

Things needed to install LOFAR package

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1 Dependencies

1.1 Installable from repositories

1. cmake
2. scons
3. pgplot
4. fftw3 library
5. libreadline
6. libcfitsio
7. libhdf5
8. blas/lapack
9. bison
10. python
11. ipython
12. cpython?
13. numpy > 1.6
14. scipy > 0.10
15. boost + boost:python
16. pyfits
17. f2c
18. f2py

1.2 Compilable (in this order)

1. wcslib (<ftp://ftp.atnf.csiro.au/pub/software/wcslib/wcslib.tar.bz2>)
2. casacore-1.5 (<http://code.google.com/p/casacore/wiki/BuildInstructions>)
3. pyrap-1.1 (<http://code.google.com/p/pyrap>)
4. casarest (<http://www.astron.nl/meqwiki/LinkingWithCasaCore>)
5. casapy (https://svn.cv.nrao.edu/casa/linux_distro/)
6. MonetDB
7. healpy

2 Cmake tricks

To specify special pathes/flags for cmake one might use command-line options. But much-better option is to set options in a file. In LOFAR a variants file is used for this purpose. It is located in `CMake/variants` and named `variants.{$hostname}`. An example is listed below:

```

option(USELOG4CPLUS      "log4cxx is used" OFF)
option(USELOG4CXX       "log4cxx is used" OFF)
option(BUILD_SHARED_LIBS "Build shared libraries" ON)
set(BUILD_PACKAGES Offline)
set(CMAKE_C_FLAGS "-fPIC")
set(CMAKE_CXX_FLAGS "-fPIC")
set(CMAKE_INSTALL_PREFIX "/home/home/amints/LOFAR/exec/")

set(CASACORE_INCLUDE_DIR
    "/home/home/amints/LOFAR/exec/include/casacore/")
set(CASACORE_ROOT_DIR "/home/home/amints/LOFAR/exec")
set(CFITSIO_ROOT_DIR "/usr/local/hsssoft/cfitsio64/")
set(FFTW3_ROOT_DIR "/home/home/amints/LOFAR/exec/")

set(F2PY_FCOMPILER "gnu95")

message(" Tralalalala")

```

F2PY_FCOMPILER option is to specify Your Fortran compiler type for f2py.

3 After the installation is complete

You have to set up Casa, so it will know where to look for reference tables - these are `#{CASAPY}/data`, where `#{CASAPY}` is CasaPy installation folder. To do this write `.casarc` in Your home folder:

```
measures.directory: /home/home/amints/LOFAR/casapy/data/
```