

Copy my test folder to play with

Close down any Houdini scenes on your machine first !!

then..

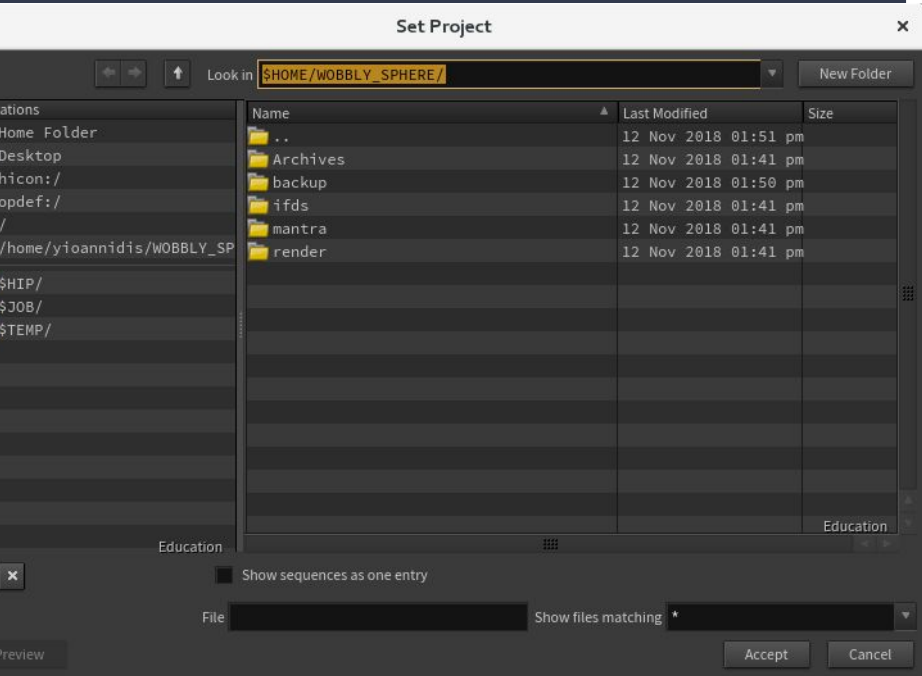
Open a terminal and paste the following in:

1. `/public/mapublic/loannisloannidis/1819/WOBBLY_SPHERE/copyAndStart.sh`

Then

File -> Set Project → WOBBLY_SPHERE

File -> Save



The Render farm

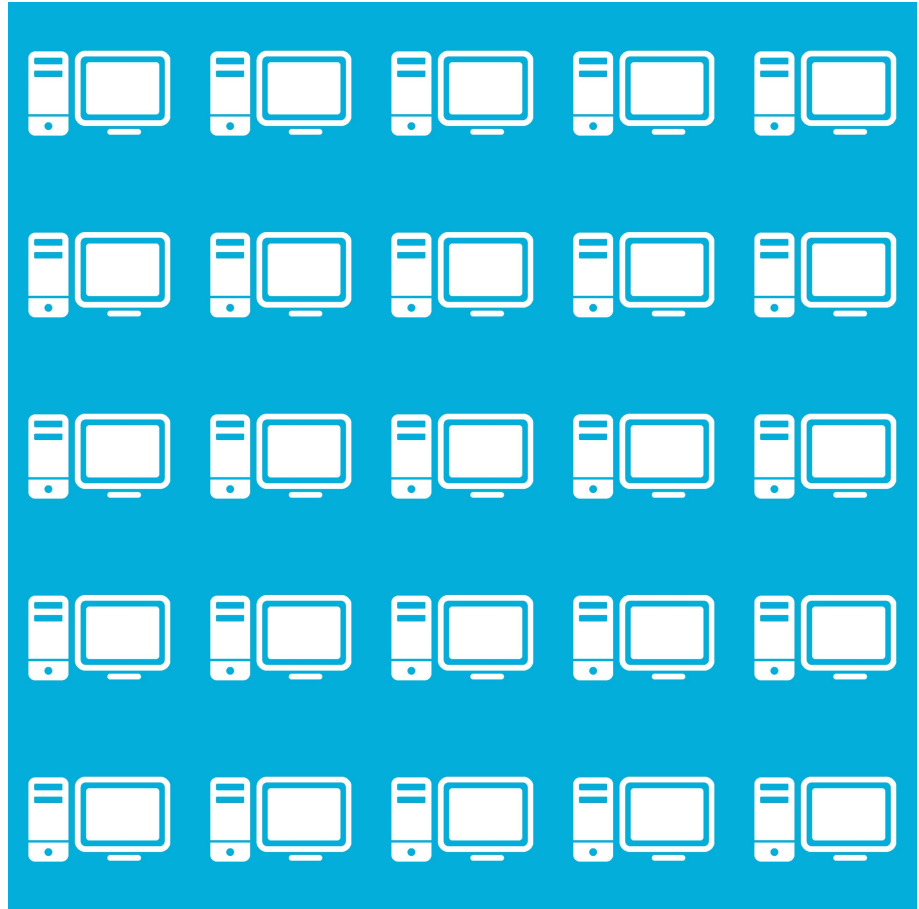
Helps us render faster!

Yannis Ioannidis
Demonstrator
National Centre for Computer Animation
Faculty of Media & Communication
Bournemouth University
Email: yioannidis@bournemouth.ac.uk



What is it?

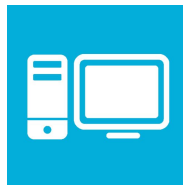
A bunch of
computers
dedicated for
rendering!



Where are these computers?

In a room somewhere in the University!

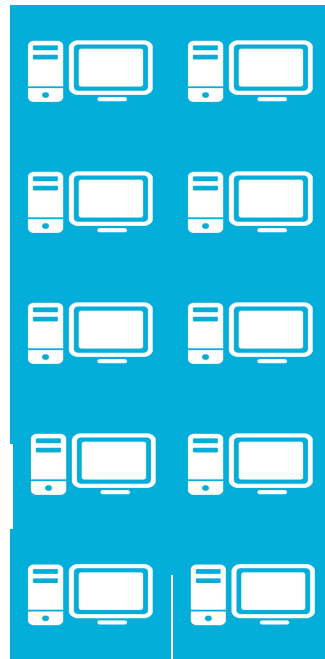
You are here!



Render remotely ?

Your regular
Home area

Render farm



Your **RENDER FARM**
Home area

Copy project folder
to the Render farm
Home area!

