

# Maya Job Submission

Step by step instructions for submitting Maya jobs with Qube!

## Step 1 (First Time Only)

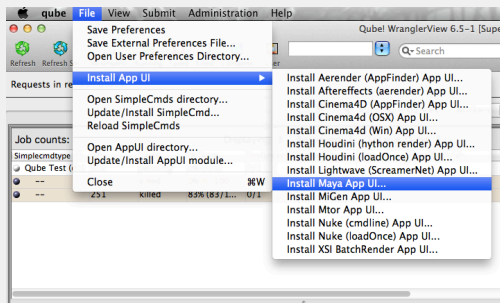
### Install the Qube! Submission UI into Maya

If you want the submission menu inside of Maya (recommended) then install the InApp plugins via the Qube! WranglerView as shown here. To do this, launch the WranglerView:

- **Windows:** Double-click the color desktop icon
- **OS X:** Find the color icon in Applications/pfx/qube and double-click on it
- **Linux:** Type 'qube' at the command line (without the quotes)

Then navigate to the File menu, choose "Install App UI" and choose "Install Maya App UI"

You will need to do this on every workstation that you intend to submit Maya jobs from. If you don't see the "Maya App UI" entry in the menu, the Maya JobType was not installed. This should have happened with you installed the Worker, but if not, see [this page](#) for details of installing it.



## Step 2

Once installed you should be able to locate the "Qube!" menu in Maya's menu bar.

With a scene loaded in Maya choose "Submit Maya Render Job...".

Note that you could also choose "Submit Batch Render..." depending on your requirements.

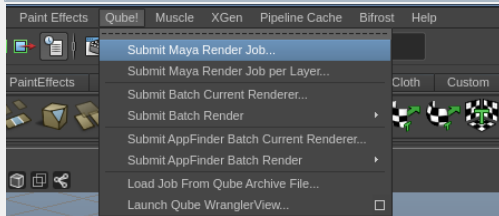


### Render vs Batch Render

What's the difference?

**Submit Render** will open a copy (instance) of Maya on the Worker that picks up the job, and that instance will render frames as assigned by the Supervisor. Since the scene file is only being opened one time, this can be faster to generate the full sequence.

**Submit Batch Render** will use the *command line* to open a new instance of the Maya file for each frame that it renders. Although this can be slower for large scenes, it can also be more flexible in large, complex environments.



### Step 3

This will present a pre-filled submission UI like the one shown here. Ensure sections marked in red have the correct details.



#### Useful Settings

While not strictly required, the following settings are useful for getting a better result. You will need to turn on "Expert Mode" (check box at the bottom of the submission UI) in order to get access to them.

- Optimize the use of cores. Set the "Slots = Threads" checkbox and then set the "Specific Thread Count" to a value like 8 (assuming you have 8 cores). (If you have Designer licenses, only set the thread count. **Do not** check "Slots = Threads")
- By default, Qube! will not retry failed frames. So set the "Retry frame/instance" value to 3 or 5, to get 3 or 5 retries before it gives up. Related to that, the default wait between retries is zero seconds, which is typically not useful. Set the "Retry Work Delay" to a value like 5 or 10 to allow machines time to recover from temporary problems such as network errors.

Submit maya

Qube Job Basics

Name: maya render qube\_sequence.mb

Priority: 9999

Instances: 1

Qube Frame Range

Range: 1-100x1

Preview Frames Submission

Render App Uses a Specific Number of Threads

Slots = Threads: ☒ (Reserve a worker slot for each thread)

Specific Thread Count: 1

Scene and Directories

Scenefile: /tmp/qube\_sequence.mb

Project dir: /tmp/maya/

Cameras/Layers/Lights

Renderer

Image File Output

Image Size

MEL Scripts

Qube Worker Selection

Qube Advanced Job Control

Email (job complete): ☒ andrew

Email (failed frames): ☒ andrew

Click to back encode

Set Defaults Clear Defaults ☒ Expert Mode Cancel Submit

### Step 4

Click 'Submit'

For further details on the submission UI see below.

Set Defaults Clear Defaults ☐ Expert Mode Cancel Submit

## Job Submission Details



Not all sections need to be filled in in order to render only the fields marked in red are required

Qube Job Basics

Name	<input type="text"/>
Priority	9999
Instances	1
Max Instances	-1

✓ [Click here for details...](#)

### Name

This is the name of the job of the job so it can be easily identified in the Qube! UI.

### Priority

Every job in Qube is assigned a numeric priority. Priority 1 is higher than priority 100. This is similar to 1st place, 2nd place, 3rd place, etc. The default priority assigned to a job is 9999.

