Installing CMake (Deprecated, No Longer Necessary)

1. Downloaded latest .tar.gz for ubuntu here
2. `tar -xvf <downloaded_file>`
3. Enter the decompressed dir
4. Check for help if you want
    a. `./bootstrap --help`
5. Initial bootstrap without cmake params failed due to no OpenSSL, so let's hope it works without that
    a. `./bootstrap --prefix=$HOME/opt/cmake -- -DCMAKE_USE_OPENSSL=OFF`
6. Now to build
    a. `make -j 4`
7. Now to install:
    a. `make install`
8. Success?

Installing GMAT

1. Fork & clone the repo
    a. git clone --recurse-submodules git@github.com:collinsjacob127/gmat-ieee-aerospace-26.git
2. Create venv
    a. python -m venv ~/.venv/gmat
    b. source ~/.venv/gmat/bin/activate
3. Configure environment
    a. cd gmat/depends
    b. python3 configure.py
    c. *wxWidgets is required for GUI components, and requires GTK which is not on ECC. Moving forward without wxWidgets.
4. Move to build dir and create ubuntu-cmake dir
    a. cd ../build
    b. mkdir ubuntu-cmake && cd ubuntu-cmake
5. Compile Release version, with GUI disabled! (Switch Release to Debug to build the Debug version)
    a. cmake -DGMAT_INCLUDE_GUI=OFF -DCMAKE_BUILD_TYPE=Release ../../
6. Build
    a. make GmatBase -j4
    b. make GmatConsole -j4
7. Wait…
8. Release build can be found in <GMAT>/application/bin/GmatConsole
9. Debug build can be found in <GMAT>/application/debug/GmatConsoled

^ That worked great for unmodified GMAT

Setting up Chirag's OpenMP

SIMD

1. Checkout to `chirag` branch at `head`

    a. git checkout chirag
2. Compile
    a.
3. Build
    a. `make GmatConsole -j4`
4. Run
    a. `cd ../../application/bin/MonteCarlo && make && ./montecarlo_wrapper --n=62`
5. Okay

OpenMP / Block Threading

1. Checkout to `parallel/block` branch (or checkout to jake-block branch)
    a. `git checkout parallel/block`
2. Compile
    a. `cmake ../../ -B . -DGMAT_INCLUDE_GUI=OFF -DCMAKE_BUILD_TYPE=Release -DGMAT_USE_OPENMP=ON`
3. Build
    a. `make GmatConsole -j4`
4. Run
    a. `cd ../../application/bin/MonteCarlo && make && ./montecarlo_wrapper --n=62 --threads=<n_threads for block parallelism>`
    b. *My modifications with block parallelism are in the jake-block branch of my forked repo. Will PR to chirag's repo in the morning.

I had thought the parallel/block branch was broken initially, and independently took the steps to fix it in src/base/CMakeLists, etc. but now realize that had already been done.