Your **regular** Home
area



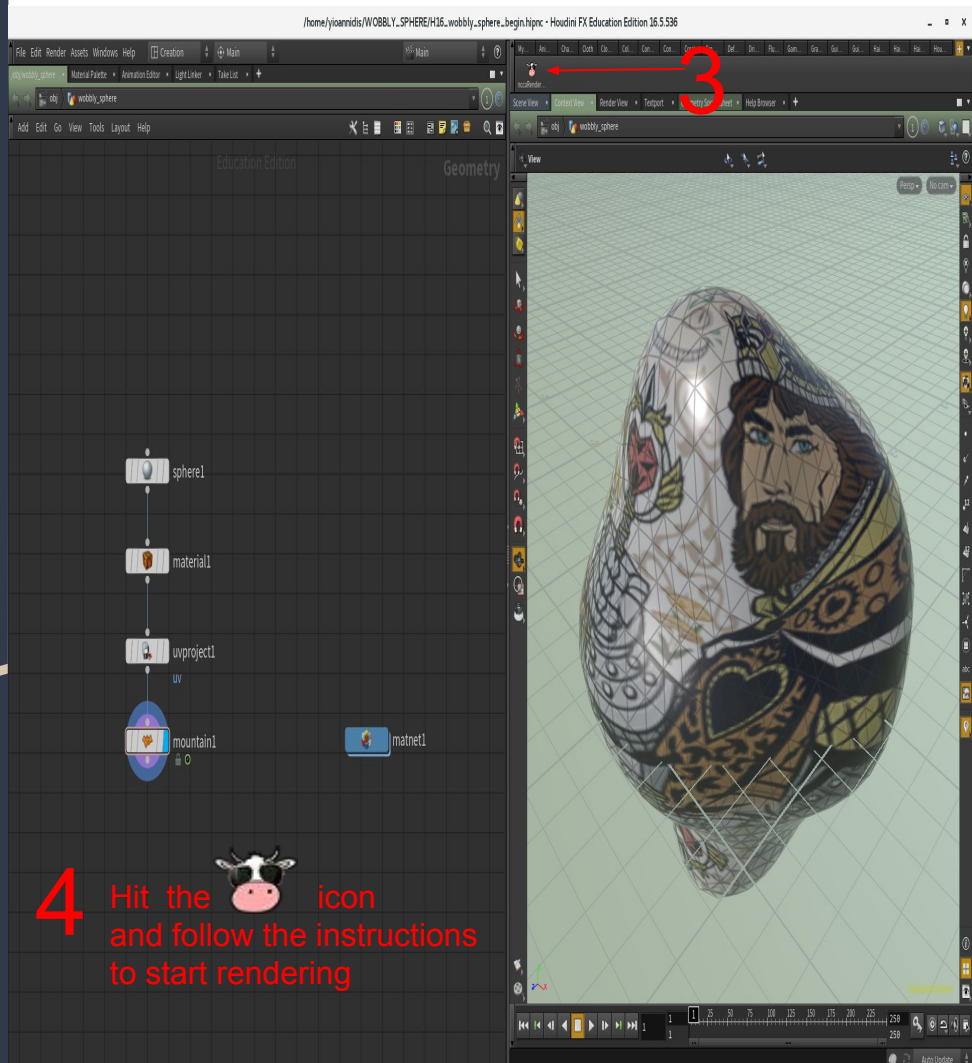
WOBBLY_SCENE folder



Your **RENDER FARM**
Home area



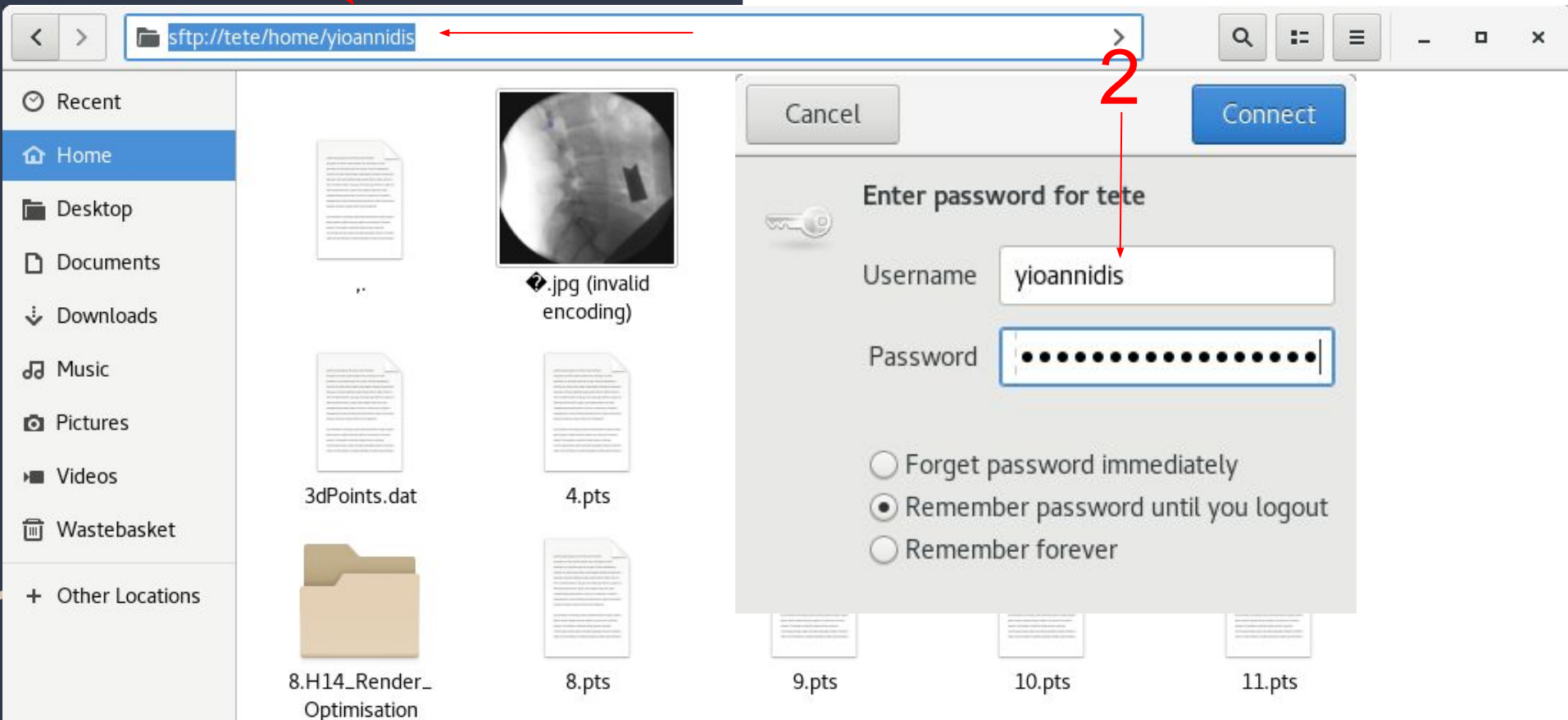
WOBBLY_SCENE folder



- 1) Go to Places → Home
- 2) Click anywhere in the window and hit Ctrl + L
- 3) On the editable address type: sftp://tete/home/yourusername
- 4) The window below should pop up, so type your credentials in and hit Connect

1

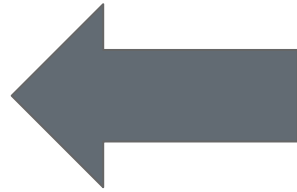
Replace yioannidis
with your username



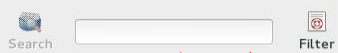
The renderfarm software



qube!