### Instances

This is the number of copies of the application that will run at the same time across the network. The combination of "Instances=1" and "Max Instances=-1" means that this job will take as much of the farm as it can, and all jobs will share evenly across the farm.

Examples:

On a 12 slot(core) machine running Maya if you set  
"Instances" to 4

"Reservations" to "host.processors=3"

Qube! will open 4 sessions of Maya on the Worker(s) simultaneously, which may consume all slots/cores on a given Worker.

if you set

"Instances" to 1

"Reservations" to "host.processors=1+"

Qube will open 1 session of Maya on a Worker, consuming all slots/cores  
("host.processors=1+" is used for all slots/cores).

### Max Instances

If resources are available, Qube! will spawn more than 'Instances' copies of the application, but no more than 'Max Instances'. The default of -1 means there is no maximum. If this is set to 0, then it won't spawn more than 'Instances' copies.

More on [Instances](#) & [Reservations](#) & [SmartShare Studio Defaults](#)

Qube Frame Range

Range	<input type="text"/>
rangeOrdering	ascending

✓ [Click here for details...](#)

## Range

Frame range for the job (e.g 1-100, or 1-100x3, or 1,3,7,10). Most jobs require a frame range to execute on the Workers. You can set this range in a few different ways :

- "1-100" will just render the range between 1 and 100
- "1-100x3" will render every 3rd frame in the range 1 to 100; 1, 4, 7, ..., 94, 97, 100
- "1,3,7,10" will only render the selected frames 1,3,7,10

### rangeOrdering

Order to render the items.

(Ascending=1,2,3,4,5...,Descending=10,9,8...,Binary=first,middle,last...) You can set the order in which your frames are rendered. The drop down options are:

- "Ascending" - this will render the frames counting upwards from your start frame
- "Decending" - this will render the frames counting backwards from your end frame
- "Binary" - This will render the first, last, and middle frames of the range, then the middle frame of the first half and the middle frame of the second half, and so on. This is useful for sampling the frames in the sequence to make sure it is rendering correctly.

Preview Frames Submission ▼

Use Preview Frames ☐

Frame Numbers

Preview Priority

Preview Subjobs

▼ [Click here for details...](#)

## Use Preview Frames

Enabling preview frames will create 2 jobs:

- A primary dependent job with a higher priority that will render the selected frames first
- A secondary job with lower priority that will render the remaining frames. This will return the selected frames faster so that you can check the accuracy of your renders.

## Frame Numbers

Choose the frames that you wish to render first. If left blank the default is to render the first frame, the last frame and the middle frame in that order. You can select specific frames by adding comma separated frame numbers e.g 1,2,10,15,75, or a range with, e.g., 1-100x5 (1 to 100, every 5th frame)

## Preview Priority

Choose the priority for the preview job. This can be set by the site admin.

## Preview Subjobs

Choose the number of instances / subjobs for the preview frames. By default, this is equal to the number of preview frames - that is, it will try to do all the preview frames at the same time.

Note that when you submit a job with preview frames enabled, it will actually submit 2 jobs—one with the preview frames list at a higher priority, and another with the rest of the agenda, at the normal priority (as specified in the job's **Priority** field). You will get, consequently, 2 job IDs for the submission.

Render App Auto-threads & Uses the Entire Worker ▼

Usage Tip: You can either select "Render on all cores" here in this section, or set a specific number of threads for the process in the next section. Using this section causes the "Specific Number of Threads" section below to be ignored.

Render on all cores ☐ (Reserves the entire worker)

Min Free Slots

▼ [Click here for details...](#)

### New in 6.4-4

For applications/renderers that do not support using all cores while rendering (or changing that behavior, eg AfterEffects or 3dsMax), this section is not visible.

## Render on all Cores

Checking this box means that once this job is assigned to a machine, no more jobs or instances will be assigned to the same machine until this job is complete. You might choose this if you know your render job is very memory intensive and shouldn't run alongside other jobs.

## Min Free Slots

This is the number of slots that must be available on a worker in order for the worker to accept the job. For example, if you choose '1', a worker with 7 out of 8 cores already in use will still accept this job. However, if you were to choose '2', the same machine under the same circumstances would not accept the job.



### Preemption

This option does not preempt any previously running instances on the worker, it only prevents additional instances from being assigned to this worker.

Render App Uses a Specific Number of Threads ▼

Usage Tip: You can either set a specific number of threads for the process here in this section, or use the section above to automatically use all cores on a worker. Using this section caused the "Auto-threading" section above to be ignored.

Slots = Threads ☐ (Reserve a worker slot for each thread)

Specific Thread Count

▼ [Click here for details...](#)

### New in 6.4-4

For applications/renderers that do not support setting a specific number of threads, this section is not visible.

