Getting Started on OzSTAR

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- Setting up environment

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- Getting the needed software (modules)

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- Getting the needed software (modules)
- **Submitting basic jobs**

Let’s login first

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```
ssh -X username@ozstar.swin.edu.au
```

There’s great documentation

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https://supercomputing.swin.edu.au/docs/index.html

Getting software to work

- module spider *name*

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- module load *name*

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- module load *name*
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- module purge
- “ml” is a short-cut for both module load and module list

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- Smart: module pu will *PURGE*

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- module load numpy/1.14.2-python-3.6.4
- First: module load gcc/7.3.0
- **module load numpy/1.14.2-python-3.6.4 will work now**

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- Can submit interactive jobs
- Write scripts to submit “real” jobs

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- writing a good scheduler is very hard
- slurm is a fairly new scheduler, with wide-spread usage

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- #PBS directives are recognised by slurm (h/t to Greg)
- basic slurm scripts should be familiar
- interactive jobs with “sinteractive” (should give you 1 cpu for whatever the default time is, probably 10 mins)

Checking cluster status

- sinfo

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- squeue

Basic SLURM script

```
#!/bin/bash -l
#SBATCH --job-name=jobname
#SBATCH --partition=skylake # which queue
#SBATCH --time=01:00:00
#SBATCH --ntasks=32
#SBATCH --mem-per-cpu=2G
#SBATCH --ntasks-per-node=16
#SBATCH --cpus-per-tasks=1
#SBATCH –nodes==2
#SBATCH --export==NONE # export env. variables

module purge
module load ****

srun ./a.out
```

https://support.pawsey.org.au/documentation/display/US/SLURM#SLURM-InteractiveJobs

Check/modify job

Check/modify job

- scontrol show job [job id]

Check/modify job

- scontrol show job [job id]
- scontrol holdu/releaseu [job id]

Check/modify job

- scontrol show job [job id]
- scontrol holdu/releaseu [job id]
- scancel [job id]