Command on the terminal: **goQube &**



Requests in refresh queue: 0

Jobs Running Instances Workers

Job counts: Displaying: 18 Retrieved: 18 Total in Qube: 1,436

Id	% Done	Name
26934	100% (5/5)	1819-MantraCMDRange_v16.5.536
26932	100% (5/5)	1819-Hrender_GenerateIFDs16GenerateIFDs_v16.5.536
26930	100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v16.5.536
26929	100% (5/5)	1819-Hrender-WOBBLY_SPHERE_v16.5.536
21243	100% (10/10)	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Render IFDs>)
21241	100% (10/10)	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Gen IFDs>)
21183	100% (10/10)	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE)
21092	100% (5/5)	MantraCMDRange16_0_705
21080	100% (5/5)	HRENDER_GenerateIFDs16GenerateIFDs16_0_705
21078	100% (5/5)	HBATCH_CMDRANGE_WOBBLY_SPHERE_16_0_705
21076	100% (25/25)	Hrender-WOBBLY_SPHERE_v16.0.705
20735	100% (25/25)	testSim_HBATCH_CMDRANGE_16_0_557-CUSTOM-ROP
20731	0% (0/24)	yantest_ballBounce_Pro(renderman)
18862	0% (0/40)	yanRendermanRISestCmdRange
15585	100% (40/40)	yanRendermanRISestCmdRange
13173	100% (25/25)	testMantraLogout
11977	100% (100/100)	VRAY_Yan_LogSmth
11969	100% (100/100)	VRAY_Yan

Job Properties Job Logs Output Time Graphs Job Internals

Status: Complete

Error Logs

General Command Output

Job Times

Submission time : 2018-11-10 11:18:53
Start time : 2018-11-10 11:18:53
Elapsed time : 0:01:05
Completion time : 2018-11-10 11:19:58
CPU-Minutes : 0:04:49
Average frame time : 0:00:52

Basic Job Properties

id : 26934
name : 1819-MantraCMDRange_v16.5.536
prototype : cmdrange
user : yioannidis
priority : 9999
instances : 5
tasks : 5 (5 complete)

Worker Selection Properties

cluster : /
restrictions :
reservations : host.processors=1
requirements :
hosts :
groups :
omit hosts :
omit groups :

Notes

Frames/Work		Instances						
Order	Name	Status	Images	Started	Elapsed	Completed	Host	Instance Id
1	1	complete		2018-11-10 11:18...	0:00:49	2018-11-10 11:19...	tete09	0
2	2	complete		2018-11-10 11:18...	0:00:51	2018-11-10 11:19...	tete09	1
3	3	complete		2018-11-10 11:19...	0:00:54	2018-11-10 11:19...	tete09	2

Checking if local host is the Qube MySQL server...

Local host does not have a running MySQL server.

MySQL Server IP Address = 172.16.77.245 hostname = tete-haynamuth-ark

Qube WranglerView 6.5-2, PipelineFX 2018

Last log message: Disabling "SELECTED items" automatic refresh timer.

Some terminology!

Nodes/Workers= Computers

Slots = Cores (frame capacity)

Job = User frame range to render

Instances = **In parallel running**
number of frames

We have **16** NODES

Each NODE has **20** CORES/SLOTS

Each CORE/SLOT RENDERS **1** FRAME

So,

Each NODE/MACHINE :

RENDERS 20 FRAMES in parallel max

Hence,

15 nodes x 20 frames each node = 300

+

1 test node x 40 frames = 40

frames can be rendered in parallel on the farm **overall !!**

Render from the command line!

WHY ???

- We need a way to instruct Houdini to start rendering
R E M O T E L Y !
- No Houdini graphical user interface on the farm!
- Qube (the renderfarm software)**understands**,
 - **only commands**
 - **not clicks (no GUI on the farm)**
- No render button to press in Houdini on the farm
- We can trigger our renders through terminal commands

3 different commands to Render

locally or on the farm

HRENDER

HBATCH

MANTRA

HRENDER

HRENDER [uses Houdini licence]

INPUT : HIP/HIPNC scene files

Renders either the Live Houdini Node Network

Can generate IFDs for later rendering with mantra

Render The Live Network LOCALLY

Pros:

- Easy
- Straightforward

Cons

- Heavy
- Not that flexible but still fine to use

```
hrender -e -f 1 10 -w 640 -h 480 -R -v -d mantra1 H17_wobbly_sphere_begin.hipnc
```

-e -f 1 10	->	Frame range start and end
-w 640 -h 480	->	Pixels Width & Height of Image
-R	->	Use non-graphics license token
-v	->	Run in verbose mode
-d	->	Output Driver

Prepare our local houdini scene/project to HRender on the farm?

- Rename all absolute paths in your scene nodes to \$HIP **relative** equivalent ones!

Replace ALL of your houdini scene nodes' absolute paths

For example..in your ROP OUT NETWORK MANTRA NODE's image path

`/home/yioannidis/Downloads/WOBBLY_SPHERE/WOBBLY_SPHERE/render/$HIPNAME.$OS.$F4.exr`

becomes..