### Slots = Threads

If this box is checked, it tells Qube and the application (eg, Maya) to use the specific number of threads listed in the "Specific Thread Count" field. If this is not checked, then the "Specific Thread Count" value is passed only to the application, but Qube is unaware of the number of cores/slots it should reserve. In most cases, you will want to check this box, *unless* you have Designer licenses, in which case you would only set the numeric value.

### Specific Thread Count

This tells the renderer to use a specific number of threads for rendering. The default is one thread, which for any modern renderer will underperform, and when combined with the slots=threads, will swamp most workers by running as many instances as there are slots (eg, a 24 core machine would run 24 instances of the application/renderer). A better value is 8 (assuming you have 8 cores, as most modern machines do) which means that each instance of the job will use 8 threads to render, and, when combined with slots=threads, will reserve 8 slots while doing so.



### Designer License

Designer licenses are restricted to 1 slot, so if you are using a Qube Designer license, set the Specific Thread Count, but *do not* check the "Slots=Threads" option.

## Parameters Specific to Maya

Scene and Directories ▼

Scenefile

Project dir

▼ [Click here for details...](#)

### Scenefile

Path to Maya scene (required). Browse for or enter manually the location of the scene file to be rendered. This is a required field for submission.

Important: Best practice is to ensure the scene file and all of its dependent files such as textures are on network storage accessible by the workers.

### Project dir

Path to Maya project directory. If you are submitting from Maya, this will be filled in for you. Otherwise, browse for or enter manually the location of the project directory.

Important: Best practice is to ensure the project directory and all of its dependent files such as textures are on network storage accessible by the workers.

Cameras/Layers/Lights ▼

Cameras	<input type="text"/>	Choices
Layers	<input type="text"/>	Choices
EnableDefaultLight	<input type="text"/>	

▼ [Click here for details...](#)

### Cameras

List of cameras to use for render (space-separated). Choose from pre-populated list and or enter manually cameras to override scene settings.

### Layers

List of layers to render (space-separated). Choose from pre populated and or enter manually layers to override scene settings.

### EnableDefaultLight

Choose from drop down to override scene settings.

Renderer ▼

Renderer	<input type="text"/>	⬆ ⬇ ⬆
Render Threads	<input type="text" value="-1"/>	⬆ ⬇ ⬆
Ignore Errors	<input type="checkbox"/>	
Distributed Rendering	<input type="text" value="None"/>	⬆ ⬇ ⬆
Maya Executable	<input type="text"/>	Browse

▼ [Click here for details...](#)

### Renderer

Choose from drop down to override scene settings

### Render Threads

Number of threads each subjob should use. This is set for you if you set the Specific Thread Count above. Set to -1 to use the value of host.processors instead, 0 to use all cores on the Worker (if the renderer supports that).

### Ignore Errors

Tick the box to ignore errors. This ignores error messages that are generated during the render that would otherwise cause frames to fail.

### Distributed Rendering

Enable Distributed Rendering (mental ray satellite OR V-Ray DR). Choose from the drop down to override scene settings. See also [Distributed Renders with mental ray or V-Ray](#)

### Maya Executable

Browse for or specify the path to the maya executable file (mayabatch.exe for Windows), if you want to override the auto-detected default. In normal circumstances, this field should be left blank.

Important : Be aware that if you are submitting from one OS to another, the path to the executable will be different. Qube! will handle that if you leave this field blank.

Image File Output ▼

Render dir	<input type="text"/>	Browse
File Name Prefix	<input type="text"/>	
Frame/Anim Ext	<input type="text"/>	
Frame Padding	<input type="text"/>	
Renummer StartFrame	<input type="text"/>	
Renummer ByFrame	<input type="text"/>	
File extension	<input type="text"/>	

▼ [Click here for details...](#)

### Render dir

Path to Maya output render directory. Browse to or manually enter the location of the output image file you wish to generate. You should never have to set this manually.

Important: Best practice is to ensure outputs are written to network storage accessible by the workers.

### File Name Prefix

Image file name prefix overrides the Maya scene settings, eg in name.#.ext, **name** would be changed.

### Frame/Anim Ext

Choose from drop down to override the Maya scene settings, and position the frame numbers in the output file name.

### Frame Padding

Number of digits for frame number, e.g. using 4 would produce name.0001.ext.

### Renumber StartFrame

The starting output image filename extension value. Enter the numeric value to override the Maya scene settings.

### Renumber ByFrame

The output image filename extension step ('by' or increment) value. Enter the numeric value to override the Maya scene settings.

### File Extension

The string added at the end of the file name. Enter the file extension value to override scene settings.

