Code::Blocks on Windows Installation Guide using Msys

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This is with Windows 7 Professional 64 bit, with the variations for 32 bit given as alternatives.

This approach uses Msys2. Msys2 is a software distribution and building platform for Windows. This isn’t exactly simple, but it does simplify the task of getting the toolchains. This won’t work on Windows XP.

Note: Msys2 is UNIX-like, in that it is case sensitive and sometimes requires exact spacing. *In the following, some things have to be entered exactly as they appear.*

If you have already installed LLVM, uninstall it.

Go to [http://www.msys2.org](http://www.msys2.org). There are two choices at the top of the page; pick the 32 bit or 64 bit version as appropriate for your system.

Run the installer. It should open a command-type window for Msys. On the msys2 page above, there are instructions that walk you through a sequence of steps. Accept the default locations. Step 5 seemed to get stuck; after a minute, I closed the page, restarted Msys from the Start menu, then moved to step 6.

This installed around 58 packages. Once that is complete, go to [https://github.com/msys2/msys2/wiki/Using-packages](https://github.com/msys2/msys2/wiki/Using-packages) for the manual.

In the Msys window we can search for packages at the $ prompt, by typing

```
pacman -Ss clang
```

Here’s what I got:

![Pacman output](image)

The one we want is the sixth entry, the “clang” package for x86_64. (for 32 bit, the first one, for i686)

Copy and paste doesn’t seem to work here. At the prompt, type

```
pacman -S mingw-w64-x86_64-clang
```

(32 bit: `pacman -S mingw-w64-i686-clang`)
Here’s what I got:

Enter y to proceed with the installation. I got another 18 packages.

That should install clang in the c:\msys64 directory (32 bit: msys32)

You can verify that you have it by looking at the contents of C:\msys64\mingw64\bin. (32 bit: msys32\mingw32\bin)


Then, configure Code::Blocks.

First, start Code::Blocks and follow these instructions (from Dr. Beck at http://borax.truman.edu/180/codeblocks_settings.txt)

The following settings should be sufficient to ensure that a local copy of Code::Blocks that you install on your own computer has the configuration needed to complete assignments for CS180 at Truman for fall 2018.

Last updated: 24 August 2018
Settings -> Editor... -> General settings:

- Use TAB character: **make sure it's unchecked**
- TAB indents: **checked**
- TAB size in spaces: **2**

Settings -> Editor... -> Margins and caret

- Right margin hint: **Visible line**
- Hint column: **78**

Settings -> Compiler... -> Global compiler settings

- Selected compiler: **LLVM Clang Compiler** Then click the **Set as Default** button

Compiler settings -> Compiler Flags

- Enable all warnings -Weverything: **checked**
- Error on language extensions -pedantic-errors: **checked**
- Have clang++ follow the C++11 ... -std=c++11: **checked**

Compiler settings -> Other compiler options

in the text box, enter the following, EXACTLY:

- Wno-c++98-compat

In addition, make these settings:

Under **Toolchain executables**, put the correct path to the Compiler’s installation directory. That is C:\msys64\mingw64 (32 bit: C:\msys32\mingw32)

![Compiler settings dialog]

Then, from the file menu of Code::Blocks, click **Save Everything**
Then close Code::Blocks. Reopen it and verify that the settings are correct. Then, type in the code shown in the screen shot above, and try building the project (which compiles main.cpp), making sure there are no errors, and run the program. The output should look like this:
Process returned 0 (0x0)  execution time : 0.047 s
Press any key to continue.