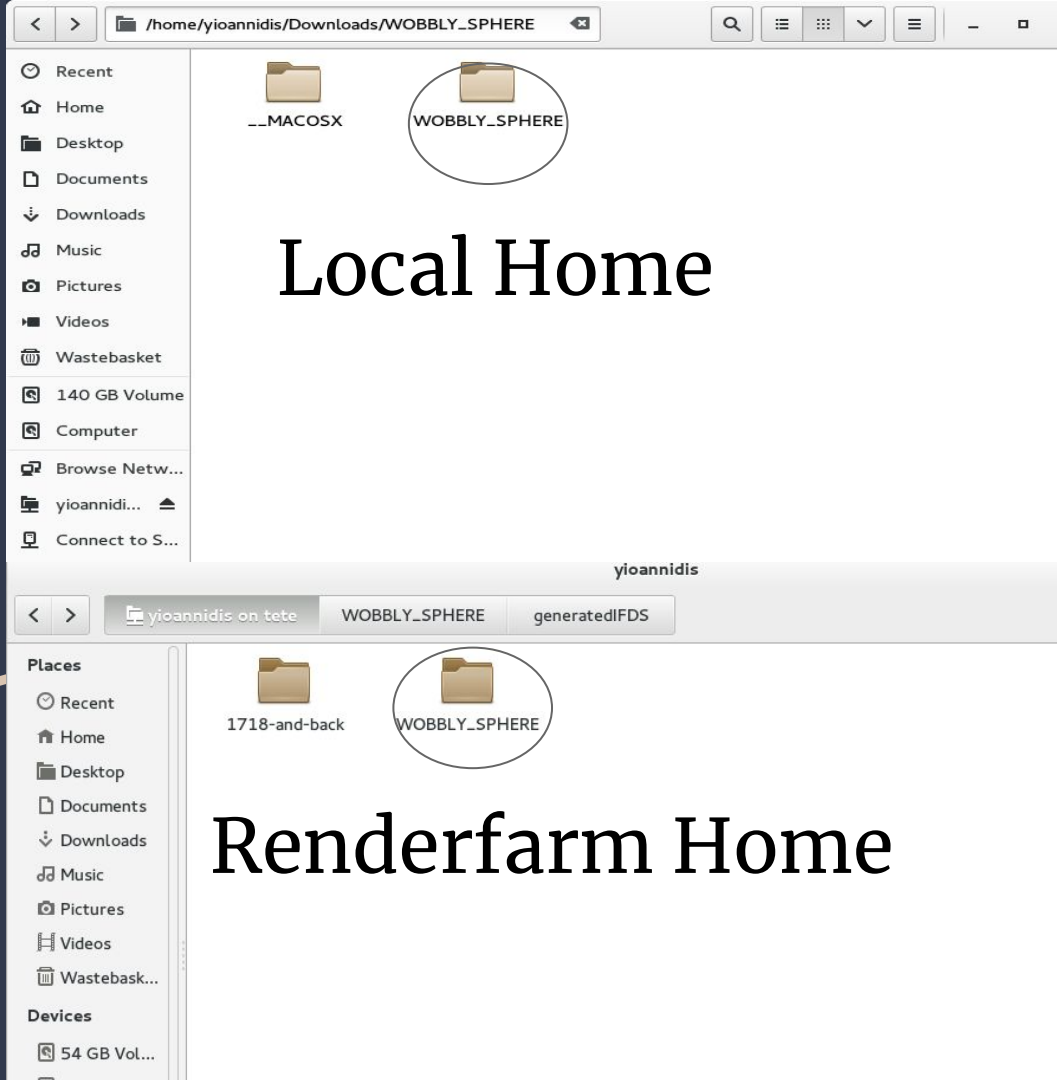
`$HIP/render/$HIPNAME.$OS.$F4.exr`

Notice `/home/yioannidis/Downloads/WOBBLY_SPHERE/WOBBLY_SPHERE` is replaced by

`$HIP`

- Place all project dependencies to 1 project folder

Copy & paste the local
WOBBLY_SPHERE
project folder to
Renderfarm Home
area



Fire up Qube and Resubmit a HRender Job

open terminal and type: goQube &

Click **User** & and in the textbox type **yioannidis** + Hit **Enter**

Find the Job with ID **27786**

Right click on the Job & Edit the fields & Click Resubmit :

The screenshot shows the Qube Manager View 6.8-4 interface. At the top, there's a menu bar with 'View', 'Submit', 'Administration', and 'Help'. Below it is a toolbar with buttons for 'Refresh', 'Refresh Sel', 'Incomplete', 'Running', 'Failed', 'Killed', 'Complete', 'User', and a search bar. The 'User' button is circled, and an arrow points to the 'yioannidis' dropdown menu. The main area displays a table of jobs with columns for '% Done', 'Name', and 'Status'. The job with ID 27786 is highlighted. To the right, the 'Job Properties' panel shows details for Job ID: 27839, Status: Complete. Below the job list, there's a 'Frames/Work' section with a table showing job details like Name, Status, Auto-retry, Images, Started, Elapsed, Completed, Host, and Instance ID.

% Done	Name	Status
100% (5/5)	1819-MantraCMDRange_v17.0.416	Complete
100% (5/5)	1819-Hrender_GenerateFDs16GenerateFDs_v17.0.406	Complete
100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v17.0.406	Complete
100% (5/5)	1819-Hrender-WOBBLY_SPHERE_v17.0.416	Complete
100% (5/5)	1819-MantraCMDRange_v16.5.536	Complete
100% (5/5)	1819-Hrender_GenerateFDs16GenerateFDs_v16.5.536	Complete
100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v16.5.536	Complete
100% (5/5)	1819-Hrender-WOBBLY_SPHERE_v16.5.536	Complete
100% (10/10)	yioannidis.H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Render IFDs>)	Complete
100% (10/10)	yioannidis.H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Gen IFDs>)	Complete
100% (10/10)	yioannidis.H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE)	Complete
100% (5/5)	MantraCMDRange16_0.705	Complete
100% (5/5)	HRENDER_GenerateFDs16GenerateFDs16_0.705	Complete
100% (5/5)	HBATCH_CMDRANGE_WOBBLY_SPHERE_16_0.705	Complete
100% (25/25)	Hrender-WOBBLY_SPHERE_v16.0.705	Complete
100% (25/25)	testSim_HBATCH_CMDRANGE_16_0.557-CUSTOM-ROP	Complete
0% (0/24)	yantest_ballBounce_Pro(renderman)	Not Started
0% (0/40)	yanRendermanRISestCmdRange	Not Started
100% (40/40)	yanRendermanRISestCmdRange	Complete
100% (25/25)	testMantraLogout	Complete
100% (100/100)	VRAY_Yan_LogSmith	Complete
100% (100/100)	VRAY_Yan	Complete

Order	Name	Status	Auto-retry	Images	Started	Elapsed	Completed	Host	Instance ID
1	1	complete	0	0	09:52:49 am	0:01:05	09:53:54 am	tete09	0
2	2	complete	0	0	09:52:50 am	0:01:06	09:53:56 am	tete09	1
3	3	complete	0	0	09:52:50 am	0:01:07	09:53:57 am	tete09	2

