

## Working at IDRIS

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## 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 about the Jean-Zay machine here : <http://www.idris.fr/eng/jean-zay/>
- 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>
- The Jean-Zay 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/.
```

- The .bash\_login file sources the file /smphome/rech/psl/rpsl035/atlas\_env\_ada\_intel\_2013\_0\_bash which loads libraries and post processing tools needed on our platform such as:

```
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 mfdods on Ergon. This creates the link (24h after the first time) visible here:

[http://prodn.idris.fr/thredds/catalog/ipsl\\_public/catalog.html](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
```

## 4. Accounting

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

```
p1ab999@jean-zay:~> cpt
```

If you are working on several projects, your current project is referenced by the environment variable `IDRPROJ` (`echo $IDRPROJ`). `cpt` gives information about your current project. To check accounting on other project, you need to change the value of `IDRPROJ` (`eval $(idrenv -d <other_project>)`) and run `cpt` again.

## 5. Things to know about file systems

### 5.1. WORK (\$WORK)

- The `$WORK` Jean-Zay is large and permanent but it is not backed up.
- The `$WORK` Jean-Zay 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. SCRATCH (\$SCRATCH)

- The `$SCRATCH` is a semi-permanent space with a 30-day file lifespan, not backed-up
- Very large quotas per project

### 5.3. JOBSCRATCH (\$JOBSCRATCH)

is the temporary execution directory specific to batch jobs

- The `$JOBSCRATCH` is created automatically when a batch job starts and, therefore, is unique to each job
- It is destroyed automatically at the end of the job. Therefore, it is necessary to manually copy the important files onto another disk space (the `WORK` or the `SCRATCH`) before the end of the job.

### 5.4. STORE (\$STORE)

- The `$STORE` has to be used for archiving big files
- 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/>.

### 5.5. Quotas

To check the used space and the size of the `HOME`, `WORK` and `STORE`:

```
# Quota HOME
ryyy999@jean-zay: idrquota -m

# Quota WORKDIR
ryyy999@jean-zay: idrquota -w

# Quota STORE
ryyy999@jean-zay: idrquota -s
```

### 5.6. Access

Since january 2017, access to other is prohibited. On Ada, you had to use `idracl` to give specific access. On Jean-Zay things are in progress ....  
Documentation : ????

In case of problems, please contact the IDRIS' assistance.

## 6. Simulation outputs

Final simulation outputs are stored on Jean-Zay `$STORE` space in `IGCM_OUT` directories.

The IDRIS's `esgf/thredds` server is not yet documented for Jean-Zay machine.

## 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 and Adapp are not up anymore.

- [Ada](#) for computing part
- [Adapp](#) for post-processing part
- [Jean Zay](#) for computing part (working version)