

Program of the Week PW8

This example is a sophisticated data plotting program, but to get it running is just a step beyond last week's example. It plots a sine wave onto a graphic pane and also adds a log panel to show text information derived from the running program.

This example uses a contributed widget called wxMathPlot. Information on that widget can be found at:

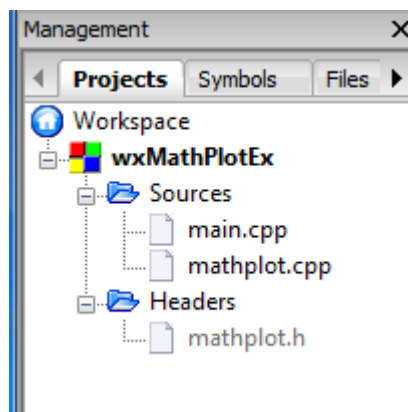
<http://wxmathplot.sourceforge.net/>

wxMathPlot is a library to add 2D scientific plot functionality to wxWidgets. It allows to embed inside your program a window for plotting scientific, statistical or mathematical data, with additions like legend or coordinate display in overlay.

wxMathPlot comes as a source and header file. Both need to be placed in the project folder and then added to the project. See Illustration 1.

The steps will be as follows:

1. Create a empty wxWidgets project within Code::Blocks called wxMathPlotEx.
2. On the class web site, open the source for the main.cpp program
3. Create a new empty file. Add that new created file to the CodeBlocks project. Name the file 'main.cpp'. Copy the code from the web site and paste it into that file. Save that file (within the project folder).
4. Download the mathplot.cpp file and store in the project folder. Download the mathplot.h file and store in the project folder.
5. Add both of those files to the project
Project→Add Files
6. The Projects Management will now look like the following:



7. Add the Date and Time to the Main.cpp OnInit() function. Modify the creation of the frame object (line 117) to be the following:

```
MyFrame *frame = new MyFrame(_T("Draw Sine Wave and Log " + wxDateTime::Now().Format("%c")),
```

8. Make sure the correct library is selected – libwxmsw31u.a
9. Build and run the application. Capture a screen output shot and turn in the printout.

All the documentation for MathPlot is included in the source header file.

This example is provided to give an example of how to plot waveform data using wxWidgets.

Once that is done, the output will look like this:

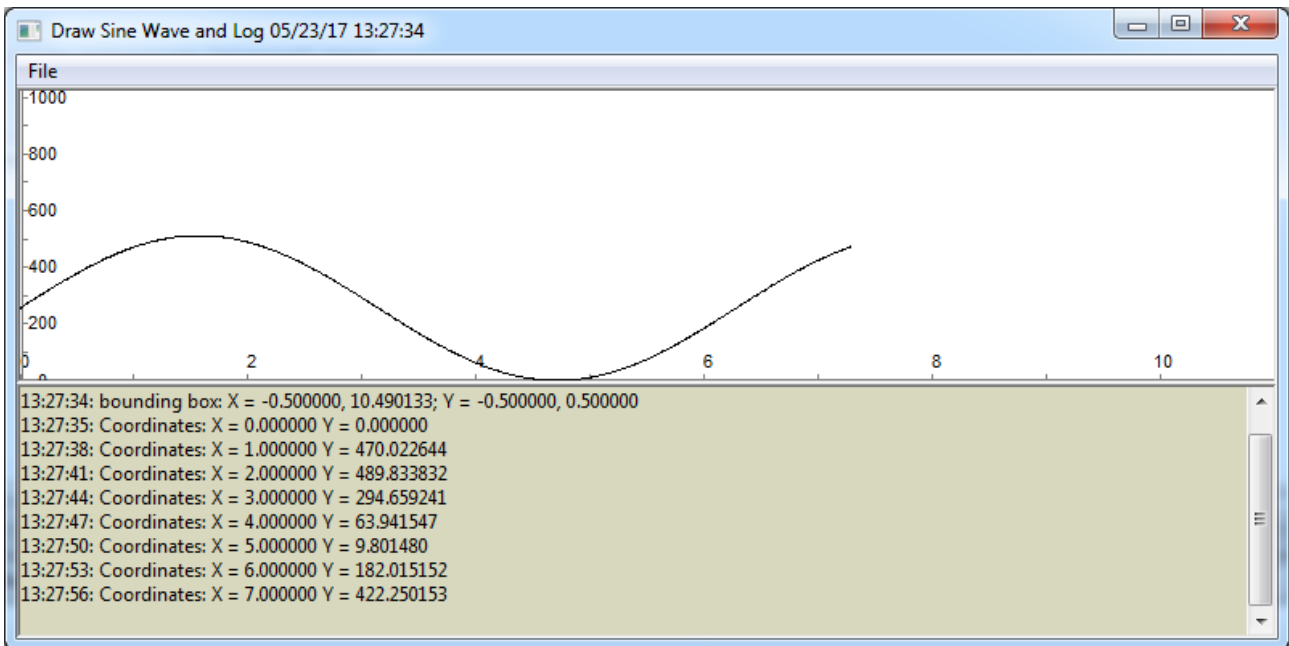


Illustration 1: Code::Blocks setup with wxMathPlot

Screen copy this output and turn in as homework.