Qube Job Basics

Name → 1819-Hrender-WOBBLY_SPHERE_v16.5.536

Priority 9999

Instances → 5

Max Instances -1

Qube Frame Range

Range → 1-5

Preview Frames Submission

Preview Priority -1

Required Parameters

hrender hrender Browse

scenebite → /render/yioannidis/WOBBLY_SPHERE/H16_wot Browse

Driver/Cop -d

Driver/Cop Value /out/mantra1

Optional Parameters

R ☒

Qube SimpleCmd and Shell Parameters

```
cd /opt/software/hfs16.5.536; source houdini_setup_bash;%  
[cble "%(hrender)" -o -f OR FRAME START OR FRAME END
```

Frame Timeout -1

FlightCheck scripts

Job Pre-flight Browse

Job Post-flight Browse

Work Pre-flight Browse

Work Post-flight Browse

Qube Job Delayed Start

hh:mm M/D/Y Time and Date

Qube Job Environment

Cwd → /home/yioannidis

Key	Value
HOUDINI_USE_H	1
SESLMHOST	burton.bournemouth.ac.uk

Environment Variables

Impersonate User

Qube Job Validation & Render-Engine based Output Device

Resubmit a HRender job

Edit the following fields in the Qube Resubmit Dialog:

1. •**NAME:** YOURUSERNAME _Hrender
2. •**Instances:** <=40
3. •**Range:** 1-5
4. •**scenefile:**

Change from

/render/**yioannidis**/WOBBLY_SPHERE/H17_wobbly_sphere_begin.hipnc

To

/render/**yourusername**/WOBBLY_SPHERE/H17_wobbly_sphere_begin.hipnc

Notice how **/home/yourusername** becomes **/render/.....**

5. •**NAME:** YOURUSERNAME _Hrender
6. •**Cwd:** /home/ YOURUSERNAME
7. •**scenefile:** /render/YOURUSERNAME/scenfile.hipnc
8. •**Driver/Cop Value:** /out/mantra1

HBATCH

INPUT : HIP/HIPNC scene files
renders either the Live Houdini Node Network
OR Generates IFDs for later rendering with mantra

Opens the scene in Hscript mode (command line mode)

Pros:

- Integrating Rendering as part of a workflow
- Command Line, flexible, customizable through HScript commands
- -R option will force a non graphical token to be used instead of a full graphical Houdini licence
- Unlimited non graphical tokens to use

Cons

- Not as easy as HRender

Example HBatch commands

<http://www.sidefx.com/docs/houdini/commands/>

```
echo $HIPNAME
```

```
echo $OS
```

```
echo $RFSTART
```

```
echo $RFEND
```

Open text port & test the following

```
/ -> ls
```

```
/ -> cd obj
```

```
/obj -> ls
```

```
/obj -> opadd geo mygeo
```

```
/obj -> opparm mygeo t 1 1 1
```

On the terminal locally execute the following:

```
hbatch H17_wobbly_sphere_begin.hipnc
```

```
render -V -I -f 1 2 mantra1
```

When done, hit Ctrl+D or Ctrl+C to get back to terminal mode

Let's test HBatch on the Render farm

open terminal and type: goQube &

Click **User** & and in the textbox type **yioannidis** + Hit Enter

Find the Job with ID **27836**

Right click on the Job & Edit the fields & Click Resubmit :

The screenshot shows the Qube! WranglerView 6.8-4 interface. The top menu bar includes File, View, Submit, Administration, and Help. Below the menu is a toolbar with icons for Refresh, Refresh Sel, Incomplete, Running, Failed, Killed, Complete, and User. The User dropdown menu is open, showing the username 'yioannidis'. A search bar is located to the right of the User dropdown. The main window displays a list of jobs with columns for Job ID, % Done, and Name. Job 27839 is highlighted. The right panel shows the details for Job ID 27839, including Job Times, Basic Job Properties, Worker Selection Properties, and Notes.

Qube! WranglerView 6.8-4 [Supervisor v6.5-2: tete (20 licenses)]

Requests in refresh queue: 0

Farm Usage: running instances: 0 workers: 6/16 slots: 27/340

Jobs Workers

job counts: Displaying: 22 Retrieved: 22 Total in Qube: 739

Id	% Done	Name
27839	100% (5/5)	1819-MantraCMDRange.v17.0.416
27838	100% (5/5)	1819-Hrender_GenerateFDs16GenerateFDs.v17.0.406
27836	100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE.v17.0.406
27786	100% (5/5)	1819-Hrender-WOBBLY_SPHERE.v17.0.416
26934	100% (5/5)	1819-MantraCMDRange.v16.5.536
26932	100% (5/5)	1819-Hrender_GenerateFDs16GenerateFDs.v16.5.536
26930	100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE.v16.5.536
26929	100% (5/5)	1819-Hrender-WOBBLY_SPHERE.v16.5.536
21243	100% (10/10)	yioannidis_H16_wobbly_sphere-complete_Pro(WOBBLY_SPHERE <Render IFDs>)
21241	100% (10/10)	yioannidis_H16_wobbly_sphere-complete_Pro(WOBBLY_SPHERE <Gen IFDs>)
21183	100% (10/10)	yioannidis_H16_wobbly_sphere-complete_Pro(WOBBLY_SPHERE)
21092	100% (5/5)	MantraCMDRange16.0.705
21080	100% (5/5)	HRENDER_GenerateFDs16GenerateFDs16.0.705
21078	100% (5/5)	HBatch_CMDRANGE_WOBBLY_SPHERE_16.0.705
21076	100% (25/25)	Hrender-WOBBLY_SPHERE.v16.0.705
20735	100% (25/25)	testSim-HBatch_CMDRANGE_16.0.557-CUSTOM-ROP
20731	0% (0/24)	yanTest_LaBIBounce.Pro(renderman)
18862	0% (0/40)	yanRendermanRISetCmdRange
15585	100% (40/40)	yanRendermanRISetCmdRange
13173	100% (25/25)	testMantraLogout
11977	100% (100/100)	VRAY_Yan-Log5mth
11969	100% (100/100)	VRAY_Yan

Job Properties Job Logs Output Time Graphs Job Internals

Job Id: 27839
Status: Complete

Job Times

Submission time : 2019-01-14 09:52:43
Start time : 2019-01-14 09:52:44
Elapsed time : 0:01:13
Completion time : 2019-01-14 09:53:57
CPU-Minutes : 0:05:54
Average frame time : unknown

Basic Job Properties

name : 1819-MantraCMDRange.v17.0.416
prototype : cmdrange
user : yioannidis
priority : 9999
instances : 5
tasks : 5 (5 complete)

Worker Selection Properties

cluster : /
restrictions : /
reservations : host.processors=1
requirements :
hostorder : +host.processors.avail
hosts :
groups :
omit hosts :
omit groups :

