

CMake tips

This is a kitchen sink of CMake tips and tricks for now. This will be cleaned up once we have completed the end to end test.

- Add this to look in /lib64
set(FIND_LIBRARY_USE_LIB64_PATHS ON)
- Put all your custom locators in cmake/Modules and add this to your main CMakeLists.txt
set(CMAKE_MODULE_PATH \${CMAKE_MODULE_PATH} "\${CMAKE_SOURCE_DIR}/cmake/Modules/")
- CMake lacks a clean; so do "out-of-source" builds. In your top folder, create a build folder (and add this to your .gitignore). Then cd into the build folder and do a cmake .. (and then make)
rm -rf build; mkdir build; cd build; cmake ..; make
- How do we switch between optimized and debug builds?
One can switch between build types by running cmake with the following:
cmake -DCMAKE_BUILD_TYPE={Debug, RelWithDebInfo, Release} ..

By default, these are the flags that are used for the different modes by default.

RelWithDebInfo corresponds to: -O2 -g

Release corresponds to: -O3 -DNDEBUG

- How do we choose to build for a different architecture/compiler?
The easiest way to switch the compiler is to

export CXX=`patch to compiler`

and then run cmake again and to pick up the new compiler. We may have to completely remove the build folder first there is some caching involved.