

# Running Gleam in batch on Linux

## Set up a working area on linux

- I set up an area in my Glast Users area. For example

```
$USHERNFS/RealData
```

where USHERNFS is /nfs/slac/g/glast/users/glground/usher

- Use this space to store the top level job options file for controlling the job (I still rely on the basicOptions file as much as possible)

## Setting up the environment

- Set CMTPATH. Here it is convenient to point to one of the builds already done for us by the Release Manager. You can find the specific paths on the [Release Manager page](#) . Pick one of the builds and you will see the path to it on the resulting page. Set the CMTPATH:  
in csh:

```
setenv CMTPATH /nfs/farm/g/glast/u09/builds/rh9_gcc32/GlastRelease/GlastRelease-v6r0
```

in bash:

```
CMTPATH=/nfs/farm/g/glast/u09/builds/rh9_gcc32/GlastRelease/GlastRelease-v6r0; export CMTPATH
```

- Setup the Gleam environment. Batch jobs inherit the environment of the submitting process. So, "source" the setup file (note that you will need to check the Gleam version number to do this):  
in csh:

```
source $CMTPATH/Gleam/(gleam version)/cmt/setup.csh
```

in bash:

```
source ${CMTPATH}/Gleam/(gleam version)/cmt/setup.sh
```

- Setup the top level job options environment variable to point to your top level job options file. For example:  
in csh:

```
setenv JOBOPTIONS $USHERNFS/RealData/readdigi_runrecon.txt
```

in bash:

```
JOBOPTIONS=${USHERNFS}/RealData/readdigi_runrecon.txt; export JOBOPTIONS;
```

- Before you can run a job you need to reset the permissions (why?)

```
chmod u+=rwx *  
chmod g+=rw *
```

does the trick for me.

## Submit the batch job

- Use "bsub" to submit to the batch system (see the [Glast batch farm page](#) for more information):

```
bsub -q long -o $USHERNFS/RealData/recon.out -R rhel4 $CMTPATH/Gleam/v5r8p1/rh9_gcc32/Gleam.exe
```

- use "bjobs" to check on the status of the job

## In theory this can be done from a shell script...

- But I could not get the following to work. Basically, when I source readdigi\_runrecon.csh it tells me that it can't find Gleam, essentially because the CMTPATH is undefined.  
What can I say other than it is for these types of reasons that I don't like linux...

```
#!/bin/csh
#
#echo 'Default read digi - run recon starting at:' ; date
#
unsetenv LD_LIBRARY_PATH
setenv CMTPATH /nfs/farm/g/glast/u09/builds/rh9_gcc32/GlastRelease/GlastRelease-HEAD1.420
pushd $CMTPATH/Gleam/v5r8p1/cmt
source setup.csh
#
popd
setenv JOBOPTIONS $USHERNFS/RealData/readdigi_runrecon.txt
bsub -q xlong -G glastgrp -o $USHERNFS/RealData/recon.out $CMTPATH/Gleam/v5r8p1/rh9_gcc32/Gleam.exe
#
#echo 'Default read digi - run recon ending at:' ; date
```