

How to restrict a host to only one instance of a given kind of job, but still allow other jobs

A Qube job has a "kind" parameter; this is a string which can be set to any value the user desires.

It's mostly used to say "Only run one of this **kind** of a job on a worker at once". This tells the queuing system to filter out all hosts which have this kind of job already running.

When you submit a job, you can do this to keep only one of your job's kind on a host:

WranglerView / ArtistView submission example:

- set the job's **kind** to *myKind* (or any other value you want)
- set the job's **requirements** to *not(job.kind in host.duty)*

Command-line examples:

```
qbsub --kind myKind --requirements "not(job.kind in host.duty.kind)" ...
```

The cool thing is you can do it with jobtypes as well: (only run 1 myCustomJobType job on a worker at once)

```
qbsub --type myCustomJobType --requirements "not(host.duty.type has myCustomJobType)" ...
```

API example:

```
job = {  
    'prototype': 'cmdline',  
    'package': {'cmdline': 'sleep 30'},  
    'name': 'testing the job kind',  
    'kind': 'test',  
    'requirements': 'not(job.kind in host.duty.kind)'  
}
```