

Lab 2 - Getting started with supercomputing

2.3 Marenostrum file systems

Active Archive has 2 dedicated machines (dt01.bsc.es and dt02.bsc.es) for access while GPFS can be accessed from any machine.

Active Archive has special commands for managing that actually submit a job:

- dtcp, dtmv, dtrsync, dttar

Jobs can be viewed and canceled with:

- dtq, dtcancel

These commands also accept special flags:

- blocking (block read access) and time (max transfer time)

These jobs can be submitted from both login machines and dt machines.

On the other hand GPFS can be managed through the standard commands:

- cp, mv, sync, tar

Also Active Archive doesn't perform any data backup, while GPFS performs a daily, incremental backup for /gpfs/home and /gpfs/projects.

2.5 Available queues

QUEUE NAME	MAX TIME	MAX PROC
debug	02:00:00	768
interactive	02:00:00	4
training	2-00:00:00	768

2.6 Job script

```
#!/bin/bash
#SBATCH --job-name="hello world"
#SBATCH --workdir=.
#SBATCH --output=output_%J.out
#SBATCH --error=output_%J.err
#SBATCH --ntasks=1
#SBATCH --tasks-per-node=1
#SBATCH --time=00:01:00
#SBATCH --exclusive
#SBATCH --qos=debug
./hi; sleep 30 > serial.out
```