# Task 4 – Qt Exercise Explanation

## Task:

Explain, providing a source snippet, how you would modify Qt Text Edit tutorial to load and display the files from task 1.

## Answer:

Completing the 5-step tutorial the only extension of the code that is required is the following:

Original Code:



Modified Code:



In the open() function the static function getOpenFileName() is used to get the path of the file the user selects. File filters are set to text (.txt file extensions), C++ (.cpp file extensions) and header files (.h file extensions) originally, but this is extended to include Data files (.dat file extensions).

# Task 5 – Qwt Exercise Explanation

## Task:

Explain, providing a source snippet, how you would modify Qwt simple plot example to plot the amplitude curve calculated in task 1. Note: the x-axis is sample number; y-axis is amplitude.

## Answer:

The points are set with the following code:



Where the QPointF() is used to set points on the graph and each is inputted into the QPolygonF() variable points.

Making use of the code used in task 1 to read and parse the data from a file, the output from task 1 is used as an input and each amplitude number in column 1 is stored in an array of doubles called amplitudes:



Finally the code originally used to plot points on the graph is replaced with the following:



This iterates through the amplitudes array inputting a QPointF for each amplitude number (y-axis) alongside the float cast of the current counter (x-axis) to the graph.

This produces the following output (with tweaked size-steps on the x-axis):

