Lab 2 ex1-3

Wednesday, 25 January 2017 09:46

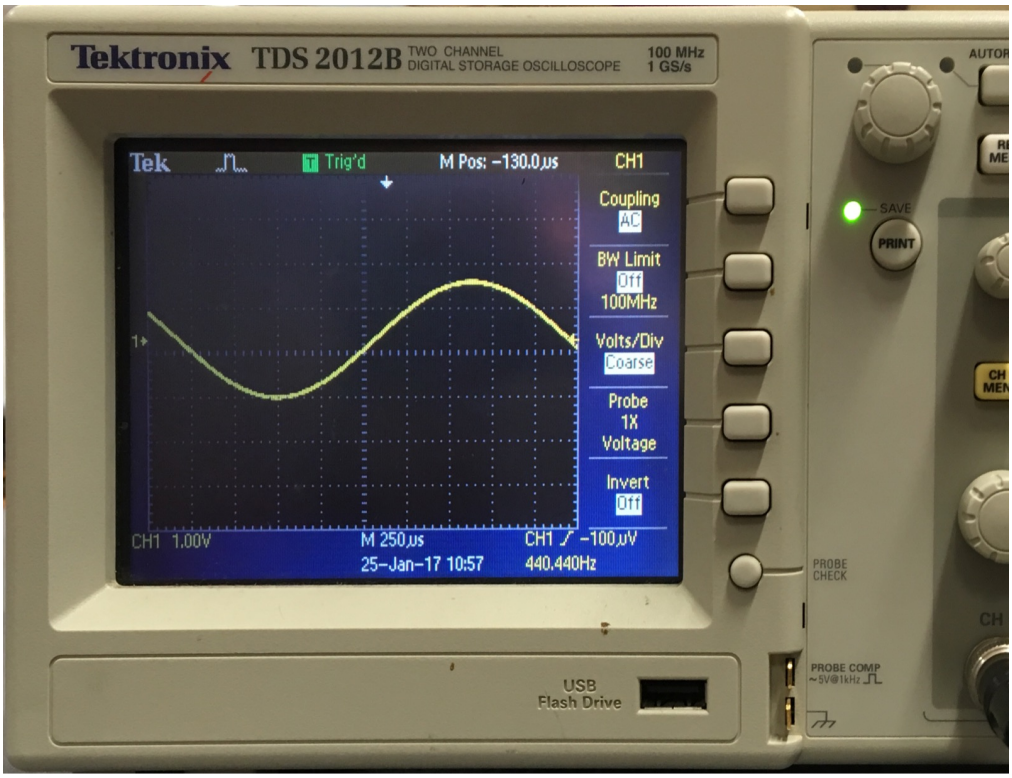
Following DE2 Lab notes.

Exercise 1

Device_name was found using the error message when the original 14x2 was used.

Available ports showed that the value of x was '1'.

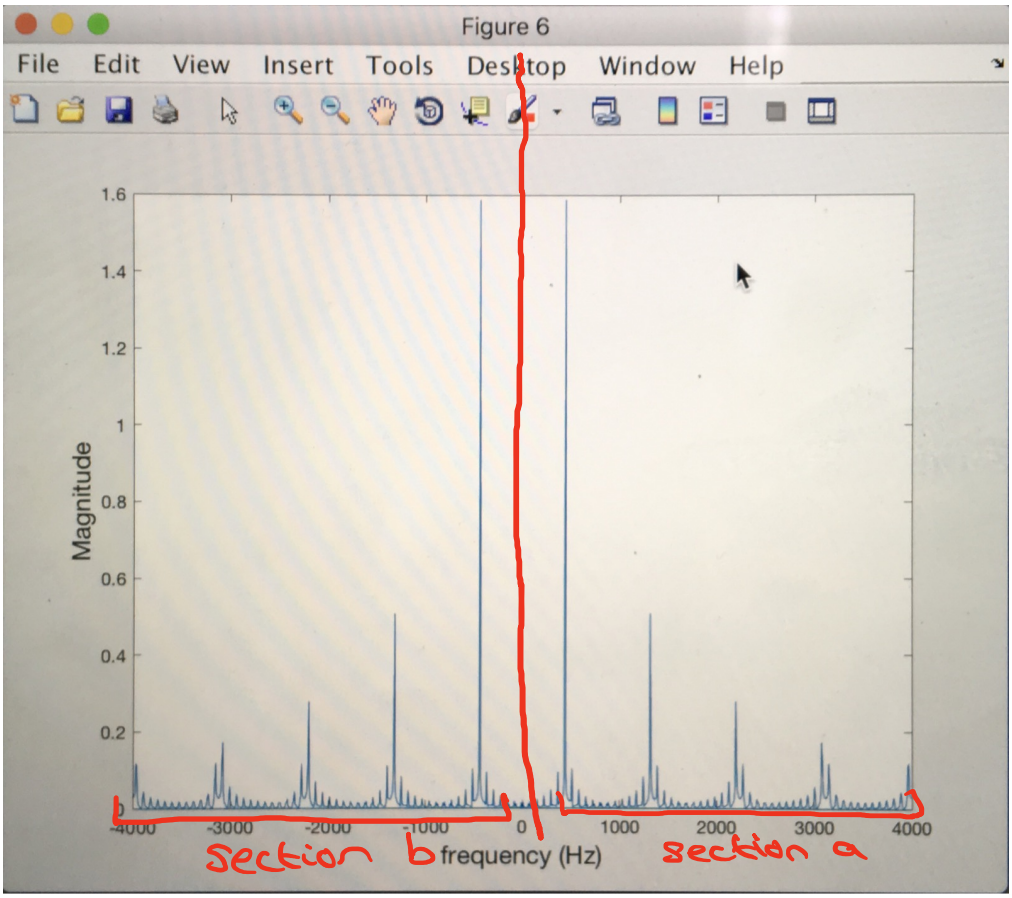
Sine wave was generated without issue using the **ex1.m** file.



We then added code from **plot_spectrum** from lab 1 to the lab 2 directory.

A sine, triangle and square wave are each generated and plotted. The spectrum is then computed and displayed.

When creating the **plot_fullspectrum** I have used a block that correctly rearranges the negative values.



The **fft** function usually places section b to the right of section a. This needs to be rearranged as seen in the MATLAB code of **plot_fullspectrum**.

Exercise 2

Removed the figure command of the plot spectrum for exercise. This is because it's important to define the figure for the **ex2.m** while loop overwriting figure.

Exercise 3

Reuse the code from **ex2.m** and modified line at the end to use **plot_spec_dB()** instead of the original plot spectrum function.

Duplicate code for exercise 3 and then modify with the code found in the lab notes.

The hamming window result can be seen in orange. It modifies the signal to be able to see specific frequencies clearer when measuring the amplitude in decibels.