Notes

Frames/Work Instances

Order	Name	Status	Auto-retri	Images	Started	Elapsed	Completed	Host	Instance Id
1	1	complete	0		09:52:49 am	0:01:05	09:53:54 am	tete09	0

Resubmit cmdrange

Qube Job Basics

Name

1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v17.0.406

Priority

9999

Instances

5

Max Instances

-1

Qube Frame Range

Range

1-5

Preview Frames Submission

Preview Priority

-1

Parameters

Command

cd /tmp; echo "render -V -f QB_FRAME_START QB_FRAME_END mantra1" > \${UID}-QB_FRAME_NUMBER;
cd /opt/software/hfs17.0.416; source houdini_setup_bash;
hbatch -R -c /tmp/\${UID}-QB_FRAME_NUMBER /render/

Shell (Linux/OSX)

/bin/bash

Frame Padding

0

Qube Worker Selection

Priority Cluster

/

Browse

Resubmit

Browse

Set Defaults

Clear Defaults

☐ Expert Mode

Cancel

Resubmit

Resubmit cmdrange

Qube Advanced Job Control

Flags

auto_mount

Browse

Email (job complete)

☐

yioannidis

Email (failed frames)

☐

yioannidis

FlightCheck scripts

▲

Qube Job Delayed Start

▲

Qube Job Environment

▼

Cwd

/home/yioannidis

Environment Variables

Key	Value
HOUDINI_USE_1	
SESLMHOST	burton.bournemouth.ac.uk

Qube Job Validation & RegularExpression-based Output Parsing

▲

Qube Actions

▲

Qube Notes

▼

Notes

Set Defaults

Clear Defaults

☐ Expert Mode

Cancel

Resubmit

Resubmit a HBatch job

Edit the following fields in the Qube Resubmit Dialog:

1. •**NAME:** YOURUSERNAME _HBatch
2. •**Instances:** <=40
3. •**Range:** 1-5
4. •**Command:**

Change from

```
cd /opt/software/hfs17.0.416; source houdini_setup_bash;
```

```
hbatch -R -c "render -V -f QB_FRAME_START QB_FRAME_END mantra1"  
/render/yioannidis/WOBBLY_SPHERE/H17_wobbly_sphere_begin.hipnc
```

To

```
cd /tmp; echo "render -V -f QB_FRAME_START QB_FRAME_END mantra1" > ${UID}-
```

```
QB_FRAME_NUMBER; cd /opt/software/hfs17.0.416; source houdini_setup_bash; hbatch
```

```
-R -c /tmp/${UID}-QB_FRAME_NUMBER
```

```
/render/yioannidis/WOBBLY_SPHERE/H17_wobbly_sphere_begin.hipnc; rm /tmp/${UID}-
```

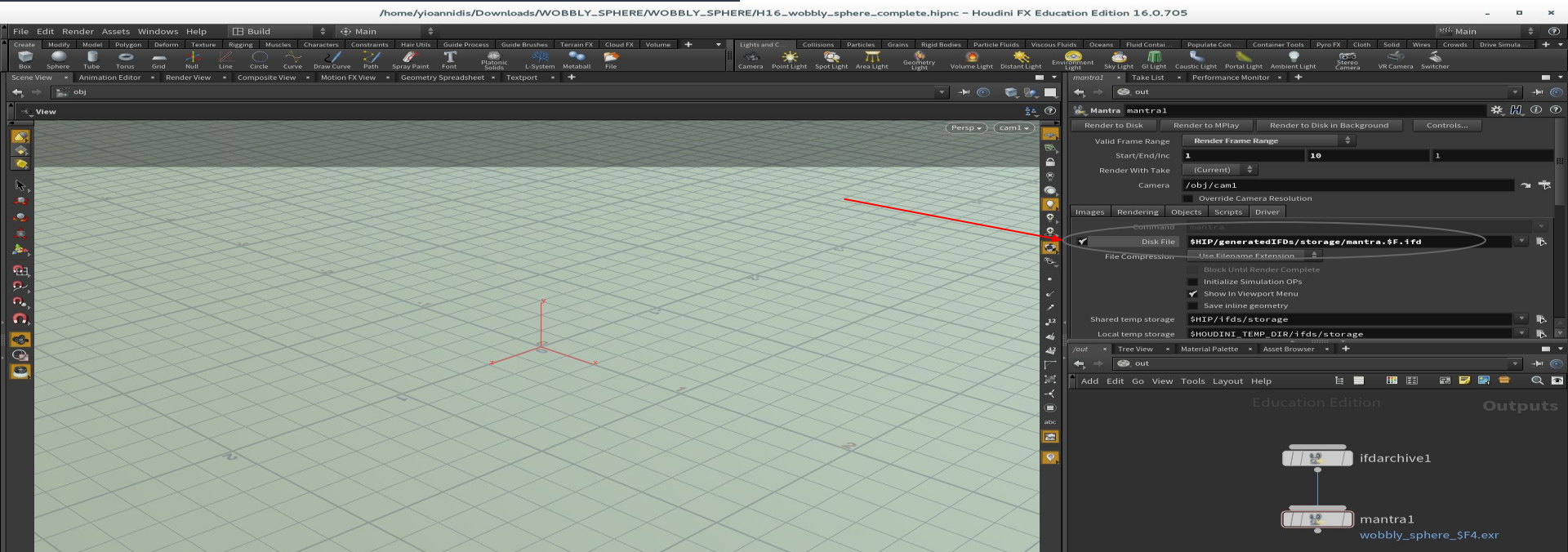
```
QB_FRAME_NUMBER
```

5. •**NAME:** YOURUSERNAME_Hbatch,
6. •**Cwd:** /home/YOURUSERNAME

Generate IFDs with Hrender Render them with MANTRA

MANTRA INPUT : IFD files
Renders previously exported IFD scene files

- The mantra renderer program can take IFD files (Houdini's scene description format) and use them to render images
- We need to generate the IFD files first



Why IFD files?

