C++ Programming
Configuring the Compiler

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C++ Standards

- C++ has many standards
- The modern versions: C++11, 14, 17, 20
  - C++11 has a huge subset of changes than classical C++
- Having the most recent GCC compiler != they are active
- You have to do 1 extra change to enable it
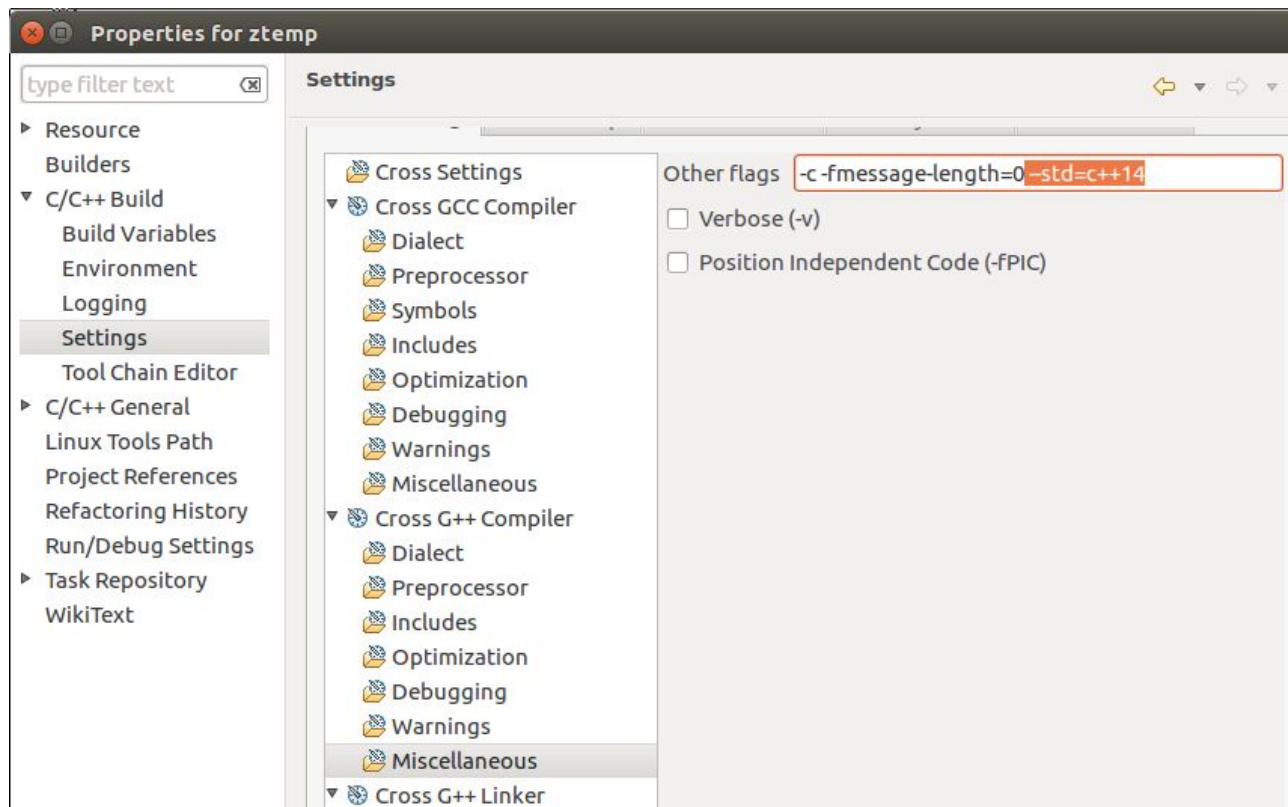 - Otherwise: Proper code won't compile on your machine!

