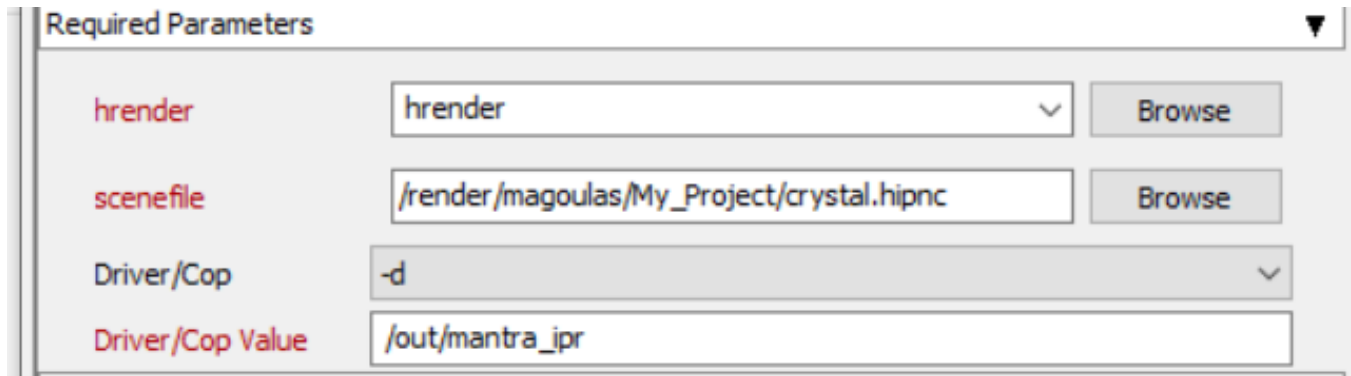
  Submit > Houdini SimpleCmd > Houdini (hrender) Job

- A new window will open where we will configure our render job.
- Now click on the "Expert Mode" at the bottom of this window to reveal a set of extra options.

- Set a name for your project, this can be anything.
- Set the instances to no more than **40**. This is important as the number of available instances in the render farm is limited and other users might want to use it.
- In the Range box, set the desirable amount of frames that you want to render.

- In the next set of parameters you need to enter the path to your **.hip** file that you wish to render
The default renderfarm path that needs to be followed is this:
- **/render/<Username>/<Projectfolder>/myscene.hipnc**

    where Username is your s or I number (including the letter) and project folder is the name of you project that we have uploaded on the render farm.

- Now, enter in the **Driver/Cop Value** field the name of the render node in your scene that you wish to render. If you have placed your mantra nodes in the standard Render network in your scene then you have to write it in the form of **/out/<mantra node name>**

- Next, in the **Cmd Template,** copy and paste the script below.
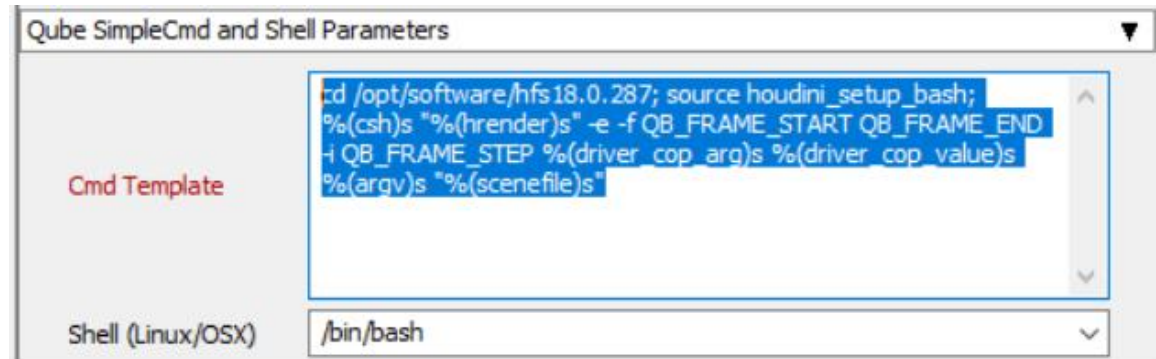
cd /opt/software/hfs18.0.287; source houdini_setup_bash; %(csh)s "%(hrender)s" -e -f QB_FRAME_START QB_FRAME_END -i QB_FRAME_STEP %(driver_cop_arg)s %(driver_cop_value)s %(argv)s "%(scenefile)s"