Image Size	
Image Width (pixels)	<input type="text"/>
Image Height (pixels)	<input type="text"/>
Maintain Aspect ratio	<input type="button" value="↑"/>
Maintain ratio	<input type="button" value="↑"/>
Pixels/Inch	<input type="text"/>
Device Aspect Ratio	<input type="text"/>
Pixel Aspect Ratio	<input type="text"/>

▼ [Click here for details...](#)

### Image Width (pixels)

Image width. Enter the numeric value to override scene settings

### Image Height (pixels)

Image height. Enter the numeric value to override scene settings

### Maintain Aspect Ratio

Maintain Aspect ratio. Select required option from drop down

### Maintain Ratio

Maintain ratio. Select required option from drop down

### Pixels/Inch

Resolution (Pixels/Inch). Enter the numeric value to override scene settings

### Device Aspect Ratio

Device Aspect Ratio. Enter the numeric value to override scene settings

### Pixel Aspect Ratio

Pixel Aspect Ratio. Enter the numeric value to override scene settings

MEL Scripts	
preRenderMel	<input type="text"/>
postRenderMel	<input type="text"/>
preRenderLayerMel	<input type="text"/>
postRenderLayerMel	<input type="text"/>
preRenderFrameMel	<input type="text"/>
postRenderFrameMel	<input type="text"/>

▼ [Click here for details...](#)

### preRenderMel

The mel string to be executed before a scene is rendered. Enter the script string.

### postRenderMel

The mel string to be executed after a scene is rendered. Enter the script string.

### preRenderLayerMel

The mel string to be executed before a render layer is rendered. Enter the script string.

### postRenderLayerMel

The mel string to be executed after a render layer is rendered. Enter the script string.



### preRenderFrameMel

The mel string to be executed before a frame is rendered. Enter the script string.

### postRenderFrameMel

The mel string to be executed after a frame is rendered. Enter the script string.

Qube Job Tags

Job Show	<input type="text"/>	<input type="button" value="↑↓"/>
Job Shot	<input type="text"/>	<input type="button" value="↑↓"/>
Job Seq	<input type="text"/>	<input type="button" value="↑↓"/>
Job Client	<input type="text"/>	<input type="button" value="↑↓"/>
Job Dept	<input type="text"/>	<input type="button" value="↑↓"/>
Job Custom1	<input type="text"/>	<input type="button" value="↑↓"/>
Job Custom2	<input type="text"/>	<input type="button" value="↑↓"/>
Job Custom3	<input type="text"/>	<input type="button" value="↑↓"/>
Job Custom4	<input type="text"/>	<input type="button" value="↑↓"/>
Job Custom5	<input type="text"/>	<input type="button" value="↑↓"/>

Click here for details...

### Qube Job Tags

New in Qube 6.5

**Note:** The Job Tags section of the submission UI will not be visible unless they are turned on in the [Preferences](#) in the Wrangler View UI. Job Tags are explained in detail on the [Job Tags](#) page.

Qube Worker Selection

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

Click here for details...

### Hosts

Explicit list of Worker hostnames that will be allowed to run the job (comma-separated).

### Groups

Explicit list of Worker groups that will be allowed to run the job (comma-separated). Groups identify machines through some attribute they have, eg, a GPU, an amount of memory, a license to run a particular application, etc. Jobs cannot migrate from one group to another. See [worker\\_groups](#).

