



Lime microsystems suite

- Compilation guide -

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Myriad RE

1

Introduction

The scope of this document is compilation of the lms-suite software using CodeBlocks IDE under MS Windows OS. While wxWidgets library is used for lms-suite interface, wxWidgets library set-up and compilation is discussed first. Then detailed procedure of lms-suite compilation is provided.

wxWidgets 3.0.0 library is used in this description (wxWidgets-3.0.0.zip).

CodeBlocks 13.12 bundle version with MinGW is used in this description (codeblocks-13.12mingw-setup.exe).

2

Installation and compilation of wxWidgets library

Installation and compilation of wxWidgets library is covered in this chapter.

2.1 wxWidgets installation

Step by step instruction how to install, prepare and compile wxWidgets library is provided below:

1. Install CodeBlocks to c:\CodeBlocks\
2. Install wxWidgets 3.0.0 library to the c:\libraries\wxWidgets-3.0.0\
3. Replace c:\libraries\wxWidgets-3.0.0\build\msw\config.gcc by config.gcc provided (make a copy of original one before), or make following changes in this file:
 - a. BUILD ?= release
 - b. DEBUG_FLAG ?= 0
 - c. RUNTIME_LIBS ?= static
4. Run command prompt as Administrator and execute this command: c:\CodeBlocks\MinGW\mingwvars.bat (this will setup required variables for current command prompt session).
5. Execute this command in command prompt: cd c:\libraries\wxWidgets-3.0.0\build\msw\
6. Execute this command in command prompt: mingw32-make SHELL=CMD.exe -f makefile.gcc (it is possible to speed-up the build process by engaging more CPU cores if available using -j option. This will use 2 CPU cores for instance: mingw32-make SHELL=CMD.exe -j2 -f makefile.gcc).
7. Compilation process will start right now. It will take some time to compile the library wait until this process is complete, please.

We may test compilation result of wxWidget. Simple test of wxWidget compilation:

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1. Execute this command in command prompt: `cd c:\libraries\wxWidgets-3.0.0\samples\minimal`
 2. Execute this command in command prompt: `mingw32-make SHELL=CMD.exe -f makefile.gcc`
 3. Execute this command in command prompt: `c:\libraries\wxWidgets-3.0.0\samples\minimal\gcc_mswu\minimal.exe`
 4. GUI should appear.

After these steps we may go for lms-suite software compilation.

3

lms-suite compilation

Compilation instructions of lms-suite software is discussed in this chapter.

3.1 lms-suite compilation description

It is necessary to adjust Search directories in CodeBlocks project of the lms-suite software to match setup of your machine before compilation. To do this open lms-suite project file (lms-suite.cbp) in CodeBlocks. Press right mouse button on lms-suite in Projects tab of Management window and choose Build Options... in pop-up menu as shown in Figure 1.

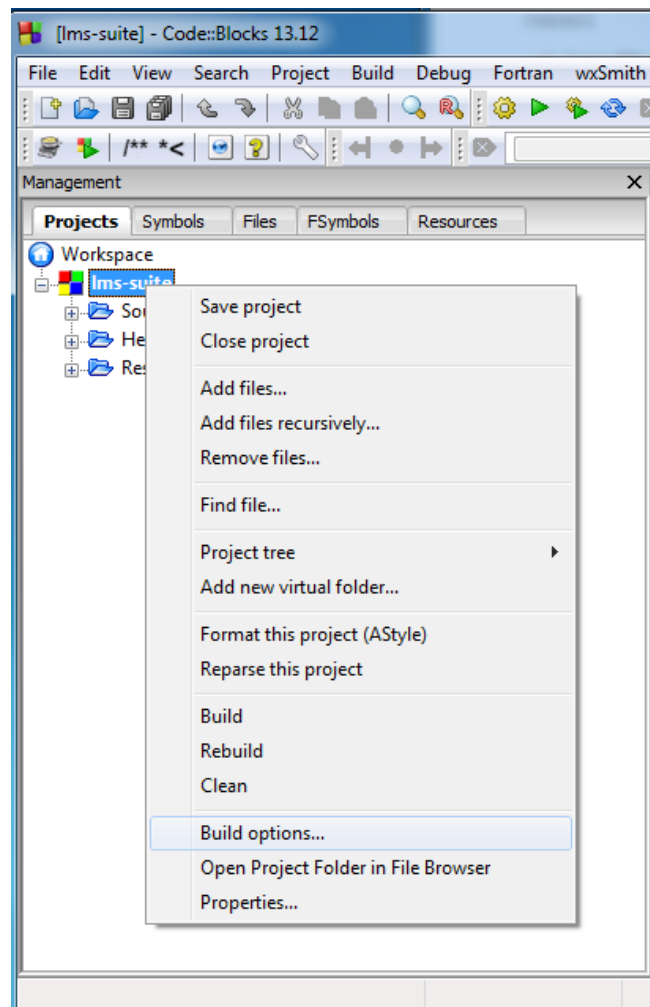


Figure 1 Pop-up menu of lms-suite project

Project build options window will appear after this command. Select Search directories tab. Select lms-suite in left panel of the window and update compiler paths for wxWidgets and FFTW libraries highlighted by red box according to your installation setup as shown in Figure 2.

