

# SimpleCMD\_QubeWorkerSelection

| 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            | <input type="text" value="+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

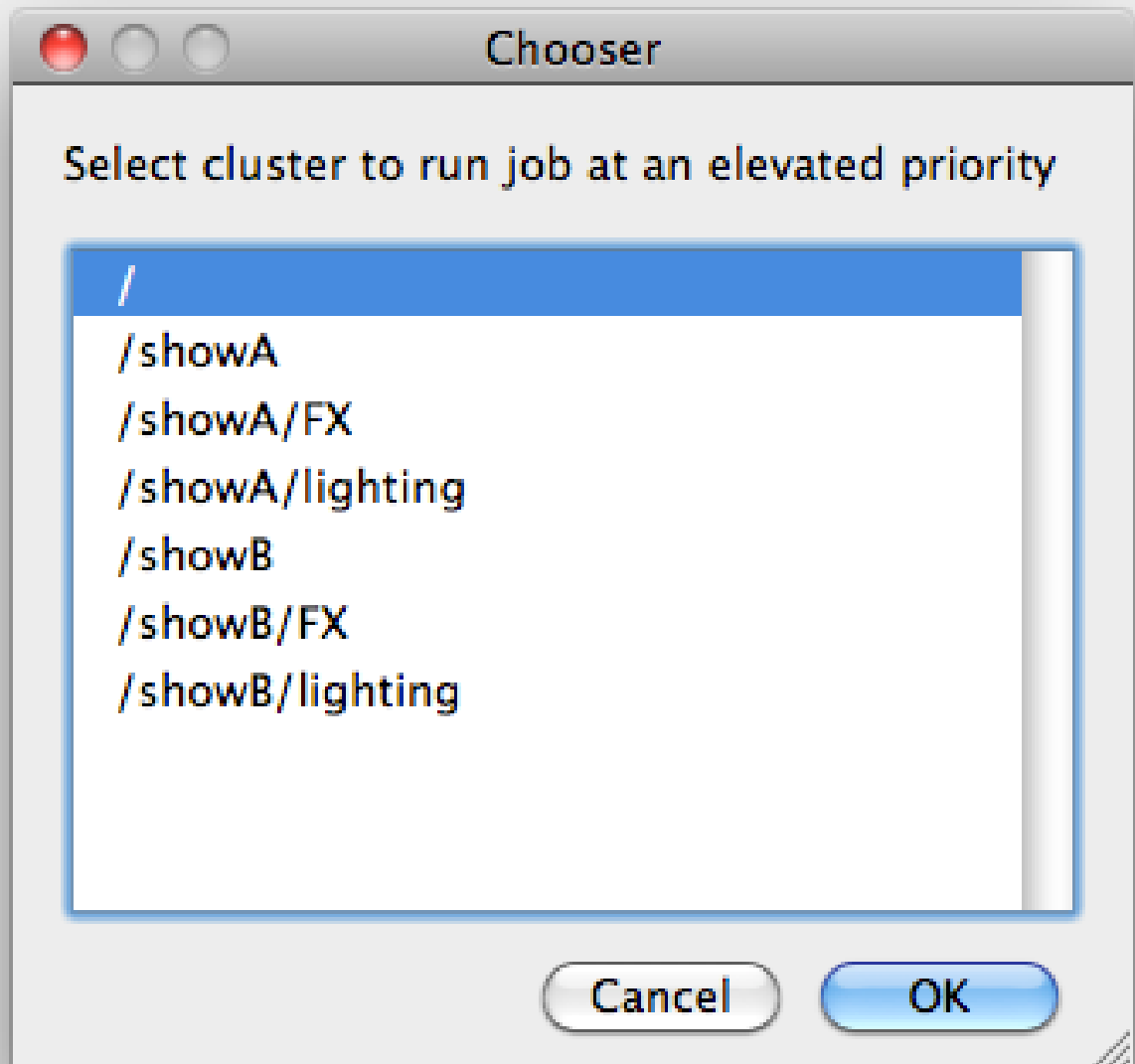
Explicit list of Worker hostnames that are **not** allowed run the job (comma-separated).

## 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].

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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:

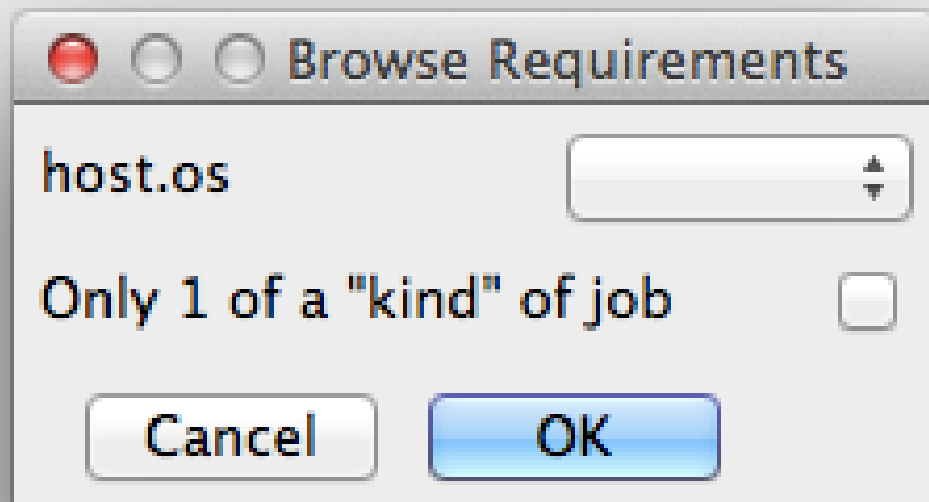
- "host.processors.avail.=4" means only run this job on workers that have 4 or more slots available
- "host.processors.used=0" means only run this job on workers with 0 slots in use
- "host.memory.avail=400" means only run this job on workers that have 400 memory available

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

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 qbwrk.conf](#)
- [worker\\_groups](#)
- [worker\\_cluster](#)
- [How to use clustering for workers](#)