

# The Lofar Login Environment (LLE)

This page describes the standard login environment for new users on the LOFAR cluster nodes like [CEP3](#). 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

The CEP3 user creation system has been setup such that new accounts will have all needed files and links in \$HOME in place already. So you do not have to change anything to work with the LLE.

## How to transform existing accounts?

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

## The LLE scripts

Some of the details are presented here.

### Login scripts

In directory /opt/cep/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 → login settings for (t)csH environments.
- bashrc → login settings for non-interactive logins.
- profile → login settings for interactive logins.
- login → Displays welcome message; no settings.

- `setpackages` → script to define packages to initialize at login-time.

Users should **NEVER** modify these default scripts. In their `$HOME` these should be symlinks to the versions in `/opt/cep/login`. Personalization of your login is possible through other scripts like `.myalias` and `.mysetenv` (see below).

If you like to read more on the files that play a role in the bash login, [here is a nice link](#).

## 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.

## 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

Many packages are available from the distribution of the Operating System. Several packages are added lateron, see [this page for CEP3 packages](#). To activate these, environment variables like `PATH`, `LD_LIBRARY_PATH`, `PYTHONPATH` must be set correctly. To help you, we have installed the environment module software (see [this section in the CEP3 user documentation](#)).

## `.mypackages`

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

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

```
casa
lofim
```

Provide only one package name per line. For packages that are build daily and that have a version available for all days of the week (LUS, Lofim), you can also specify a day of week in the `.mypackages` file:

```
lofim Tue
```

## How to add a personal package

Apart from the systemwide module initialization files provided in directory `$APS_LOCAL/modulefiles`, users can add their personal modulefiles in their `$HOME/modulefiles` and have these run at login time. To add a new, personal, modulefile, act as follows:

- Install the package
- Create a `$HOME/modulefiles/<package>/<modulefile>` environment module script (e.g., adding the installation directory to your `$PATH`). See [this manula for writing modulefiles yourself](#).
- 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.

Due to the large latency and largte bandwidth required for X-traffic, it is advisable to connect to the CEP systems with the NX-client on your system. See [this page for more info](#).

## Help!

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

New module-files can be added at any time if you have a new package that should be available systemwide. Contact Arno Schoenmakers or Reinoud Bokhorst in this case.

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