### Omit Hosts

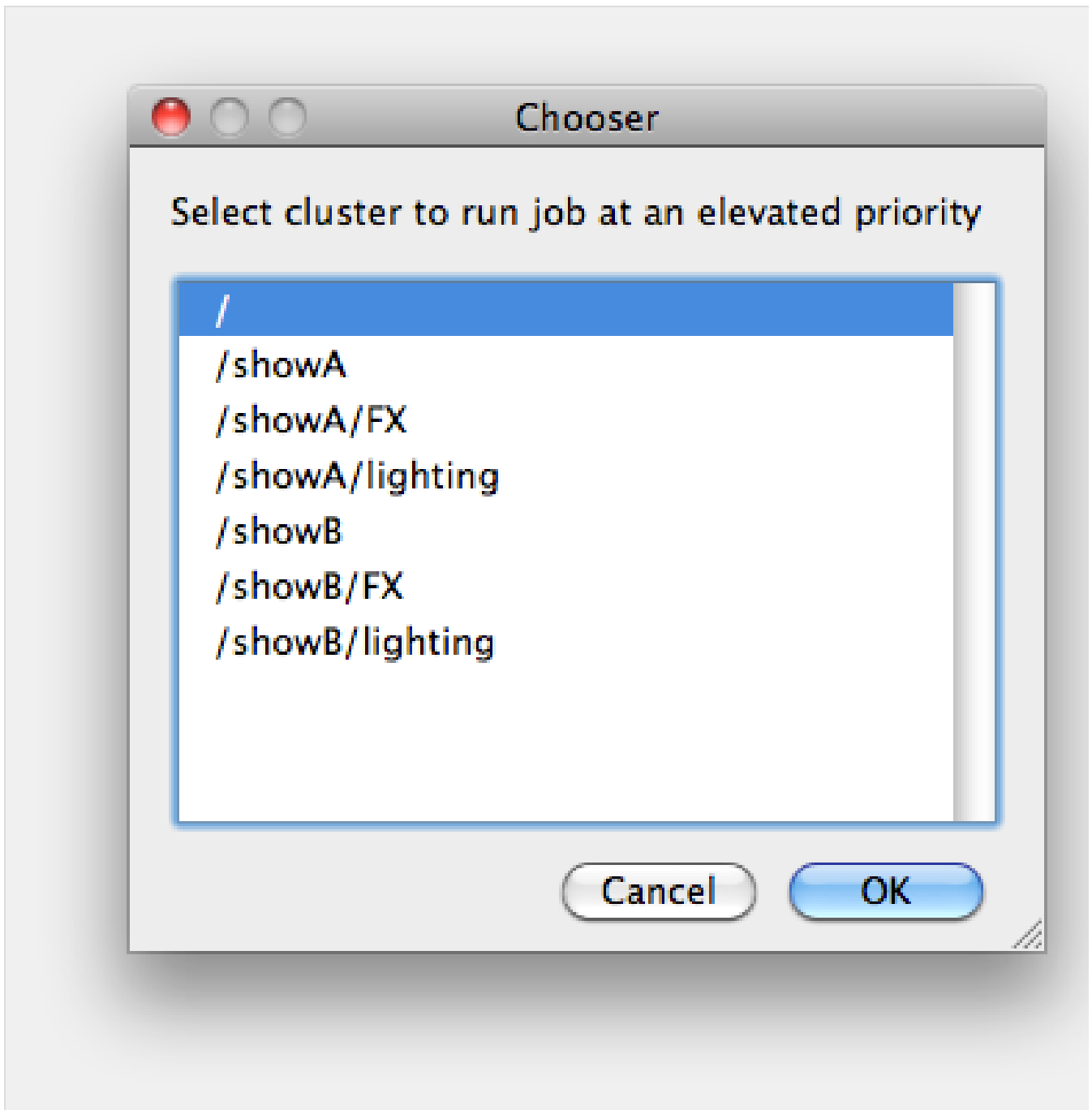
Explicit list of Worker hostnames that are **not** allowed run the job (comma-separated).

### Omit Groups

Explicit list of Worker groups that are **not** allowed to run the job (comma-separated).

## Priority Cluster

Clusters are non-overlapping sets of machines. Your job will run at the given priority in the given cluster. If that cluster is full, the job can run in a different cluster, but at lower priority. [Clustering](#)



Example:

- A job submitted to /showB/lighting will run with its given priority in /showB/lighting cluster.
- If /showB/lighting is full, that job can run in /showB/FX, but at a lower priority.
- If both /showB/lighting and /showB/FX are full, the job can run in /showA/\* at an even lower priority.

## Host Order

Order to select Workers for running the job (comma-separated) [+ means ascending, - means descending].

Host Order is a way of telling the job how to select/order workers

- "+host.processors.avail" means prefer workers which have more slots available
- "+host.memory.avail" means prefer workers which have more memory available
- "+host.memory.total" means prefer workers which have more total memory
- "+host.processor\_speed" means prefer workers with higher cpu speeds
- "+host.cpus" means prefer workers with higher total cpu slots

## Requirements

Worker properties needed to be met for job to run on that Worker (comma-separated, expression-based). Click 'Browse' to choose from a list of Host Order Options.

