

ncca RenderFarm Tool

Houdini: Mantra \ HRender

Constantinos Glynos

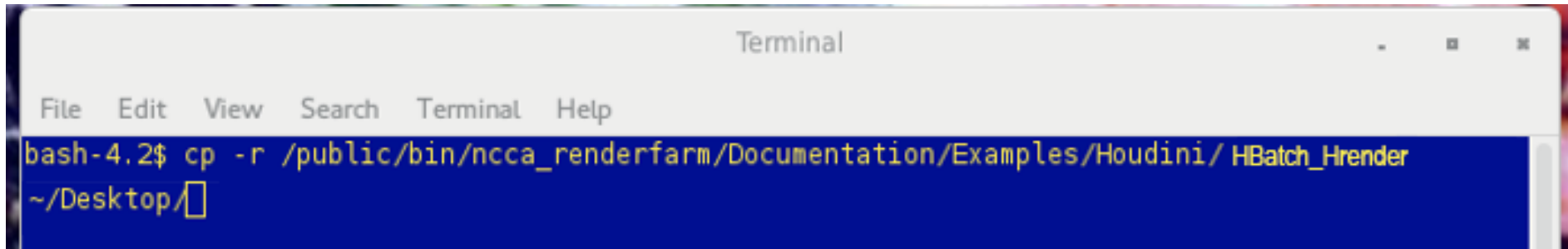
Michail Agoulas



Copy the example scene

run the copy (cp) command with the recursive flag (-r)

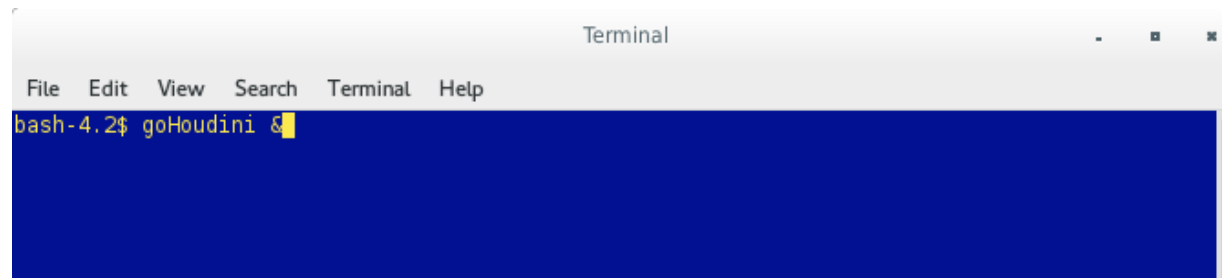
```
cp -r /public/bin/ncca_renderfarm/Documentation/Examples/Houdini/HBatch_HRender ~/Desktop
```

A screenshot of a macOS Terminal window. The title bar says "Terminal". The menu bar includes "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal text shows a prompt "bash-4.2\$" followed by the command "cp -r /public/bin/ncca_renderfarm/Documentation/Examples/Houdini/HBatch_HRender ~/Desktop/" and a cursor at the end of the line.

```
Terminal
File Edit View Search Terminal Help
bash-4.2$ cp -r /public/bin/ncca_renderfarm/Documentation/Examples/Houdini/HBatch_HRender
~/Desktop/
```

Open Houdini

goHoudini &

A screenshot of a macOS Terminal window. The title bar says "Terminal". The menu bar includes "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal text shows a prompt "bash-4.2\$" followed by the command "goHoudini &" and a cursor at the end of the line.

```
Terminal
File Edit View Search Terminal Help
bash-4.2$ goHoudini &
```