Why IFDs matter:

http://www.sidefx.com/docs/houdini/render/ifd_workflows.html

A 2 stage process

- Help maintaining an effective pipeline
- Full commercial license of Houdini comes with unlimited Mantra tokens (use as many machines as you have access to for rendering.)
- Keep your Houdini and Engine licenses free for working and running simulations.
- Mantra will simply pick up any changes to the on-disk geometry the next time it renders the IFDs.
- Only need to update the IFD if the materials or lights change. (regardless of changes in modelling, animation, or simulation)

Generating IFDs Locally (using Hrender) & Rendering them by feeding them with Mantra

Open terminal & type

```
hrender -e -f 1 5 -R -v -d mantra1  
H17_wobbly_sphere_IFD_GENERATION.hipnc
```

Now ifds have been locally generated under:

```
$HIP/generatedIFDS
```

So, we now we can render our 1st frame with mantra:

```
mantra -f generatedIFDS/frame1.ifd
```

Let's generate IFDs on the farm & render them using Mantra

open terminal and type: goQube &

Click **User** & and in the textbox type **yioannidis** + Hit Enter

Find the Job with ID **27838**

Right click on the Job & Edit the fields & Click Resubmit :

The screenshot displays the QubeMan/RenderView 6.8-4 interface. The top toolbar includes buttons for Refresh, Refresh Sel, Incomplete, Running, Failed, Killed, Complete, and User. The 'User' dropdown menu is set to 'yioannidis'. The main window shows a list of jobs with columns for Job ID, Name, and Status. Job 27838 is highlighted. The right sidebar shows the 'Job Properties' for job ID 27838, which is in a 'Complete' status. The job details include submission time, start time, elapsed time, completion time, CPU minutes, and average frame time. The 'Basic Job Properties' section shows the job name, prototype, user, priority, instances, and tasks. The 'Worker Selection Properties' section shows the cluster, restrictions, reservations, requirements, hostorder, hosts, and groups.

QubeMan/RenderView 6.8-4 [Supervisor v6.5-2: tete (20 licenses)]

File View Submit Administration Help

Refresh Refresh Sel Incomplete Running Failed Killed Complete User yioannidis Search Filter

requests in refresh queue: 0

Job counts: 22 Done 22 Retrieved: 22 Total in Qube: 739

Job ID	Name	Status
27839	1819-MantraCMDRange_v17.0.416	100% (5/5)
27838	1819-Hrender_GenerateIFDs16GenerateIFDs_v17.0.406	100% (5/5)
27836	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v17.0.406	100% (5/5)
27786	1819-Hrender-WOBBLY_SPHERE_v17.0.416	100% (5/5)
26934	1819-MantraCMDRange_v16.5.536	100% (5/5)
26932	1819-Hrender_GenerateIFDs16GenerateIFDs_v16.5.536	100% (5/5)
26930	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v16.5.536	100% (5/5)
26929	1819-Hrender-WOBBLY_SPHERE_v16.5.536	100% (5/5)
21243	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Render IFDs>)	100% (10/10)
21241	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Gen IFDs>)	100% (10/10)
21183	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE)	100% (10/10)
21092	MantraCMDRange16_0.705	100% (5/5)
21080	Hrender_GenerateIFDs16GenerateIFDs16_0.705	100% (5/5)
21078	Hbatch_CMDRANGE_WOBBLY_SPHERE16_0.705	100% (5/5)
21076	Hrender-WOBBLY_SPHERE_v16.0.705	100% (25/25)
20735	testSim_Hbatch_CMDRANGE16_0.557-CUSTOM-ROP	100% (25/25)
20731	yantest_ballBounce_Pro(renderman)	0% (0/24)
18862	yanRendermanRITestCmdRange	0% (0/40)
15585	yanRendermanRITestCmdRange	100% (40/40)
13173	testMantralayout	100% (25/25)
11977	VRAY_Yan_LogSmith	100% (100/100)
11969	VRAY_Yan	100% (100/100)

Job Properties Job Logs Output Time Graphs Job Internals

Job Id: 27839
Status: Complete

Job Times

Submission time : 2019-01-14 09:52:43
Start time : 2019-01-14 09:52:44
Elapsed time : 0:01:13
Completion time : 2019-01-14 09:53:57
CPU minutes : 0:05:54
Average frame time : unknown

Basic Job Properties

name : 1819-MantraCMDRange_v17.0.416
prototype : cmdrange
user : yioannidis
priority : 9999
instances : 5
tasks : 5 (5 complete)

Worker Selection Properties

cluster : /
restrictions :
reservations : host.processors=1
requirements :
hostorder : *host.processors.avail
hosts :
groups :

Qube Job Basics

Name → 1819-Hrender_GenerateIFDs16GenerateIFDs_v16.5.536

Priority 9999

Instances → 5

Max Instances -1

Qube Frame Range

Range → 1-5

Preview Frames Submission

Preview Priority -1

Required Parameters

hrender hrender

scene → HERE/H16_wobbly_sphere_IFD_GENERATION.I

Driver/Cop -d

Driver/Cop Value /out/mantra1

Optional Parameters

R ☒

Qube SimpleCmd and Shell Parameters

```
cd /opt/software/hfs16.5.536; source houdini_setup_bash;%  
[ -n "${HRENDER}" ] && { if [ -n "${HRENDER}" ]; then
```

Qube Advanced Job Control

Flags auto_mount Browse

Email (job complete) ☐ yioannidisEmail (failed frames) ☐ yioannidis

FlightCheck scripts

Qube Job Delayed Start

Qube Job Environment

Cwd → /home/yioannidis

	Environment Variables	
	Key	Value
	HOUDINI_USE_I	1
	SESLMHOST	burton.bournemouth.ac.uk

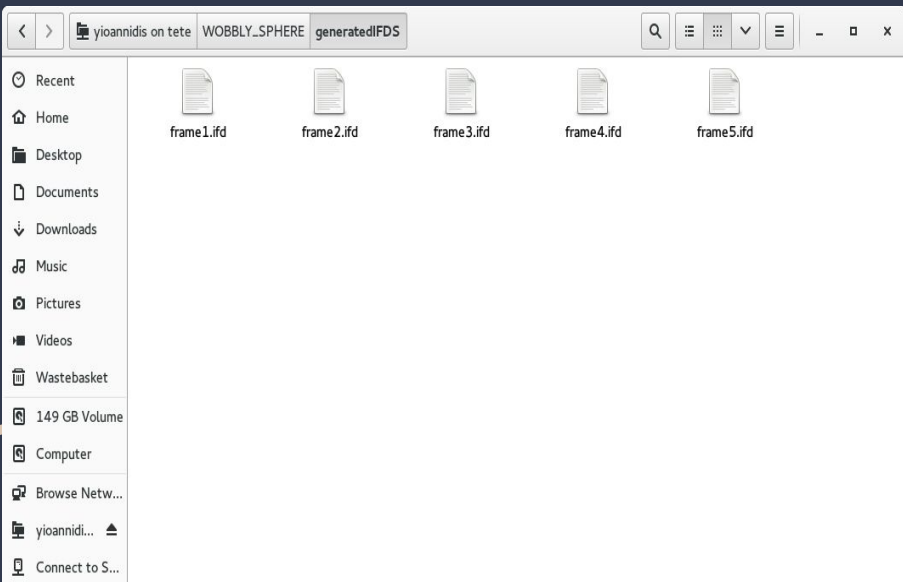
Qube Job Validation & RegularExpression-based Output Parsing

Qube Actions

Qube Notes

Notes

Resubmit a HRender job first (as before), to generate IFDs



Edit the following fields in the Qube Resubmit Dialog:

1. •**NAME:** YOURUSERNAME_HRender_IFD_Generation
2. •**Instances:** <=40
3. •**Range:** 1-5
4. •**scenefile:**

Change from

/render/yioannidis/WOBBLY_SPHERE/H17_wobbly_sphere_IFD_GENERATION.hipnc

To

/render/yourusername/WOBBLY_SPHERE/H17_wobbly_sphere_IFD_GENERATION.hipnc

Notice how /home/..... becomes /render/.....