Requirements is a way to tell the workers that this job needs specific properties to be present in order to run. The drop-down menu allows a choice of OS:

- "winnt" will fill the field with "host.os=winnt" which means only run on Windows based workers
- "linux" will fill the field with "host.os=linux" which means only run on Linux based workers
- "osx" will fill the field with "host.os=osx" which means only run on OSX based workers

You can also add any other Worker properties via plain text. Some examples:

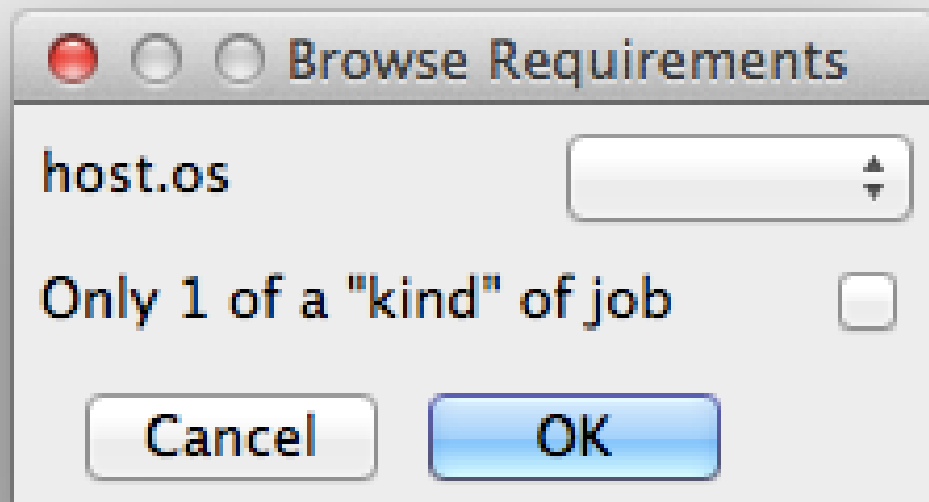
- "host.processors.avail.=4" means only run this job on workers that have 4 or more slots available
- "host.processors.used=0" means only run this job on workers with 0 slots in use
- "host.memory.avail=400" means only run this job on workers that have 400 memory available

With integer values, you can use any numerical relationships, e.g. =, <, >, <=, >=. This won't work for string values or floating point values. Multiple requirements can also be combined with AND and OR (the symbols && and || will also work).

The 'Only 1 of a "kind" of job' checkbox will restrict a Worker to running only one instance with a matching "kind" field (see below). The prime example is After Effects, which will only allow a single instance of AE on a machine. Using this checkbox and the "Kind" field, you can restrict a Worker to only one running copy of After Effects, while still leaving the Worker's other slots available for other "kinds" of jobs.

## Reservations

Worker resources to reserve when running job (comma-separated, expression-based).



**Browse Reservations**

host.memory	0	↑ ↓	Mb
host.processors	1	↑ ↓	<input type="checkbox"/> All
global.vray	0	↑ ↓	
global_host.nuke	0	↑ ↓	
license.prman	0	↑ ↓	

OK Clear Cancel

Reservations is a way to tell the workers that this job will reserve the specific resources for this job.

Menu items:

- "host.processors" this will fill the field with "host.processors=X" which means reserve X slots on the worker while running this job
- "host.memory" this will fill the field with "host.memory=X" which means only reserve X memory on the worker while running this job

Other options:

- "host.license.nuke=1" when a [Global Resources](#) entry has been made you can reserve any arbitrary named item. **New in 6.6:** Once you global resource, it will show up in this menu (eg global.vray above).
- See also [Job Reservations](#)

## Restrictions

Restrict job to run only on specified clusters ("||"-separated) [+]

means all below, \* means at that level]. Click 'Browse' to choose from a list of Restrictions Options.

Restrictions is a way to tell the workers that this job can only run on specific clusters. You can choose more than one cluster in the list.

Examples:

- Choosing /showA would restrict the job to machines that are only in the /showA cluster, and no other cluster, not even those below /showA.
- Choosing /showA/\* would restrict the job to the cluster(s) *below* /showA, but *not including* /showA
- Choosing /showA/+ would restrict the job to /showA and all the clusters below it.

## See Also

- [Controlling Host Selection](#)
- [How to use qbrwk.conf](#)
- [worker\\_groups](#)
- [worker\\_cluster](#)
- [How to use clustering for workers](#)

Qube Advanced Job Control

Flags  [Browse](#)

Dependency  [Add](#)

