Available packages on the LOFAR offline clusternodes

This page gives an overview of available packages, other than the 'standard' ones distributed as part of the Linux distribution, and how to initialize these. See the Login environment page for instructions on activating packages at login time.

Packages

| Package | Description | Initialize | Update frequency | Comments |
|------------|-------------------------------|----------------|---------------------|--------------------------------|
| Casa | Browser, viewer | use Casa | infrequent | NRAO development |
| GDL | Gnu data language | use GDL | infrequent | Contains GDL, GSL, PLPLot |
| grid | | | | |
| hdf5 | library | - | infrequent | Used by other packs, now 1.8.2 |
| hdf5viewer | | - | infrequent | |
| LofIm | Lofar Imaging | use LofIm | daily | Follow this link |
| pipeline | | | | |
| Pythonlibs | Several useful Python modules | use Pythonlibs | infrequent | Follow this link |
| wcslib | library | - | infrequent | Used by other packs, now 4.3 |

Descriptions of Packages

Casa

This is the NRAO developped package that provides Graphical interfaces like those available in the old AIPS++ packages. It provides the following useful tools (see directory /opt/Casa/bin):

- casabrowser \rightarrow A table browser (much like the old glish-based browser)
- casaplotms \rightarrow A tool to make 2-D plots of data in a MS
- casaviewer → Visualizer
- casapy \rightarrow Casa's Python interface.

Extensive documentation can be found on this NRAO-hosted webpage.

LofIm

The package LofIm (Lofar Imaging) consists of the following previously known subpackages:

- casacore
- casarest
- pyrap
- LOFAR
- ASKAPsoft

All these are build every night in a single go, with source code extracted from each package's source repository. Activating the LofIm package ensures that you will have a consistent set of libraries and executables.

To activate it on commandline use:

> use LofIm

This will activate the version that was build last night. It will add all settings needed to use the subpackages toyour PATH, PYTHONPATH and LD_LIBRARY_PATH environment variables.

As all of the individual subpackages are in a development phase, we **cannot** guarantee that each nightly build is bugfree, or even that is has succeeded. Therefore, we keep a buffer of previous builds for a week. This ensures that if a nightly build has failed, you can use a (working) previous build. To activate a previous build on commandline use:

```
> use LofIm <day> (e.g., use LofIm Wed)
```

If the problem that caused a build to fail has not been solved in a week's time, you will not be able to use the package until it has been fixed. In due time we will implement a system with a release policy, that will enable you to use 'stable' versions of these libraries.

Pythonlibs

We have made available several useful Python modules. These can be activated with a single command:

> use Pythonlibs

(see this page for information on how to activate at login time). The Pythonlibs currently contain:

- Numpy \rightarrow version 1.3.0
- SciPy \rightarrow version 0.7.1
- matplotlib \rightarrow version 0.99.1.1
- PyFits → version 2.2.2
- PyEphem → version 3.7.3.4
- **PyFFTW** \rightarrow version 0.2
- PyTables → version 2.1.2
- H5Py \rightarrow Version 1.2.1

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