Set project directory

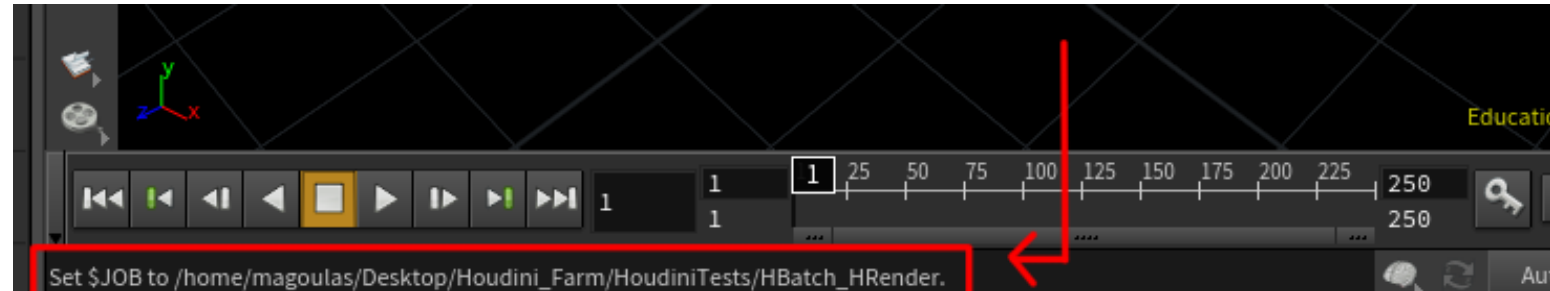
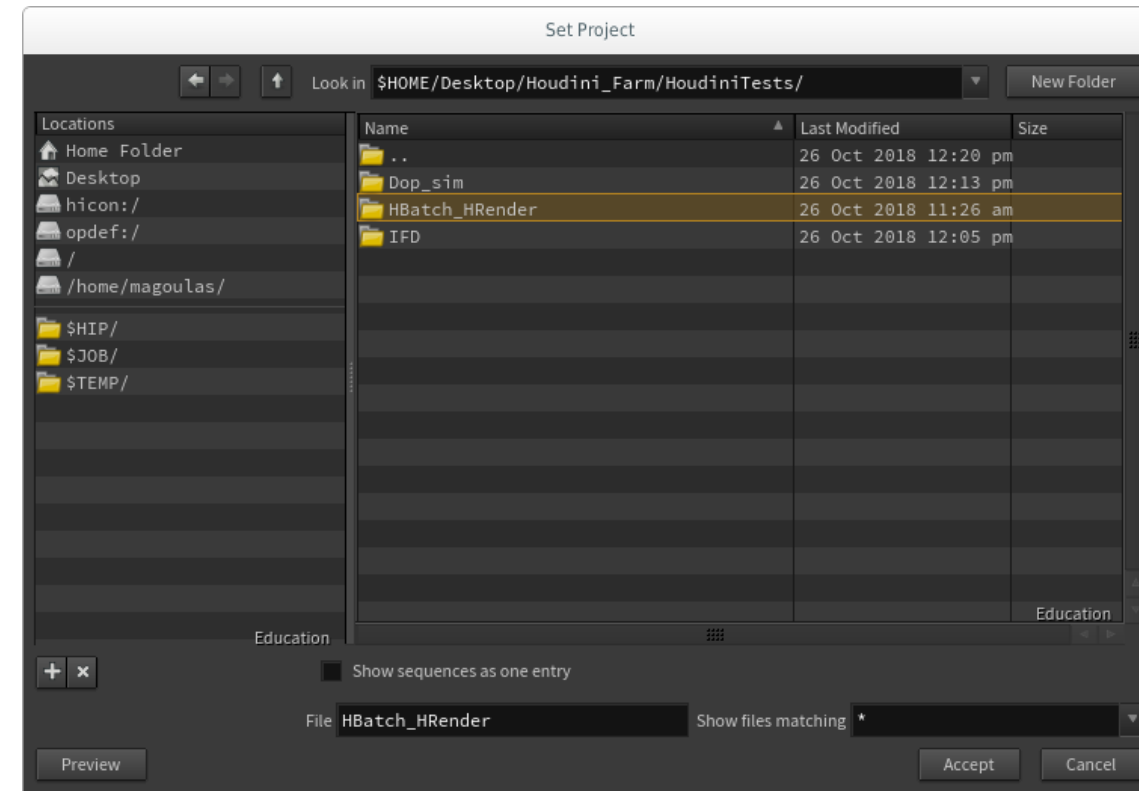
File -> Set Project...

Select the directory which is parent to all the project data files and folders and click Accept.

Do not dive in the directory that you plan to store your .hip projects and project files.