Compiler version

- To compile C++ 11 ⇒ Compiler version 4.8 +
- To compile C++ 14 ⇒ Compiler version 5.2 +
- To compile C++ 17 ⇒ Compiler version 8.0 +
- Some code doesn't compile?
  - Maybe you need to upgrade the compiler
- Can't install a C++14 compiler?
  - https://ideone.com/ supports C++14
- Can't install a C++17 compiler?
  - https://www.onlinegdb.com/online_c++_compiler supports C++17

Configure Eclipse

- Right click on the project
- Select properties
- Go to C/C++ build
- Go to Settings
- Cross G++ compiler
  - NOT GCC (For C language)
- Miscellaneous

  - Add **--std=c++11** or

  - Add **--std=c++14 or**
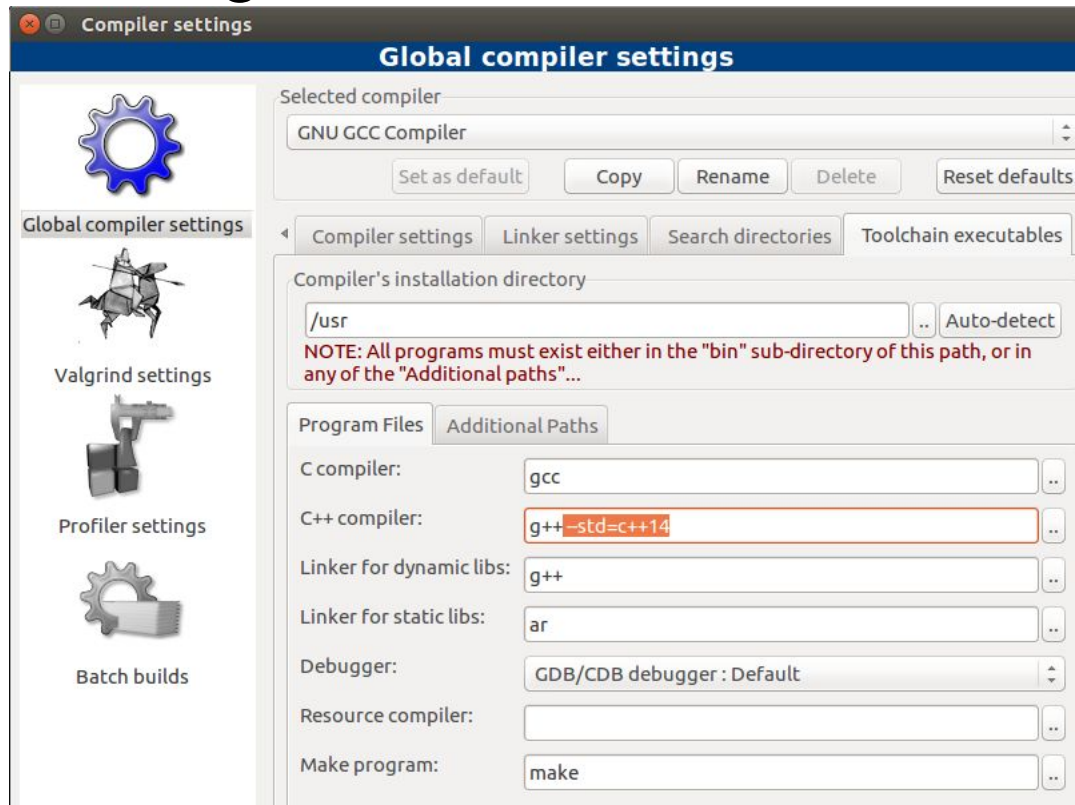
  - Add **--std=c++17**

Configure Eclipse

Configure Codeblocks

- Select the project
- From the top menu: Settings
- Select Compiler
- Select Toolchain executable
- C++ Compiler
- Add
  - **--std=c++11** or
  - **--std=c++14** or
  - **--std=c++17**
  -
-

Configure Codeblocks

Other IDEs

- Just google with your first compiler errors because of the version
- If it is checkboxes select only one version not more
  - E.g. Codelite provides 3 checkboxes. Only select one of them (e.g. c++17)

Print your activated compilation option

```cpp
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      if (__cplusplus == 201703L)
6          cout << "C++17\n";
7      else if (__cplusplus == 201402L)
8          cout << "C++14\n";
9      else if (__cplusplus == 201103L)
10         cout << "C++11\n";
11     else if (__cplusplus == 199711L)
12         cout << "C++98\n";
13     else
14         cout << "pre-standard C++\n";
15 }
16
```

Console ⊠   Problems   Tasks   Properties

\<terminated\> ztemp [C/C++ Application] /home/moust
C++14

"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."