Rifdock compilation

Tuesday, March 30, 2021 3:47 PM

Rifdock can be compiled but requires some adjustments from an ordinary setup. Below is how to install it on ubuntu.

Part 1 - necessary tools for compiling rifdock

0) Install cmake and ninja

sudo apt install cmake
sudo apt-get install -y ninja-build

1) Compile rosetta_scripts

build rosetta_scripts with C11 and OMP

```
./ninja_build.py cxx11_omp -t rosetta_scripts -remake
./ninja_build.py cxx11_omp_debug -t rosetta_scripts -remake
```

which version depends on what you need.

2) Update the list to get the it on newer systems

Rif is using old c-compiler and for newer versions of ubuntu it is not available through its search list

sudo emacs -nw /etc/apt/sources.list.d/xenial.list

Add the following line to this file:

deb http://archive.ubuntu.com/ubuntu/ xenial main

Now one should be able to update the system:

sudo apt-get update
sudo apt install gcc-5
sudo apt install g++-5

3) Set the compiler for rifdock

Set compiler flags for compiling rifdock:

CC=gcc-5 CXX=g++-5 export CC CXX

4) Compile it with the boost library

wget -O boost_1_65_0.tar.gz https://sourceforge.net/projects/boost/files/boost/1.65.0/boost_1_65_0.tar.gz/download
tar -xzvf boost_1_65_0.tar.gz
cd boost_1_65_0/
./bootstrap.sh
./b2 -j20

5) Compile rifdock

git clone https://github.com/rifdock/rifdock
cd rifdock

mkdir build
cd build

Now compile rifdock in

CXXFLAGS="-isystem /home/ubuntu/boost_1_65_0" CMAKE_ROSETTA_PATH=/home/ubuntu/rosetta_src_2018.09.60072_bundle/main CMAKE_FINAL_ROSETTA_PATH=/home/ubuntu/rosetta_src_2018.09.60072_bundle/main/source/cmake/build_cxx11_omp cmake .. -DCMAKE_BUILD_TYPE=Release -DCMAKE_PREFIX_PATH=/home/ubuntu/boost_1_65_0/stage/lib

```
make -j20 rif_dock_test rifgen
```