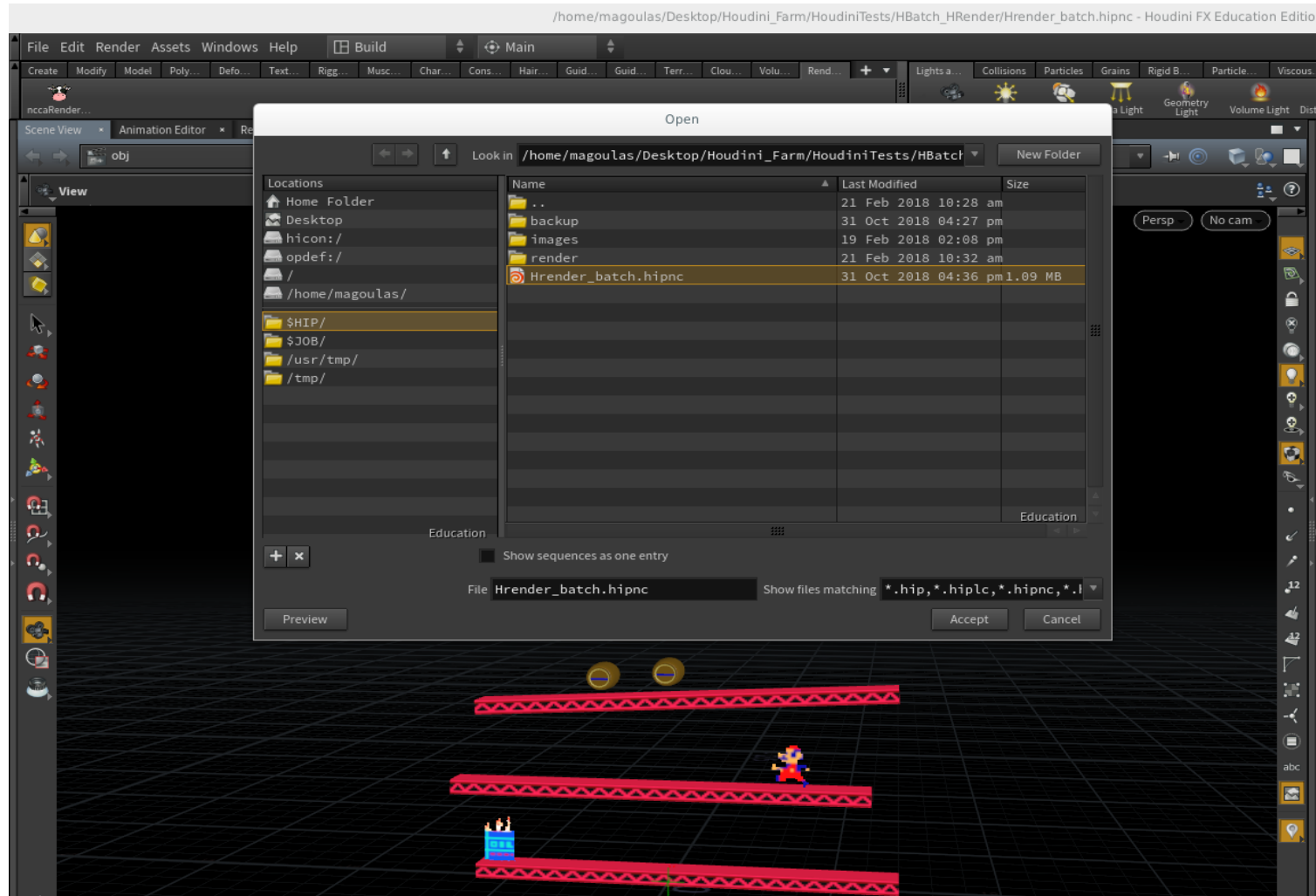
Click [Accept](#)

Now Houdini has set the folder of your project as the root folder.