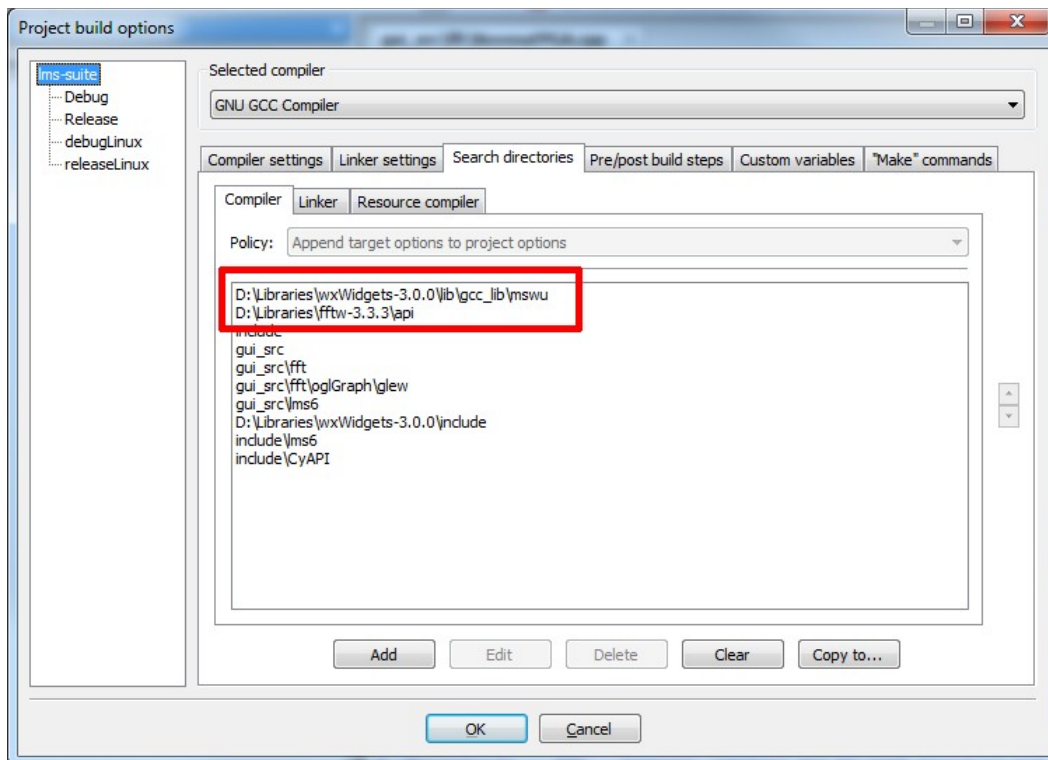


Figure 2 Compiler search directories

Select Linker tab and update Linker path for wxWidgets and FFTW libraries highlighted by red box according to your installation setup as shown in Figure 3.