Email (job complete) ☐

Email (failed frames) ☐

Blocked ☐

Stderr->Stdout ☐

Job Label

Job Kind

Process Group

Retry Frame/Instance

Retry Work Delay

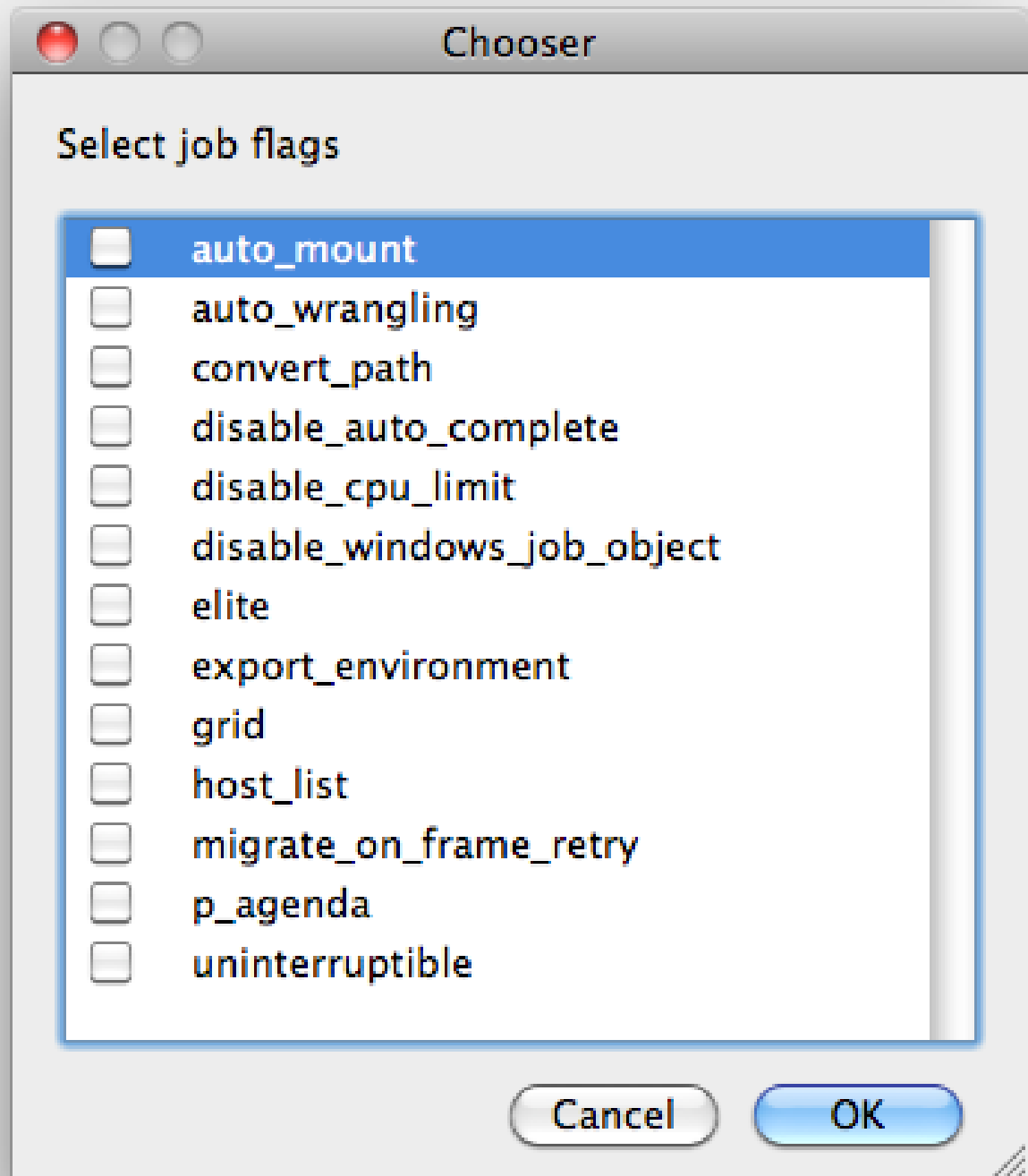
Subjob Timeout

Frame Timeout

[Click here for details...](#)

## Flags

List of submission flag strings (comma separated). Click 'Browse' to choose required job flags.

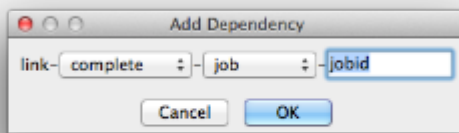


See [this page](#) for a full explanation of flag meanings

### Dependency

Wait for specified jobs to complete before starting this job

(comma-separated). Click 'Add' to create dependent jobs.



You can link jobs to each other in several ways:

- "complete" means only start this job after designated job completes
- "failed" means only start this job if the designated job fails
- "killed" means only start this job if the designated job has been killed
- "done" means start this job if the designated job is killed/failed/complete

The second menu chooses between "job" (the entire set of frames) and "work" (typically a frame). So to link frame 1 of one job to frame 1 of a second, job, you would choose "work" in this menu. If you want to wait for all the frames of one job to complete before starting a second, then choose "job". The other option, "subjob", refers to the instance of a job. This is much less common, but means that, for example, the instance of Maya that was running frames has completed.

For a complete description on how to define complex dependencies between jobs or frames, please refer to the [Callbacks](#) section of the Developers Guide.

### Email (job complete)

Send email on job completion (success or failure). Sends mail to the designated user.

