

Wikiprint Book

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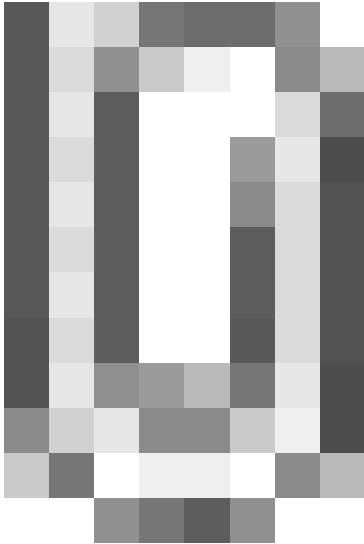
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Working at IDRIS

1. IDRIS presentation

See: <http://www.idris.fr/eng>

2. IDRIS's machines and file systems



3. How to install your environment at IDRIS

- Find more information about IDRIS on <http://www.idris.fr/eng> and for new users here : http://www.idris.fr/static/intro/doc_nouvel_utilisateur-eng.html
- Connection to IDRIS is possible with ssh command from a registered machine. All forms are available here : <http://www.idris.fr/eng/forms/index-forms.html>
- [Scripts environment at IDRIS](#)
- The Ada machine at IDRIS can be used for our configurations. **It supports the model execution and post processing.**
- Note: the software [the Tina software installed at IDRIS](#) gives access to hourly, daily and weekly backups of your \$HOME files.

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

- We recommend to follow the example of the rpsl035 login's environment which is in bash. Don't use the default `.bash_profile` but use instead the `~rpsl035/.bash_login` file. Copy this file to your home and remove the default `.bash_profile`.

```
ryyy999@ada: rm $HOME/.bash_profile
ryyy999@ada: cp ~rpsl035/.bash_login $HOME/.
```

- This file include `/smphome/rech/psl/rpsl035/.atlas_env_ada_intel_2013_0_bash` which include
 - The path of the compiling tools `fc` and the rebuild tool used to reconstruct files from a parallel model:

```
export PATH=/smphome/rech/psl/rpsl035/FCM/bin:$PATH
```

- The modules giving access to libraries and post processing tools needed on our platform.

```
module load netcdf (currently netcdf/seq/4.1.3 in interactive mode)
module load ferret/6.85
module load nco/4.4.6
module load cdo/1.6.5
```

- Avoid messages displayed when connecting on Ada and Ergon. Do the following tests:
- Make sure that the command `rsh ergon pwd` returns a unique line with the HOME on Ada.

```
ryyy999@ada: rsh ergon pwd
/arch/home/rech/yyy/ryyy999
```

Make sure the copy of a file using `rcp` works properly in the two directions. The following test transfers the file `a` containing the date:

```
ryyy999@ada: date > a ; rcp a ergon:
```

- Transfers Ada/Ergon must be done with `mfget/mfput`.

For `esgf/thredds` access, use the command `mfodds` on Ergon. This creates the link (24h after the first time) visible here:

■ http://prodn.idris.fr/thredds/catalog/ipsl_public/catalog.html

```
# Export a file:
ryyy999@ergon: mfdods my_file -d pub/ryyy999/my_dir

# Once the access activated, you must do the following to destroy a file:
ryyy999@ada: mfdods -r /u/DODS/pub/ryyy999/my_dir/my_file
```

- To give access to the WORKDIR of Ada to all (755 or `drwxr-xr-x`), you must contact the IDRIS' assistance for the level `/workgpfs/rech/grp`.

4. Accounting

Since 2016, usage of computing time and quotas are printed at beginning of each new session.

```
*****
* Consommation du projet 90826 - groupe : psl *
* ada : 10231 h ( 34.10% de l'allocation ) *
* HOME : 5394 Mio ( 95%) - Inodes - 17787 ( 11%) *
* WORKDIR : 11018 Gio ( 50%) - Inodes - 2831719 ( 80%) *
* Ergon : 188700 Gio ( 55%) - Inodes - 6177427 ( 88%) *
*****
```

To know the computing time used by your group (updated once a day):

```
p1ab999@ada:~> cpt
```

5. Things to know about file systems

5.1. WORKDIR

- The `$WORKDIR` Ada is large but it is not saved.
- The `$WORKDIR` Ada can be extended (20 To for the group for example). The project investigator can ask an extension on the IDRIS's extranet. See: ■ <http://www.idris.fr/extranet.html> or directly from an authorized IP : ■ <https://extranet.idris.fr/>.

5.2. ERGON

- The `$HOME` Ergon has to be used for archiving big files

The `$HOME` Ergon can be extended (300 To for the group for example). The project investigator can ask an extension on the IDRIS's extranet. See: ■ <http://www.idris.fr/extranet.html> or directly from an authorized IP : ■ <https://extranet.idris.fr/>.

you can use `idrls` to know the status of a file stored on ergon. See `idrls -?. m` means migrated on tape only, `-` means on disk.

```
idrls IGCM/RESTART/IPSLCM6/DEVT/piControl/01T03V14/*/Restart/*
M ACCESS L USER GROUP SIZE MOD_DATE ACC_DATE EXP_DATE FILE_NAME
= ===== = ===== ===== ===== ===== ===== ===== =====
- -rwxrwxr-x 1 rpslxxx psl 218188352 09.06.2015 22.01.2016 22.01.2017 IGCM/RESTART/IPSLCM6/DEVT/piControl/01T03
```

```
m -rwxrwxr-x 1 rpslxxx psl 1411362796 09.06.2015 22.01.2016 22.01.2017 IGCM/RESTART/IPSLCM6/DEVT/piControl/O1T03
```

5.3. Quotas

Since 2016, usage and quotas are printed at beginning of each new session.

```
*****
* Consommation du projet 90826 - groupe : psl *
* ada : 10231 h ( 34.10% de l'allocation ) *
* HOME : 5394 Mio ( 95% ) - Inodes - 17787 ( 11% ) *
* WORKDIR : 11018 Gio ( 50% ) - Inodes - 2831719 ( 80% ) *
* Ergon : 188700 Gio ( 55% ) - Inodes - 6177427 ( 88% ) *
*****
```

To check the used space and the size of the HOME, WORKDIR and ERGON:

```
# Quota HOME
ryyy999@ada: quota_u

# Quota WORKDIR
ryyy999@ada: quota_u -w

# Quota ERGON
ryyy999@ergon: quota_u
```

6. Simulation outputs

Final simulation outputs are stored on Ergon in `IGCM_OUT` directories. There are also available from Adapp in `$ARCHIVE/IGCM_OUT` but not directly from Ada.

The IDRIS's esgf/thredds server is accessible from here : http://prodn.idris.fr/thredds/catalog/ipsl_public/catalog.html

7. About Password

At IDRIS, you have a unique password for all computers. Password have to be changed one time per year. The command to change your password is `passwd`. You receive a mail 2 weeks before password expiration.

8. The IDRIS's machines

- [Ada](#) for computing part
- [Adapp](#) for post-processing part