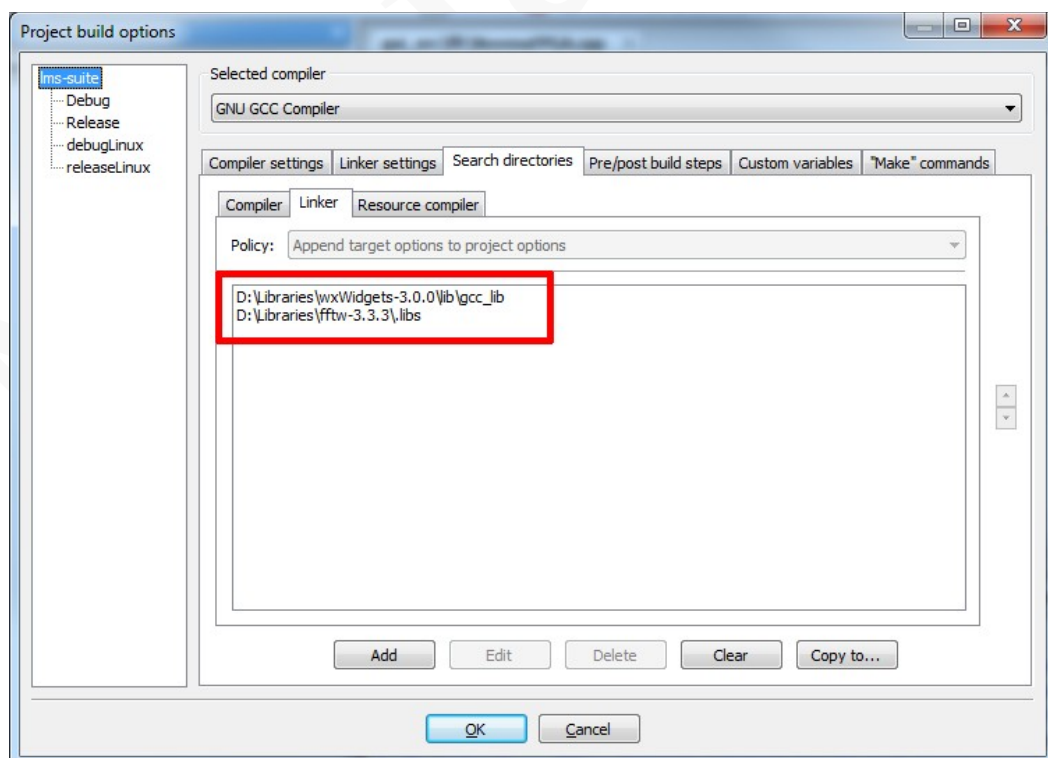


Figure 3 Linker search directories

Select Resource compiler tab and update Resource compiler paths for wxWidgets highlighted by red box according to your installation setup as shown in Figure 4.

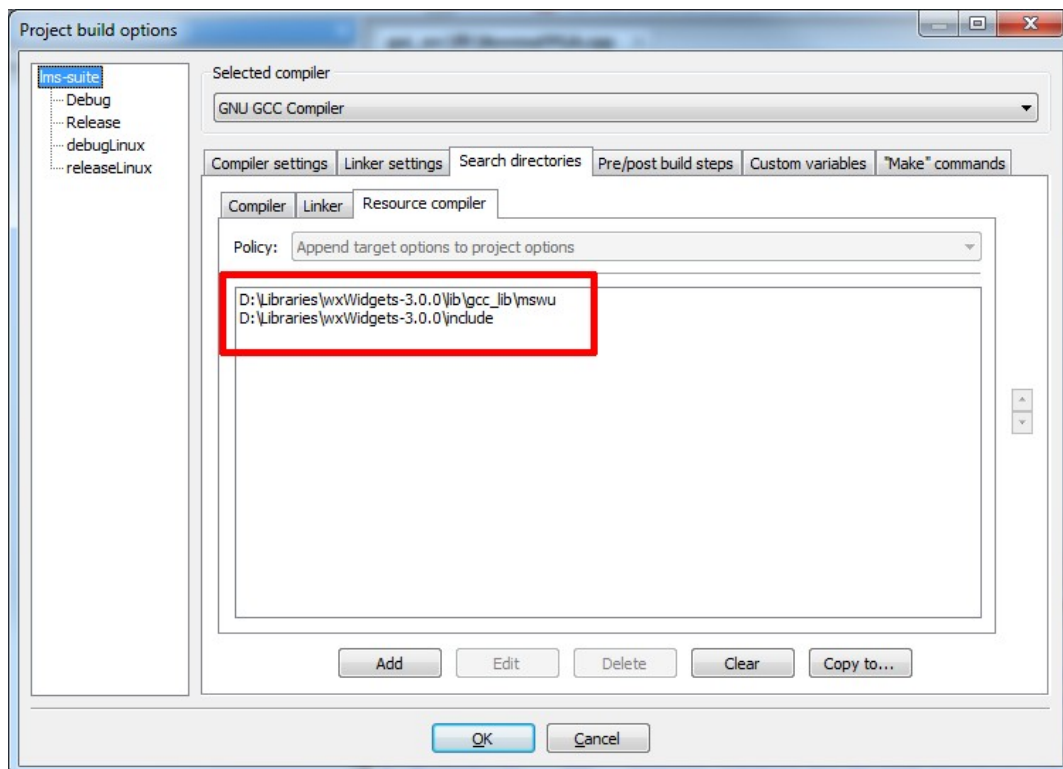


Figure 4 Resource compiler search directories

Press OK button to apply changes and to close Project build options window.

Now it is possible to compile the software. There are two targets prepared Debug and Release. Select desired build target and in CodeBlocks tool bar and push Build and run button (or F9, or menu command Build → Build and run) to compile the software as shown in Figure 5. After compilation is finished the software will be executed.

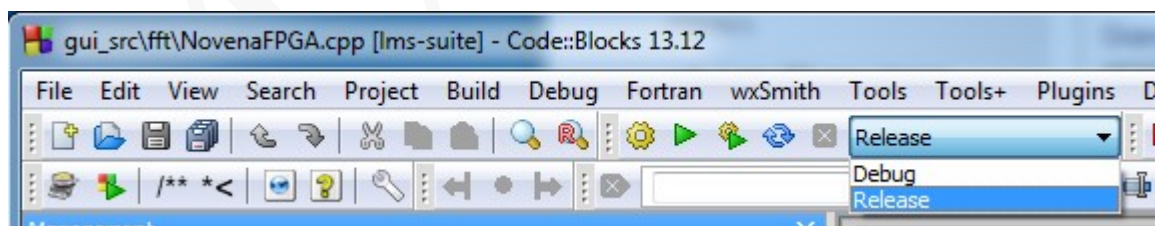


Figure 5 Build target selection