5. •**Driver/Cop Value:** /out/mantra1
6. •**Cwd:** /home/ YOURUSERNAME
7. •**Click** Resubmit button

Render the IFDs generated using Mantra

open terminal and type: goQube &

Click **User** & and in the textbox type **yioannidis**

Find the Job with ID **27839**

Right click on the Job & Click Resubmit :

The screenshot shows the Qube! WranglerView 6.8-4 interface. The top menu bar includes File, View, Submit, Administration, and Help. Below the menu is a toolbar with icons for Refresh, Refresh Sel, Incomplete, Running, Failed, Killad, Complete, and User. The User icon is circled, and a dropdown menu is open showing the username 'yioannidis'. To the right of the toolbar is a search bar and a Filter button. Below the toolbar, the status bar shows 'Requests in refresh queue: 0' and 'Farm Usage: running instances: 0 workers: 6/16 slots: 27/340'.

The main window is divided into two panes. The left pane shows a list of jobs with columns: Id, % Done, and Name. The right pane shows the details for the selected job, Job Id: 27839, Status: Complete.

Id	% Done	Name
27839	100% (5/5)	1819-MantraCMDRange_v17.0.416
27838	100% (5/5)	1819-Hrender_GenerateIFDs16GenerateIFDs_v17.0.406
27836	100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v17.0.406
27786	100% (5/5)	1819-Hrender-WOBBLY_SPHERE_v17.0.416
26934	100% (5/5)	1819-MantraCMDRange_v16.5.536
26932	100% (5/5)	1819-Hrender_GenerateIFDs16GenerateIFDs_v16.5.536
26930	100% (5/5)	1819-Hbatch_CMDRANGE_WOBBLY_SPHERE_v16.5.536
26929	100% (5/5)	1819-Hrender-WOBBLY_SPHERE_v16.5.536
21243	100% (10/10)	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Render IFDs>)
21241	100% (10/10)	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE <Gen IFDs>)
21183	100% (10/10)	yioannidis_H16_wobbly_sphere_complete_Pro(WOBBLY_SPHERE)
21092	100% (5/5)	MantraCMDRange16_0_705
21080	100% (5/5)	HRENDER_GenerateIFDs16GenerateIFDs16_0_705
21078	100% (5/5)	HBATCH_CMDRANGE_WOBBLY_SPHERE_16_0_705
21076	100% (25/25)	Hrender-WOBBLY_SPHERE_v16.0.705
20735	100% (25/25)	testSim_HBATCH_CMDRANGE_16_0_557-CUSTOM-ROP
20731	0% (0/24)	yanTest_ballBounce_Pro(renderman)
18862	0% (0/40)	yanRendermanRISestCmdRange
15585	100% (40/40)	yanRendermanRISestCmdRange
13173	100% (25/25)	testMantralout
11977	100% (100/100)	VRAY_Yan_LogSmith
11969	100% (100/100)	VRAY_Yan

Job Properties

Job Id: 27839
Status: Complete

Job Times

Submission time : 2019-01-14 09:52:43
Start time : 2019-01-14 09:52:44
Elapsed time : 0:01:13
Completion time : 2019-01-14 09:53:57
CPU-Minutes : 0:05:54
Average frame time : unknown

Basic Job Properties

name : 1819-MantraCMDRange_v17.0.416
prototype : cmdrange
user : yioannidis
priority : 9999
instances : 5
tasks : 5 (5 complete)

Worker Selection Properties

cluster : /
restrictions :
reservations : host.processors=1
requirements :
hostorder : +host.processors.avail
hosts :
groups :
omit hosts :
omit groups :

Resubmit cmdrange

Qube Job Basics

Name → 1819-MantraCMDRange_v16.5.536

Priority 9999

Instances → 5

Qube Frame Range

Range 1-5

Preview Frames Submission

Preview Priority -1

Parameters

Command
cd /opt/software/hfs16.5.536;source ./houdini_setup_bash;
mantra -f /render/yioannidis/WOBBLY_SPHERE/generatedIFDS/frameQB_FRAME_NUMBER.ifd

Frame Padding 1

Qube Worker Selection

Priority Cluster / Browse

Reservations host.processors=1 Browse

Qube Advanced Job Control

Flags auto_mount Browse

Email (job complete) ☐ yioannidis

Resubmit cmdrange

Qube Advanced Job Control

Flags auto_mount Browse

Email (job complete) ☐ yioannidis

Email (failed frames) ☐ yioannidis

FlightCheck scripts

Qube Job Delayed Start

Qube Job Environment

Cwd → /render/yioannidis/

	Environment Variables	
	Key	Value
	HOUDINI_USE_L	1
	SESI_LMHOST	burton.bournemouth.ac.uk

Qube Job Validation & RegularExpression-based Output Parsing

Qube Actions

Qube Notes

Notes

Render the IFDs using Mantra

Edit the following fields in the Qube Resubmit Dialog:

1. •**NAME:** YOURUSERNAME _HRender_IFD_Generation
2. •**Instances:** <=40
3. •**Range:** 1-5
4. •**Command:**

Change from

```
mantra -f  
/render/yioannidis/WOBBLY_SPHERE/generatedIFDS/frameQB_FRAME_NUMBER.ifd;
```

To

```
mantra -f  
/render/yourusername/WOBBLY_SPHERE/generatedIFDS/frameQB_FRAME_NUMBER.ifd;
```

5. •**Cwd:** /home/ **YOURUSERNAME**
6. •**Click** Resubmit button

Houdini Qube Documentation & Renderfarm Guide

Manual Docs:

```
cd /public/bin/ncca_renderfarm/Documentation/Standard/for_Linux/Houdini
```

```
nautilus .&
```

Tool Docs:

```
cd /public/bin/ncca_renderfarm/Documentation
```

```
nautilus .&
```