Open the example scene

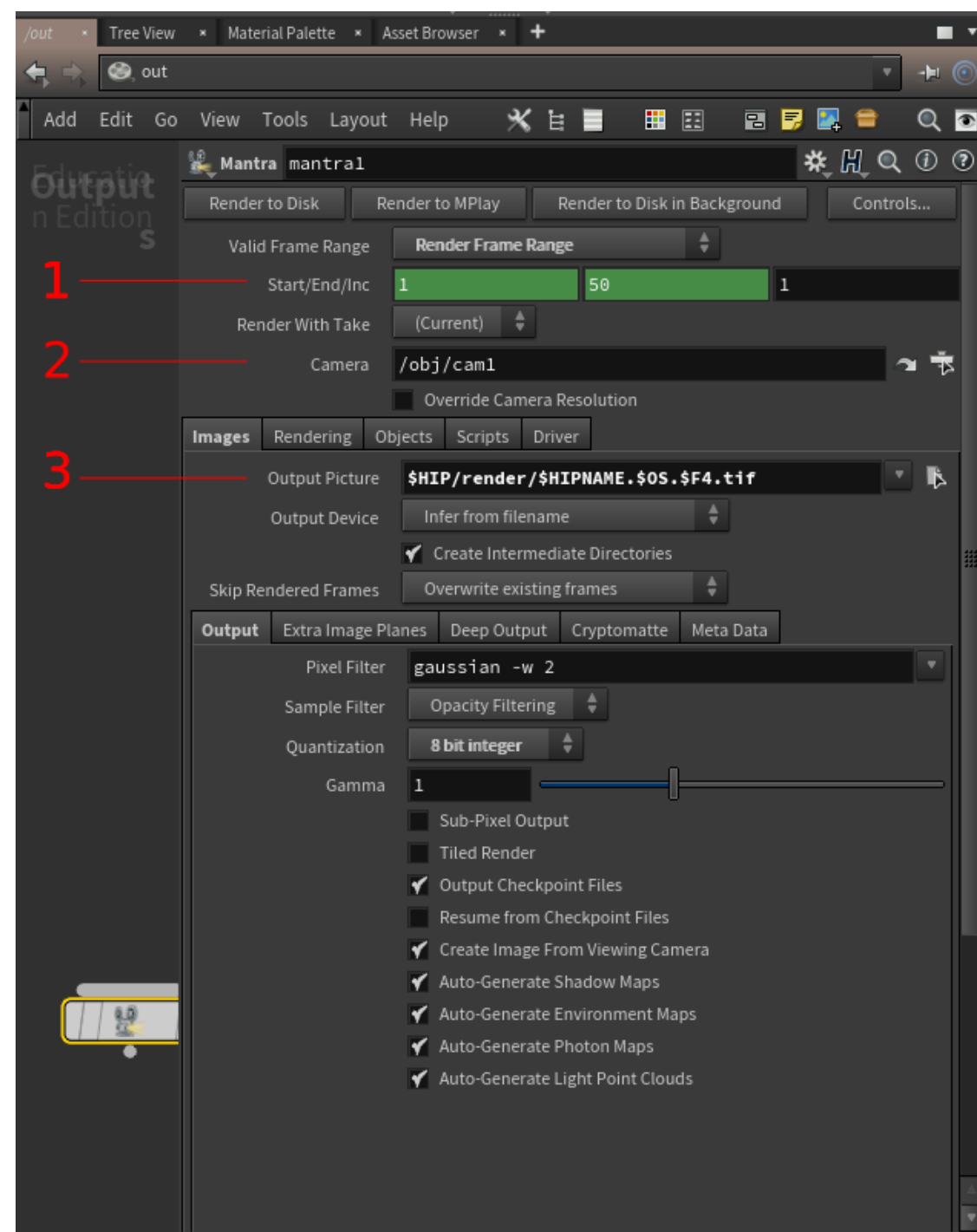
File -> Open -> Hrender_batch.hipnc



Check Mantra Settings

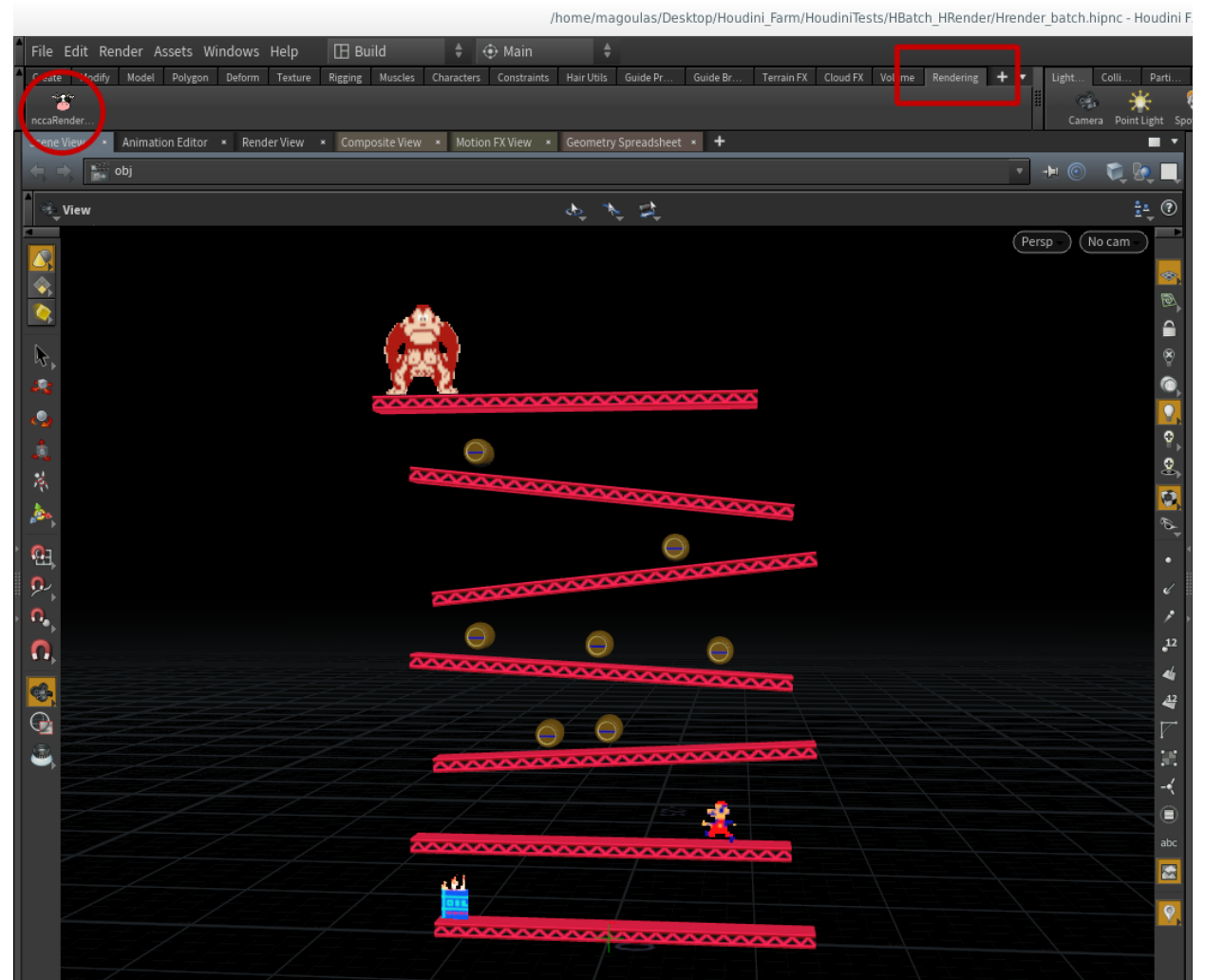
Check that your render settings are correct:

