

## Working on TGCC

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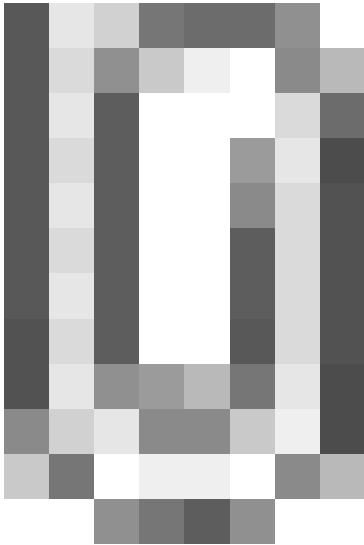
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## 1. TGCC presentation

■ <http://www-hpc.cea.fr/en/complexe/tgcc.htm>

## 2. TGCC's machines and file systems



## 3. How to install your environment on TGCC

- More information on the open-access website: ■ <http://www-hpc.cea.fr/en/complexe/tgcc.htm>  
Online access to the machines' users manual (you will need a TGCC login and password): ■ <https://www-tgcc.ccc.cea.fr/> .
- Online access to technical issues and news : ■ <https://www-tgcc.ccc.cea.fr/en/news/index.html>
- The available TGCC's machine is currently **curie** (Bull Sandybridge).
- Note: the **\$HOME/snapshot** directory contains hourly, daily, and weekly backups of your \$HOME files.

It is important to take the time to install a comfortable and efficient environment.

We suggest the user to use the p86ips1 login's environment (in bash) as an example (either copy or source the `~p86ips1/.bashrc` file). See the `~p86ips1/.bashrc` file

```
ryyy999@curie: cat ~/.bashrc
#-----
# PLATFORM ENVIRONMENT
#-----
source ~p86ips1/.bashrc
ryyy999@curie: cp ~p86ips1/.profile .
```

In this environment is specified:

the path to the compiler tool `fcm` and to the `rebuild` tool which recombines output files from a parallel model:

```
export PATH=~p86ips1/fcm/bin:~p86ips1/X64_CURIE/bin:$PATH
```

- the load of modules giving access to computing or post processing libraries and tools needed on our platform (done in `~p86ips1/atlas_env_netcdf4_curie_ksh`). The revision numbers may change, currently (23/10/2014) following modules are loaded for computing. Note the netcdf 4 library:

```
module load ghostscript/9.04
module load ferret/6.6.7
module unload cdo
module unload nco
```

```

module unload netcdf
module unload hdf5
module load gsl/1.14
module switch hdf5 hdf5/1.8.9_parallel
module switch netcdf netcdf/4.2_hdf5_parallel
module load cdo
module load imagemagick/6.7.4
module load nco/4.1.0

```

## 4. Project and computing needs

- To find out the computing time used by the projects you are involved in (daily update):

```
ryyy999@curie: ccc_myproject
```

- Specify in the header the project from which your job will use computing time:

```
#MSUB -A genxxx
```

## 5. About file systems

### 5.1. Quotas

To check the available and used storage capacities of HOME, SCRATCH, CCCWORKDIR and CCCSTOREDIR:

```
ryyy999@curie: ccc_quota
```

On the curie machine this command will also return the space used by scratch (a specificity of the curie machine).

### 5.2. SCRATCHDIR

The \$SCRATCHDIR directory is often cleaned and only files that are less than 40 days are stored.

### 5.3. CCCWORKDIR

The \$CCCWORKDIR directory corresponds to the \$WORKDIR directory on curie. It is large but its content is not backed up.

### 5.4. CCCSTOREDIR

To manipulate the files in /ccc/store a few commands are useful:

```

# Demigrate a list of files on CCCSTOREDIR, see also "ccc_hsm -h"
ccc_hsm get $CCCSTOREDIR/FICHER1 $CCCSTOREDIR/FICHER2 ...

# Demigrate recursively the files from a CCCSTOREDIR directory, see also "ccc_hsm -h"
ccc_hsm get -r $CCCSTOREDIR/REPertoire

# Find out the used space on CCCSTOREDIR
cd $CCCSTOREDIR ; find . -printf "%y %s %p \n" | \
    awk '{ SUM+=$2 } END {print "SUM " SUM/1000000 " Mo " SUM/1000000000 " Go" }'

# or use --apparent-size with du :
du -sh --apparent-size

```

### 5.5. ccc\_home command to know directory complete pathname

ccc\_home could help you to find directory complete pathname for an other user or for you .

```
>ccc_home -h
ccc_home: Print the path of a user directory (default: home directory).
usage: ccc_home [ -H | -s | -t | -W | -A | -G | -a ] [-u user]
        [-h, --help]

-H, --home           : (default) print the home directory path ($HOME)
-s, -t, --scratch   : print the scratch directory path ($SCRATCHDIR)
-W, --cccwork       : print the CCC work directory path ($CCCWORKDIR)
-A, --cccstore      : print the CCC store directory path ($CCCSTOREDIR)
-G, --cccgenostore  : print the CCC genostore directory path ($CCCGENOSTOREDIR)
-a, --all           : print all paths
-u user             : show paths for the specified user instead of the current user
-h, --help         : display this help and exit

> ccc_home -A -u ryyy999
/ccc/store/cont003/dsm/ryyy999
```

## 5.6. Storage spaces available from DODS

To store a file for the first time on dods, you must ask for dods write access by mail to the TGCC hotline access : [hotline.tgcc@cea.fr](mailto:hotline.tgcc@cea.fr).

## 6. End-of-job messages

To receive the end-of-job messages sent by the job itself: end of simulation, error,... you must specify your address in the `$HOME/.forward` file.

## 7. Simulation outputs

Final simulation outputs are stored in `$CCCSTOREDIR/IGCM_OUT` and on `$CCCWORKDIR/IGCM_OUT` regarding the ATLAS and MONITORING directories.

The dods servers on TGCC are available via: `dods.extra.cea.fr/store` (files such as Analyse/TS and Analyse/SE) and `dods.extra.cea.fr/work` for ATLAS and MONITORING.

Since June 2014, thredds server are also available and will replace dods server early 2015:

- <http://esgf.extra.cea.fr/thredds>, click on DODSSTORE, click on your login or directly : <http://esgf.extra.cea.fr/thredds/catalog/DODSSTORE/YOURLOGIN/catalog.html> and ATM (or an other component) for Analyse files (TS or SE)
- <http://esgf.extra.cea.fr/thredds>, click on DODSWORK, click on your login or directly : <http://esgf.extra.cea.fr/thredds/catalog/DODSWORK/YOURLOGIN/catalog.html> for ATLAS and MONITORING

## 8. About password

ccc\_password\_expiration helps you to know expiration date of your password. Currently password have to be changed one time per year.

```
> ccc_password_expiration
Password for xxxxx@USERS-CCRT.CCC.CEA.FR: Pppppppppp
Your password will expire in 70 days on Fri Nov 22 08:42:59 2013
> ccc_password_expiration -h
Usage: ccc_password_expiration [username[@realm]]
```

## 9. The TGCC's machines

- [Curie](#)