



#### Synchronous Control flow:

- Master/RE-Manager is used to set the job descriptions and launch the BigJob.py(BigJob Manager) which posts the job description to the advert service.
- As and when a BigJob becomes active, BigJob.py launches the BigJob agents.
- The bigjob agents poll for jobs in the advert server and allocate the resources to the subjobs
- The subjob in this case is the replica. The replicas are now launched
- The bigjob agents launch their respective replicas and monitor them
- the master collects the results and posts them to the advert server.
- the Master queries the advert server for updated states/results and if it finds all replicas in done state, it conducts the exchange step
- the master then re-submits the job descriptions to the advert server
- the bigjob agent polls for jobs and launches the replicas

#### Time for each step

- ~15 seconds
- 1 second
- partial queue time(waits till the BJ's get active)
- 1.5 seconds per sub-job
- included in 4
- run time
- 0.5 sec
- included in 7
- 0.3 seconds
- 1 sec
- 2 seconds per replica