1. Select the desirable frame range
2. Select the take and the camera that you want to render from. (If you don't have a camera the render script will ask you to create one)
3. Select the render output folder and file name
(make sure that the path starts with \$HIP)



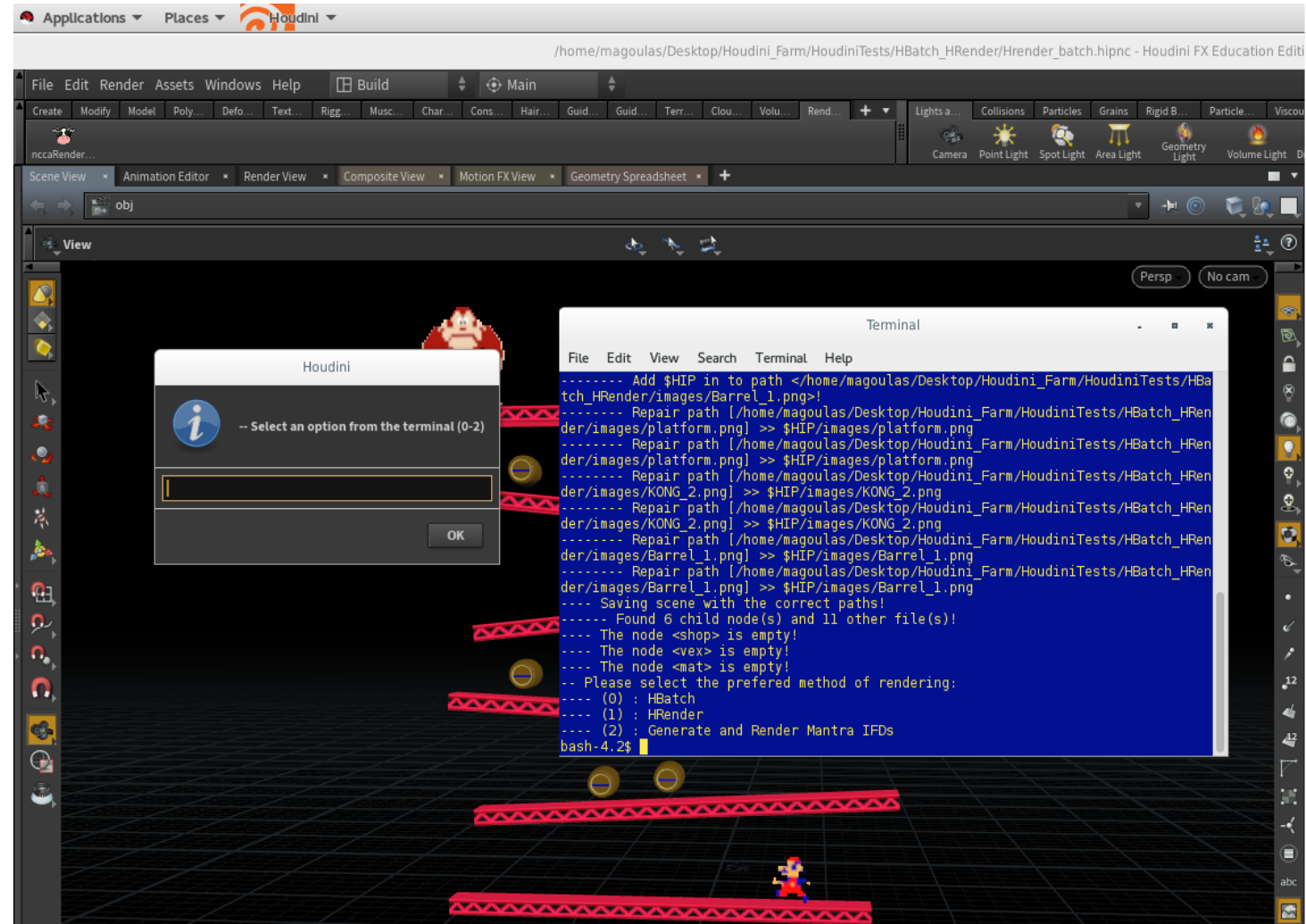
Let's render

- Press **Ctrl + S** to save the scene
- Go to the **rendering shelf**
- Hit the cow!



Using the tool

- Check your local disk space (quota), or **skip** if not needed.
- Check the **terminal** for any warnings about the version of the tool you are using.
- We will choose the HRender method by entering 1 in the window.



