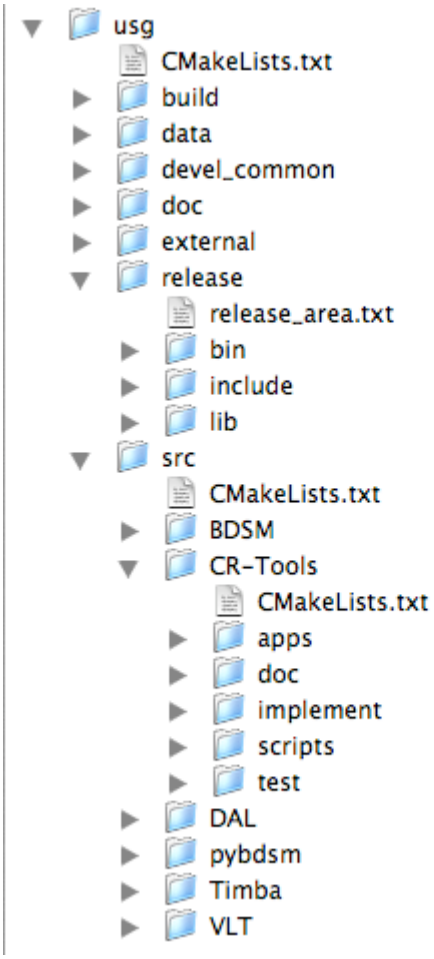
User Software :: CR-Tools :: Development

Organization of the source code



After the check-out – which will take a while – you will be left with a new directory tree organized as follows:

- **usg** is the root of the User Software code tree – go there if you want to synchronize your local version against the repository.
- **build** is used for building individual packages in the code distribution; using a separate directory for this purpose makes it easy to simply erase all compile and link attempts and start again from a clean plate.
- **devel_common** hold common tools for development; this includes e.g. the find scripts for CMake or file templates for creating new C++ classes. Unless you consider collaborating on the framework, you will not need to touch this (but you will need it).
- **doc** contains a local version of the Doxygen-based source code documentation; just go in there, fire up Doxygen and get an up-to-date version of the source code documentation.
- **external** hosts the various external packages which will be required to build parts of the LOFAR User Software; the main change her w.r.t. to old LOPES-Tools is, that critical components are distributed along with the stuff we are writing ourselves. This directory also contains **casacore**,

a collection of the core libraries of the **CASA** system.

Creating a new application

Note: At the time being there is no automated manner by which to handle the creation of a new application.

1. Create a **new source file** in the applications directory

```
lofarsoft
`-- src
    `-- CR-Tools
        |-- apps                    <-- new application goes here
        |   `-- CMakeLists.txt
        |-- implement
        `-- test
```

2. Add an entry to the `CMakeLists.txt` in the applications directory:

```
## ------------------------------------------------------------------------
##                                                              simStationBeam

if (HAVE_CASACORE)
  add_executable (simStationBeam simStationBeam.cc)
  ## linker instructions
  target_link_libraries (simStationBeam cr)
  ## installation instructions
  install (TARGETS simStationBeam
    RUNTIME DESTINATION bin
    LIBRARY DESTINATION lib
    ARCHIVE DESTINATION lib
    )
endif (HAVE_CASACORE)
```

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