

# The Lofar Login Environment (LLE)

This page describes the standard login environment for new users on the LOFAR cluster nodes. Existing accounts can be easily modified; see below for a manual to do this.

## General

The Lofar Login Environment sets a few things for your account, and allows you to easily initialise often used packages and tools at login time. To this purpose we provide a few simple standardized login-scripts.

## Use (t)csH or bash!

To be able to use the LLE environment you must either use a (t)csH or bash login shell. We do not support scripts for any other shells.

## What to do when you get an account

### (t)csH

If you have chosen for the (t)csH shell, you do as follows:

- Log in and go to your (empty) \$HOME directory
- `> ln -s /opt/login/cshrc .cshrc` (Note: on lioffen you should refer to /app/login/cshrc !)
- Log out and login again; you should see a welcome message.

### bash

If you have chosen for the bash shell, you do as follows:

- Log in and go to your (empty) \$HOME directory
- `> ln -s /opt/login/bashrc .bashrc` (Note: on lioffen you should refer to /app/login/cshrc !)
- Log out and login again; you should see a welcome message.

## How to transform existing accounts?

To use the LLE in an existing account, rename your existing .cshrc or .bashrc in your \$HOME and follow the instructions given above.

Make sure that possibly existing files `$HOME/.login`, `$HOME/.setenv` and `$HOME/.alias` that you still want to use at login time are renamed to `$HOME/.mylogin`, `$HOME/.mysetenv`, `$HOME/.myalias`.

## The LLE scripts

Some of the details are presented here.

### What is `$APS_LOCAL` ?

The root directory for the scripts is provided in environment variable `$APS_LOCAL`, whose value is set in the `.cshrc` and `.bashrc` scripts. The actual value depends on your location:

- New CEP processing cluster: `/opt`
- lioffen and its nodes: `/app`

### Login scripts

In directory `${APS_LOCAL}/login` are a number of default login scripts. The scripts ending with `.bash` are for the bash shell, the others for the (t) csh shell:

- `cshrc` → sets `APS_LOCAL` and calls the other scripts
- `login` → Displays welcome message; no settings
- `setenv` → adds some items to `$PATH`, sets your prompt, etc.
- `alias` → some default aliases to make life easy
- `setpackages` → script to define packages to initialize at login-time

Users should **NEVER** modify these default scripts at this location!

### Personal command aliases: `.myalias`

Personal command aliases can be added to a file `$HOME/.myalias`. When this file exists, the `.cshrc` or `.bashrc` script will read this file after reading the default `${APS_LOCAL}/login/alias(.bash)`.

### Personal environment settings: `.mysetenv`

Personal extensions to `$PATH`, personal environment variables, personal prompt setting, or overloaded existing environment variables should be done in a file `$HOME/.mysetenv`. If this file exists, the `cshrc` or `bashrc` script will read this file.

## Package initialisation: .mypackages

To initialize the use of installed packages on your system you must create a file `$HOME/.mypackages`. If this file exists, it is used by the LLE script `setpackages`.

In the directory `${APS_LOCAL}/scripts` you will find available package initialization scripts, named like `do<package>` (e.g., `doCasa`, `doLoFIm`). Whenever you add a package to the file `$HOME/.mypackages`, the associated script in `$APS_LOCAL/scripts` will be source'd.

The file `$HOME/.mypackages` can look like this example:

```
Casa
doLoFIm
```

The packages can be on one line or on multiple lines. Also note the use of `<package>` and `do<package>`; both are accepted. If an initialization script for a package cannot be found, it will be reported to the user.

### How to add a personal package

Apart from the systemwide `do<package>` files provided in directory `$APS_LOCAL/scripts`, users can add their personal `do<package>` files in their `$HOME` and have these run at login time. If there is a `do<package>` file both in `$HOME` and in `$APS_LOCAL/scripts`, the version in `$HOME` has preference and will be executed. This can be used to test a different version of a package, etc... To add a new, personal, package, act as follows:

- Install the package
- Create a `$HOME/do<package>` initialization script (e.g., adding the installation directory to your `$PATH`)
- Add `<package>` to the list of packages in file `$HOME/.mypackages`

## Starting X environment

To start up an X environment you have to make sure that

- The files `$HOME/.xinitrc` and `$HOME/.xsession` are removed

Determine the colordepth that you need (8, 16, 24 bit display) and type:

```
startx -- :1 -depth <colordepth>
```

This should start your X environment at the proper colordepth. This will create an additional X Server next to the one you are already running. You can access this with `Alt-F8` or `Cntl-Alt-F8`. The `F7` variant will give you back your normal X.

## Help!

If you need help, or have questions, or want to give any other comments, contact Arno Schoenmakers or Adriaan Renting.

New do<xxxx>-files can be added at any time if you have a new package that should be available systemwide. Contact Arno Schoenmakers or Adriaan Renting in this case.

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