Using the tool

- Now the tool will ask you to enter your user password in order to connect to the tete server. It is the same as your student account.
- Once you enter your password the tool will start uploading the project files.
- Do not interrupt this process nor continue working on your project.

```
> Start Frame: 1
> End Frame: 50
> Frame Padding: 4
> Renderer Node: mantral
> Ifd info: ['False', '']
> Server: magoulas@tete:/home/magoulas

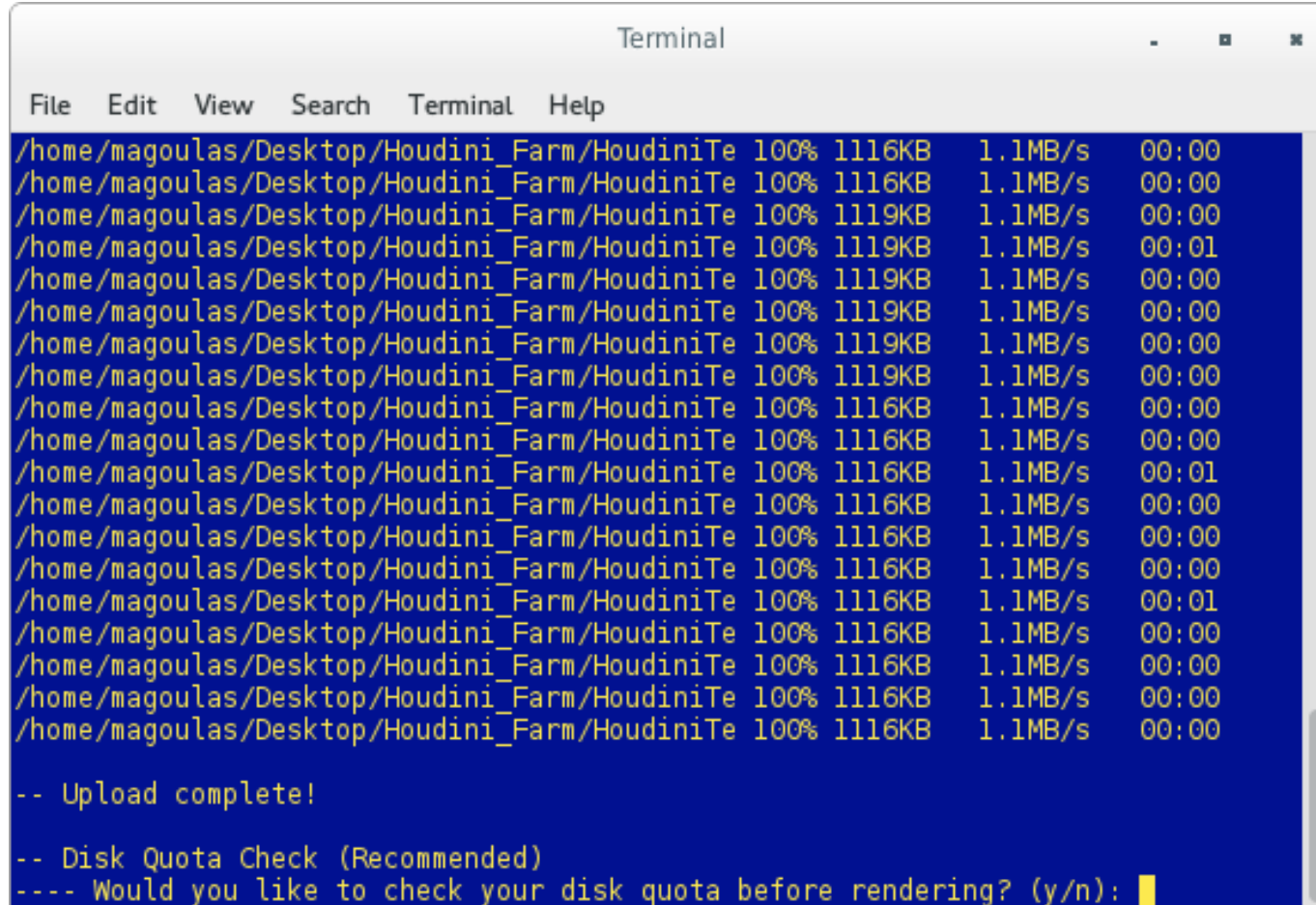
***** PLEASE DO NOT CONTINUE TO WORK ON YOUR PROJECT WHILE YOU ARE RUNNING THE R
ENDERFARM TOOL *****

-- Connecting to tete server.
Password: █
```

```
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1113KB 1.1MB/s 00:01
Entering /home/magoulas/Desktop/Houdini_Farm/HoudiniTests/HBatch_HRender/backup
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1113KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:01
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
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/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:01
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 0% 0 0.0KB/s --:-- ETA █
```