### Email (failed frames)

Sends mail to the designated user if frames fail.

### Blocked

Set initial state of job to "blocked".

### Stderr->Stdout

Redirect and consolidate the job stderr stream to the stdout stream. Enable this if you would like to combine your logs into one stream.

### Job Label

Optional label to identify the job. Must be unique within a Job Process Group. This is most useful for submitting sets of dependent jobs, where you don't know in advance the job IDs to depend on, but you do know the labels.

### Job Kind

Arbitrary typing information that can be used to identify the job. It is commonly used to make sure only one of this "kind" of job runs on a worker at the same time by setting the job's requirements to



include "not (job.kind in host.duty.kind)". See [How to restrict a host to only one instance of a given kind of job, but still allow other jobs](#)

## Process Group

Job Process Group for logically organizing dependent jobs. Defaults to the jobid. Combination of "label" and "Process Group" must be unique for a job. See [Process group labels](#)

## Retry Frame/Instance

Number of times to retry a failed frame/job instance. The default value of -1 means don't retry.

## Retry Work Delay

Number of seconds between retries.

## Subjob Timeout

Kill the subjob process if running for the specified time (in seconds). Value of -1 means disabled. Use this if the acceptable instance/subjob spawn time is known.

## Frame Timeout

Kill the agenda/frame if running for the specified time (in seconds). Value of -1 means disabled. Use this if you know how long frames should take, so that you can automatically kill those running long.

FlightCheck scripts	
Job Pre-flight	<input type="text"/> <input type="button" value="Browse"/>
Job Post-flight	<input type="text"/> <input type="button" value="Browse"/>
Work Pre-flight	<input type="text"/> <input type="button" value="Browse"/>
Work Post-flight	<input type="text"/> <input type="button" value="Browse"/>

▼ [Click here for details...](#)

### Job Pre-flight

Some executable (e.g. a script) that will run *on the Worker* before the job runs. If the pre-flight fails, the job will not run on this Worker, but will be moved to another. Useful for setting up environments, copying required images, checking the existence of fonts on the Worker, etc.

### Job Post-flight

An executable that will run *on the Worker* after the job has finished on that Worker. If this fails, the instance is failed.

### Work Pre-flight

Some executable (e.g. a script) that will run *on the Worker* before the frame/work runs. If this fails, the frame/work will be marked as failed and rendering will be skipped. If there are retries configured, the frame/work will be treated according to those settings.

### Work Post-flight

An executable that will run *on the Worker* after the frame/work runs. If this fails, the frame/work will be marked as failed, even if the render, itself, was succesful. If there are retries configured, the frame/work will be treated according to those settings.

Qube Job Delayed Start	
hh:mm M/D/Y	<input type="text"/> <input type="button" value="Time and Date"/>

▼ [Click here for details...](#)

hh:mm M/D/Y

The job is blocked on the Supervisor until this day and time. Click on "Time and Date" to get a calendar and time UI.

The screenshot shows a configuration panel titled "Qube Job Environment". It contains three main sections: "Cwd" with a text input field, "Environment Variables" with a table, and "Impersonate User" with a text input field. The table has two columns, "Key" and "Value", and several empty rows. A scrollbar is visible on the right side of the table.

Key	Value

✓ [Click here for details...](#)

## Cwd

Current Working Directory to use when running the job.

## Environment Variables

Environment variables override when running a job. You can specify key/value pairs of environment variables

This is useful when you might need different settings for your render applications based on different departments or projects.

## Impersonate User

You can specify which user you would like to submit the job as. The default is the current user. The format is simply <username>. This is useful for troubleshooting a job that may fail if sent from a specific user.

Example:

Setting "josh" would attempt to submit the job as the user "josh" regardless of your current user ID.

Note: In order to do this, the submitting user must have "impersonate user" permissions.

The screenshot shows a configuration panel titled "Qube Actions". It contains a single section "generateMovie" with a checkbox.

✓ [Click here for details...](#)

## GenerateMovie

Select this option to create a secondary job that will wait for the render to complete then combine the output files into a movie.

Note: For this to work correctly the "Qube (ImagesToMovie) Job..." has to be setup to use your studios transcoding application.

The screenshot shows a configuration panel titled "Qube Notes". It contains two sections: "Account" with a text input field and a dropdown arrow, and "Notes" with a text input field.

✓ [Click here for details...](#)

## Account

Arbitrary accounting or project data (user-specified). This can be

used for creating tags for your job.

You can add entries by typing in the drop-down window or select already created accounts from the drop-down.

See also [Qube! Job Tags](#)

**Notes**

Freeform text for making notes on this job. Add text about the job for future reference. Viewable in the Qube UI.