

Interactive jobs

JCU HPC provides a few options for running interactive jobs:

1. Windows session hosts - for software only available on a Microsoft Windows operating system.
 - a. You will need to submit a request for access to Windows session hosts. One or meetings are likely to be arranged to identify requirements.
 - b. Local storage on the session hosts operates as "scratch space" - no protection, scheduled deletion of old files.
 - c. The amount of CPU and memory resource available on session hosts is small.
2. HPC cluster login nodes - for development and testing or workloads that are not resource intensive.
 - a. If your work is GUI based, you will need to use a connection that can pass graphics back to your personal computing device.
 - b. There are only two login nodes, each with 40 cores (80 threads) and 384GB of memory.
3. HPC cluster compute nodes - for any workload that can be completed on a compute node.
 - a. Idle interactive jobs may be deleted by HPC staff during times of high-resource demand.
 - b. You will only get a prompt (logged into a compute node) back quickly if sufficient free resources exist to be dedicated to your work.
 - c. For command line work, your job submission command might look like:

```
qsub -I -l select=1:ncpus=1 -l mem=4gb -l walltime=2:00:00
```

- d. For GUI work, your job submission command might look like:

```
qsub -X -I -l select=1:ncpus=1 -l mem=8gb -l walltime=1:00:00
```

Note: Many HPC facilities do not allow running of interactive work on a cluster, due to the amount of resource wastage involved in interactive work. Some may provide virtualized platforms for interactive work - similar to what JCU is providing for computational work performed on a Microsoft Windows operating system. JCU HPC is likely to return to virtualized login nodes in future.