Using the tool

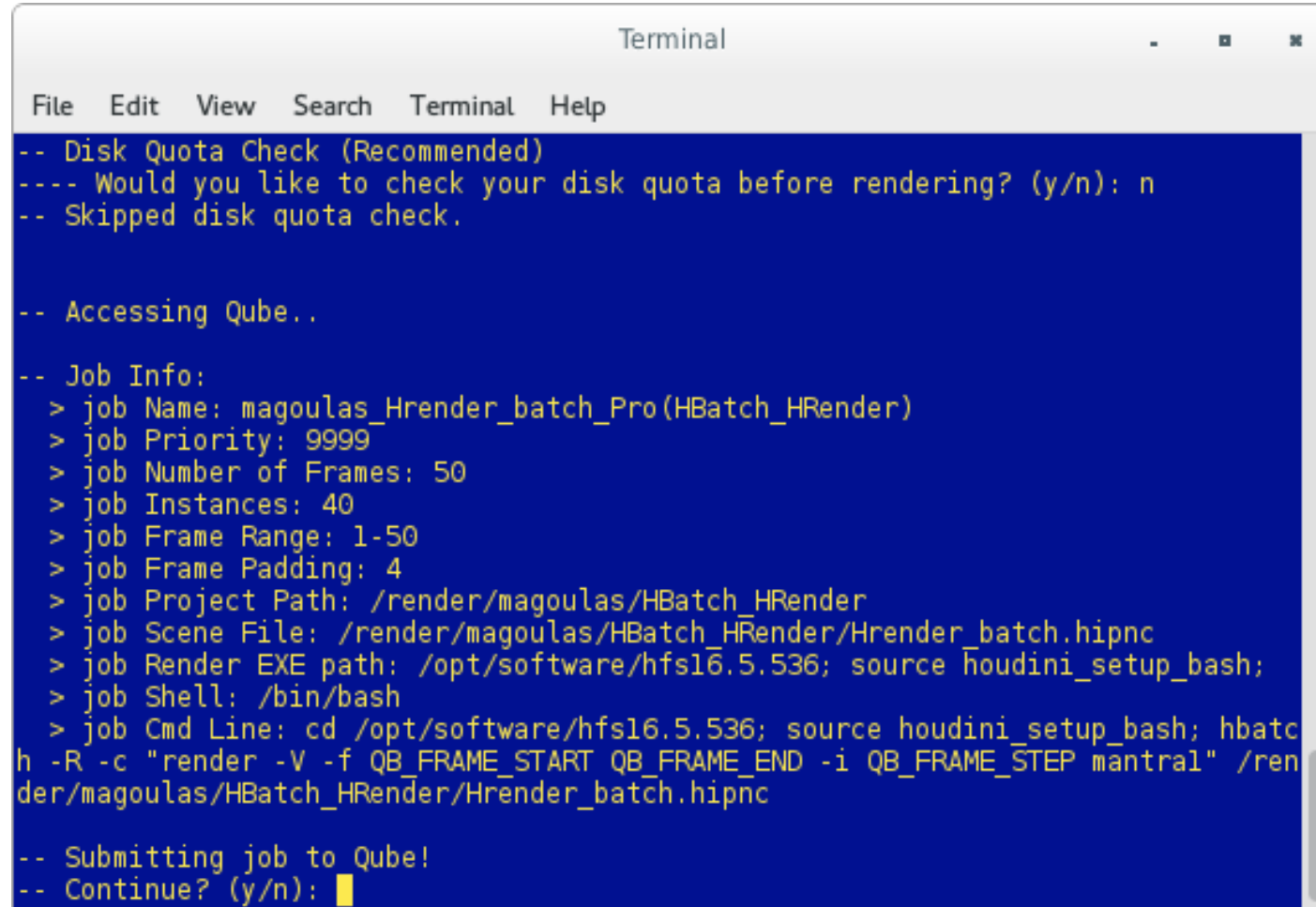
- Once the files are uploaded, the tool will prompt for a quota check on the server.
- If you do not have enough disk space (quota) available on the server, your renders will not be saved anywhere.
- [Skip](#) online quota check if you are sure you have enough space available.



```
Terminal
File Edit View Search Terminal Help
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:01
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1119KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:01
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:01
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
/home/magoulas/Desktop/Houdini_Farm/HoudiniTe 100% 1116KB 1.1MB/s 00:00
-- Upload complete!
-- Disk Quota Check (Recommended)
---- Would you like to check your disk quota before rendering? (y/n):
```

Using the tool

- The [output images directory](#) is set from within your Mantra Settings.
- Check the [Job info](#) data before submitting the job to Qube.
- Type [y](#) and [Enter](#) to continue.