- Now see at the bottom of the Window and enable
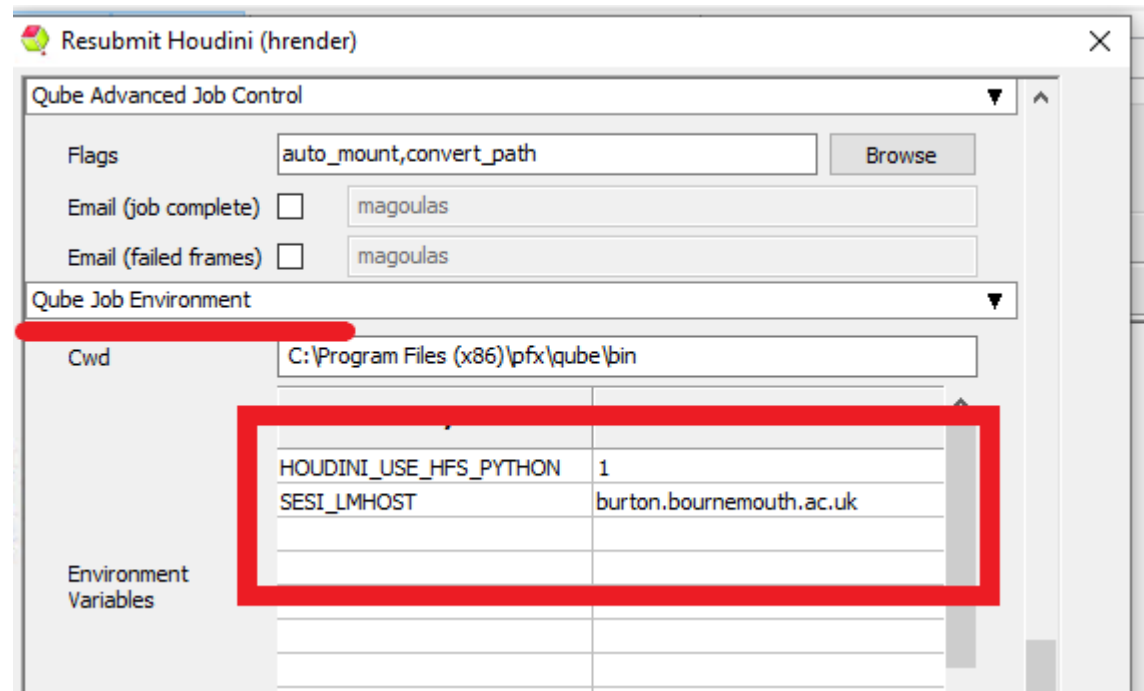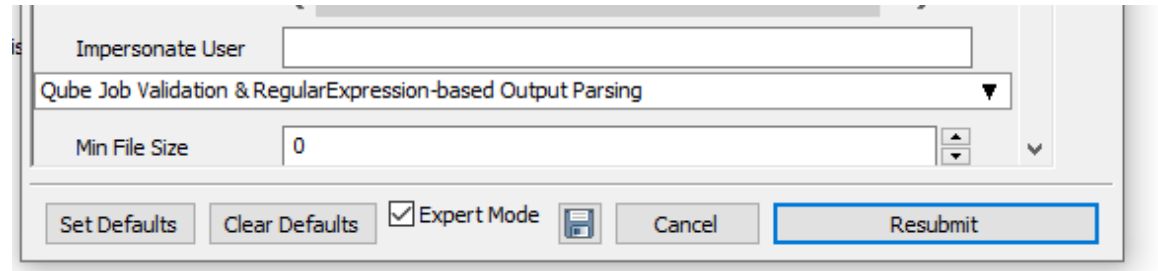 "Expert Mode"

- Search for the "Qube Job Environment" **tab**

and enter these two variables in the "Environment variables" box.

Enter in the "Key" section HOUDINI_USE_HFS_PYTHON and 1 as the value.

SESI_LMHOST and enter burton.bournemouth.ac.uk in the value box

You are ready to submit your Job.

Monitoring Your Job

Take notice of a few things that you can see in the Qube environment.

1. This is the Job window. This window will display all the Jobs that are in a que. You can filter what you see by selecting one or more of the filters in the toolbar (Incomplete, running, failed etc.).
2. This is the frames per selected job details. Where you can monitor render times and render status.

3. This is the user filter where you can enter a specific student number to see his render jobs or simply click on the User button to see the jobs that you have in queue.
4. In case that your frames start failing, check the Stdout and Stderr tab under the Job Logs tab. This is where you can see more information regarding missing textures or other reasons that might generate an error.

IMPORTANT:

Always monitor your renders and never let your render times pass the 2 hour mark per frame. It is of your responsibility to wrangle your renders and consider that other people will have to use the farm. If you get too many failing frames and/or long render times it might be a good idea to optimise your scenes.

When the render is over, you can go back to WinScp and refresh the renderfarm window. Your renders should be there and now you can transfer them over your local drive.