Mercedes AMG Data Analysis Application

Information:

The application is a WPF app which uses .NET7, the application allows users to load in a datafile after which it will generate graphs based on the data within the file.

In instances where there are missing values the user has the ability to predict the values using interpolation or load the data in as is.

Application allows for custom channel creation, where a user can select two existing channels, and a numeric operator in order to make a new custom channel.

In instances where the user wants to create a custom channel from two channels that do not match e.g. time values don't align in data. The application will use interpolation to align the two datasets and return the new channel.

Users are also able to add markers to notify of a condition being met in the data. Users can select a channel, an operator and the threshold. This will show a marker for the first point which matches this condition, if it so happens that the condition is first matched on the line between two points a marker for this will also be displayed.

The application is configured to automatically create custom “Channel 7” and plot the markers which satisfy conditions Channel 2 < -0.5 and Channel 7 < 0. This is so that it can be clearly seen right away.

Instructions:

Opening Project:

The Application was developed in VisualStudio, simply open the .sln file in order to load in the project.

Running Project:

The “MercedesAMGDataAnalysis” is the WPF project and this is what should be built and run in Visual Studio.

Testing:

The unit testing has been done using XUnit. The tests should be runnable by clicking on “Test” and “Run All Tests” in the top bar of Visual Studio.