A screenshot of a macOS Terminal window. The window has a title bar with the word "Terminal" and standard window controls. Below the title bar is a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The main area of the terminal has a dark blue background with white text. The text shows the execution of a command to submit a rendering job to Qube. It starts with a disk quota check, then displays job information for a job named "magoulas_Hrender_batch_Pro(HBatch_HRender)". The job details include priority, number of frames, instances, frame range, padding, project path, scene file, render EXE path, shell, and command line. The command line is a complex string of arguments for the "render" command. The prompt "Continue? (y/n):" is shown at the bottom with a yellow cursor.

```
Terminal
File Edit View Search Terminal Help
-- Disk Quota Check (Recommended)
--- Would you like to check your disk quota before rendering? (y/n): n
-- Skipped disk quota check.

-- Accessing Qube..

-- Job Info:
> job Name: magoulas_Hrender_batch_Pro(HBatch_HRender)
> job Priority: 9999
> job Number of Frames: 50
> job Instances: 40
> job Frame Range: 1-50
> job Frame Padding: 4
> job Project Path: /render/magoulas/HBatch_HRender
> job Scene File: /render/magoulas/HBatch_HRender/Hrender_batch.hipnc
> job Render EXE path: /opt/software/hfs16.5.536; source houdini_setup_bash;
> job Shell: /bin/bash
> job Cmd Line: cd /opt/software/hfs16.5.536; source houdini_setup_bash; hbatc
h -R -c "render -V -f QB_FRAME_START QB_FRAME_END -i QB_FRAME_STEP mantra1" /ren
der/magoulas/HBatch_HRender/Hrender_batch.hipnc

-- Submitting job to Qube!
-- Continue? (y/n):
```

Using the tool

- **Wrangle** your renders from the terminal.
- At this point you can **safely close the terminal** and wrangle your renders from **Qube**. But it's advised that you leave the terminal open.
- Now we **wait** for it to finish.
- You can **now continue** to work on your scene.

```
Terminal
```

File	Edit	View	Search	Terminal	Help
-worker< 02 >	-->	pending	-instance< 01 >	-->	running
-worker< 03 >	-->	pending	-instance< 02 >	-->	running
-worker< 04 >	-->	pending	-instance< 03 >	-->	running
-worker< 05 >	-->	pending	-instance< 04 >	-->	running
-worker< 06 >	-->	pending	-instance< 05 >	-->	running
-worker< 07 >	-->	pending	-instance< 06 >	-->	running
-worker< 08 >	-->	pending	-instance< 07 >	-->	pending
-worker< 09 >	-->	pending	-instance< 08 >	-->	pending
-worker< 10 >	-->	pending	-instance< 09 >	-->	pending
-worker< 11 >	-->	pending	-instance< 10 >	-->	pending
-worker< 12 >	-->	pending	-instance< 11 >	-->	pending
-worker< 13 >	-->	pending	-instance< 12 >	-->	pending
-worker< 14 >	-->	pending	-instance< 13 >	-->	pending
-worker< 15 >	-->	pending	-instance< 14 >	-->	pending
-worker< 16 >	-->	pending	-instance< 15 >	-->	pending
-worker< 17 >	-->	pending	-instance< 16 >	-->	pending
-worker< 18 >	-->	pending	-instance< 17 >	-->	pending
-worker< 19 >	-->	pending	-instance< 18 >	-->	pending
-worker< 20 >	-->	pending	-instance< 19 >	-->	pending
-worker< 21 >	-->	pending	-instance< 20 >	-->	pending
-worker< 22 >	-->	pending	-instance< 21 >	-->	pending
-worker< 23 >	-->	pending	-instance< 22 >	-->	pending
-worker< 24 >	-->	pending	-instance< 23 >	-->	pending
-worker< 25 >	-->	pending	-instance< 24 >	-->	pending
-worker< 26 >	-->	pending	-instance< 25 >	-->	pending
-worker< 27 >	-->	pending	-instance< 26 >	-->	pending
-worker< 28 >	-->	pending	-instance< 27 >	-->	pending
-worker< 29 >	-->	pending	-instance< 28 >	-->	pending
-worker< 30 >	-->	pending	-instance< 29 >	-->	pending
-worker< 31 >	-->	pending	-instance< 30 >	-->	pending
-worker< 32 >	-->	pending	-instance< 31 >	-->	pending
-worker< 33 >	-->	pending	-instance< 32 >	-->	pending
-worker< 34 >	-->	pending	-instance< 33 >	-->	pending
-worker< 35 >	-->	pending	-instance< 34 >	-->	pending
-worker< 36 >	-->	pending	-instance< 35 >	-->	pending
-worker< 37 >	-->	pending	-instance< 36 >	-->	pending
-worker< 38 >	-->	pending	-instance< 37 >	-->	pending
-worker< 39 >	-->	pending	-instance< 38 >	-->	pending
-worker< 40 >	-->	pending	-instance< 39 >	-->	pending
----- final frames(running) : final instances(running)					

Finishing off

- Once the renders are **complete**, the tool will prompt you to **open the project directory** on the server.
- Type **y** and **Enter** so that the tool can **open your project directory on the server**. Otherwise, type **n** and **Enter**.
- You might get asked to enter your student account credentials. **Enter** them so you can get access to the server.
- Navigate in the render folder or wherever you have told mantra to save the files and copy them to your computer.

