

# How to build the project

## Build configuration

The project was built utilising the following environment:

- eclipse 3.4.1
- eclipse C/C++ Development Tools (CDT) 5.0.1
- CMake version 2.6-patch 2
- gcc (Ubuntu 4.3.2-1ubuntu12) 4.3.2

## Building the project

Building the project is easy. Follow these steps to build the project for the first time:

1. Open a terminal and browse to the root location of the source code where the `makedebug.sh` shell script is.
2. Create a debug folder with `mkdir debug` and browse it with `cd debug`.
3. In the debug folder enter '`cmake ..`' (notice the two periods, but ignore the apostrophes). CMake now builds all the configuration files necessary to compile the project.
4. After that's finished, enter `make` to build all targets. You find the binaries in `debug\bin\`.

After the initial build it suffices to call `make` from the `debug` folder to rebuild.

## Make targets

It's not necessary to build the whole project, though CMake builds only files that have been changed since the last compilation. If you want to build only a certain part of the project, you can use the following build targets by typing `make <target>`, whereas `<target>` is a placeholder for:

- `sga`
- `ega`
- `rng_test`

`sga` compiles only the Simple Genetic Algorithm, `ega` only the Enhanced Genetic Algorithm and `rng_test` compiles only the Random Number Generator and the test program. All binary names correspond to the target names.