Computing
infrastructure
for **Science**

Basic Guidance for writing SLURM job scripts

Creating scripts

You can create/edit your scripts on the system using the 'vi' editor, and you should store them in your home directory. If you create scripts on a Windows PC and transfer them to the system, make sure you use an editor such as Notepad++ that is capable of saving the file with the correct (UNIX/Linux) line ending of LF, instead of the Windows standard of CR and LF.

Your scripts should be written for the 'bash' interpreter.

Your job script needs to contain a number of important parameters to enable the scheduler to accept the job, otherwise it will be rejected.
These parameters are prefixed with #SBATCH

Minimum parameters required

You should specify the partition (queue) as tgac-seed
You should specify a maximum runtime for the job
You should specify the amount of memory required

Example

```
#!/bin/bash    # all bash scripts begin like this
#SBATCH --partition=tgac-seed  # use the tgac-seed queue
#SBATCH -n 4               # number of cores required
#SBATCH --mem 100          # memory pool for all cores
#SBATCH -t 0-1:00          # maximum runtime
#now run my program
source hpccore-5           # enables use of core system libs
srun /bin/sleep 500        # note the use of srun
```

You should use the srun command to launch your program(s) as job steps. This will enable the scheduler to record detailed information about your job, which is very valuable when diagnosing problems and also useful for usage accounting.

If using more than one core for your job (#SBATCH –n ?) then it is advisable to set the "-n 1" flag on srun as follows
```
srun –n 1 /bin/sleep 500        # note the use of srun
```

If you would like email notification of your job starting, ending or even failing, you can add the following parameters:
```
#SBATCH --mail-type=BEGIN,END,FAIL
#SBATCH --mail-user=fred.bloggs@gmail.com  # email address
```

TGAC-SEED Partition (Queue) Limits

The tgac-seed partition (queue) has initially been configured with the following limits:

CPU cores: 144

Memory: 4.1TB

Default time limit: 1 hour

Maximum time limit: 1 day

For more information, try `man sbatch` at the command prompt, or visit the SLURM documentation at http://slurm.schedmd.com

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