

CORSIKA 8 Tutorial – instructions

Download & build CORSIKA 8

see also instructions on website <https://gitlab.iap.kit.edu/AirShowerPhysics/corsika>

1. install **conan** if you don't have it yet:
`pip3 install -user conan`
2. make sure conan is inside \$PATH (will be executed by cmake):
`export PATH=$PATH:$HOME/.local/bin`
3. clone CORSIKA 8:
`git clone --recursive
https://gitlab.iap.kit.edu/AirShowerPhysics/corsika.git`
4. create build directory (anywhere you want, here: same level as source repo)
`mkdir corsika-build && cd corsika-build`
5. build C8 with inside build directory, pointing to source directory
`cmake ../corsika
make -j4`
(if you're impatient, abort when building the tests...)

You have the „framework“ part ready to go. Let's now build an example application:

1. create example build directory
`cd ..
mkdir corsika-build-examples && cd corsika-build-examples`
2. compile example(s)
`cmake -Dcorsika_DIR=$PWD/../corsika-build ../corsika/examples
make corsika`

Make yourself familiar with `bin/corsika` (`help -h`) and run a shower! Most likely PROPOSAL needs to generate tables, which takes an eternity...

Now install CORSIKA 8 Python library and some other useful ones:

1. `pip install --user ../corsika/python/`
2. `pip install --user boost_histogram mplhep`