

```
17:55 ~/Documents/PhD/PUMAS % git clone --recursive https://github.com/niess/mulder.git
Cloning into 'mulder'...
remote: Enumerating objects: 728, done.
remote: Counting objects: 100% (158/158), done.
remote: Compressing objects: 100% (104/104), done.
remote: Total 728 (delta 90), reused 106 (delta 50), pack-reused 570
Receiving objects: 100% (728/728), 251.45 KiB | 3.81 MiB/s, done.
Resolving deltas: 100% (476/476), done.
Submodule 'gull' (https://github.com/niess/gull.git) registered for path 'deps/gull'
Submodule 'pumas' (https://github.com/niess/pumas.git) registered for path 'deps/pumas'
Submodule 'turtle' (https://github.com/niess/turtle.git) registered for path 'deps/turtle'
Cloning into '/Users/yanwenhong/Documents/PhD/PUMAS/mulder/deps/gull'...
remote: Enumerating objects: 155, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (13/13), done.
remote: Total 155 (delta 5), reused 22 (delta 4), pack-reused 129
Receiving objects: 100% (155/155), 194.97 KiB | 1.03 MiB/s, done.
Resolving deltas: 100% (35/35), done.
Cloning into '/Users/yanwenhong/Documents/PhD/PUMAS/mulder/deps/pumas'...
remote: Enumerating objects: 1385, done.
remote: Counting objects: 100% (75/75), done.
remote: Compressing objects: 100% (45/45), done.
remote: Total 1385 (delta 24), reused 50 (delta 17), pack-reused 1310
Receiving objects: 100% (1385/1385), 811.88 KiB | 7.45 MiB/s, done.
Resolving deltas: 100% (803/803), done.
Cloning into '/Users/yanwenhong/Documents/PhD/PUMAS/mulder/deps/turtle'...
remote: Enumerating objects: 1246, done.
remote: Counting objects: 100% (155/155), done.
remote: Compressing objects: 100% (71/71), done.
remote: Total 1246 (delta 75), reused 155 (delta 75), pack-reused 1091
Receiving objects: 100% (1246/1246), 439.89 KiB | 415.00 KiB/s, done.
Resolving deltas: 100% (808/808), done.
Submodule path 'deps/gull': checked out '286ace553a4328a4c61448817e40a799bd8fc50a'
Submodule path 'deps/pumas': checked out '529976ef51bd420f37ec63bd3f615784d35b626'
Submodule path 'deps/turtle': checked out 'c1c8a82eaf5df978114c20bf2b87f25609088c79'
```

```
17:55 ~/Documents/PhD/PUMAS % ls
Backward Monte-Carlo applied to muon transport.pdf
Backward Monte-Carlo applied to muon transport2018.pdf
```

```
Files
Literature
PUMASListing.pages
PUMASLog.key
PUMASLogFile.pages
Progress
TURTLE.pdf
The PUMAS library.pdf
Tutorials - PUMAS.pdf
```

```
VTP
dummyTests
gcclly.pdf
gdal-3.6.4
mulder
pumas12
questionsYanwen.pdf
turtle12
```

```
17:55 ~/Documents/PhD/PUMAS % cd mulder
17:55 ~/Documents/PhD/PUMAS/mulder % git checkout dev
```

```
M
  deps/turtle
branch 'dev' set up to track 'origin/dev'.
Switched to a new branch 'dev'
```

```
17:55 ~/Documents/PhD/PUMAS/mulder % git submodule update
Submodule path 'deps/turtle': checked out 'aa5366b522abcf8114e478b33fdbc02de9d9f'
```

```
17:55 ~/Documents/PhD/PUMAS/mulder % make package
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -c -o src/wrapper.o src/wrapper.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
src/wrapper.c:552:30: warning: format string is not a string literal (potentially insecure) [-Wformat-security]
    printf(msg, dump);
                          ^
```

```
/Applications/Xcode.app/Contents/Developer/Platforms/MacOSX.platform/Developer/SDKs/MacOSX.sdk/usr/include/secure/_stdio.h:47:56: note: expanded from macro 'sprintf'
    __builtin___sprintf_chk (str, 0, __darwin_obsz(str), __VA_ARGS__)
                                                                ^
```

```
src/wrapper.c:552:30: note: treat the string as an argument to avoid this
    printf(msg, dump);
                          ^
```

```
"/Applications/Xcode.app/Contents/Developer/Platforms/MacOSX.platform/Developer/SDKs/MacOSX.sdk/usr/include/secure/_stdio.h:47:56: note: expanded from macro 'sprintf'
    __builtin___sprintf_chk (str, 0, __darwin_obsz(str), __VA_ARGS__)
                                                                ^
```

```
1 warning generated.
```

```
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -o src/gull.o -c deps/gull/src/gull.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -o src/pumas.o -c deps/pumas/src/pumas.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_client.o -c deps/turtle/src/turtle/client.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_ecef.o -c deps/turtle/src/turtle/ecef.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_error.o -c deps/turtle/src/turtle/error.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_io.o -c deps/turtle/src/turtle/io.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_io_asc.o -c deps/turtle/src/turtle/io/asc.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_io_geotiff16.o -c deps/turtle/src/turtle/io/geotiff16.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_io_grd.o -c deps/turtle/src/turtle/io/grd.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_io_hgt.o -c deps/turtle/src/turtle/io/hgt.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_io_png16.o -c deps/turtle/src/turtle/io/png16.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_list.o -c deps/turtle/src/turtle/list.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_map.o -c deps/turtle/src/turtle/map.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_projection.o -c deps/turtle/src/turtle/projection.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_stack.o -c deps/turtle/src/turtle/stack.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_stepper.o -c deps/turtle/src/turtle/stepper.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
```

```
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_jsmn.o -c deps/turtle/src/deps/jsmn.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include -Ideps/turtle/src -o src/turtle_tinydir.o -c deps/turtle/src/deps/tinydir.c
clang: warning: argument unused during compilation: '-shared' [-Wunused-command-line-argument]
gcc -dynamiclib -Wl,-install_name,@rpath/libmulder.dylib -o lib/libmulder.dylib.0.1.0 -O3 -g -Wall -std=c99 -shared -fPIC -Ideps/gull/include -Ideps/pumas/include -Ideps/turtle/include src/mulder.c src/mulder.h src/gull.o src/pumas.o src/turtle_client.o src/turtle_ecef.o src/turtle_error.o src/turtle_io.o src/turtle_io_asc.o src/turtle_io_geotiff16.o src/turtle_io_grd.o src/turtle_io_hgt.o src/turtle_io_png16.o src/turtle_list.o src/turtle_map.o src/turtle_projection.o src/turtle_stack.o src/turtle_stepper.o src/turtle_jsmn.o src/turtle_tinydir.o -ldl -lm
clang: error: cannot specify -o when generating multiple output files
make: *** [lib/libmulder.dylib.0.1.0] Error 1
17:57 ~/Documents/PhD/PUMAS/mulder %
```