

# Exercises for imc FAMOS I – Digital Course

- Block 1 -

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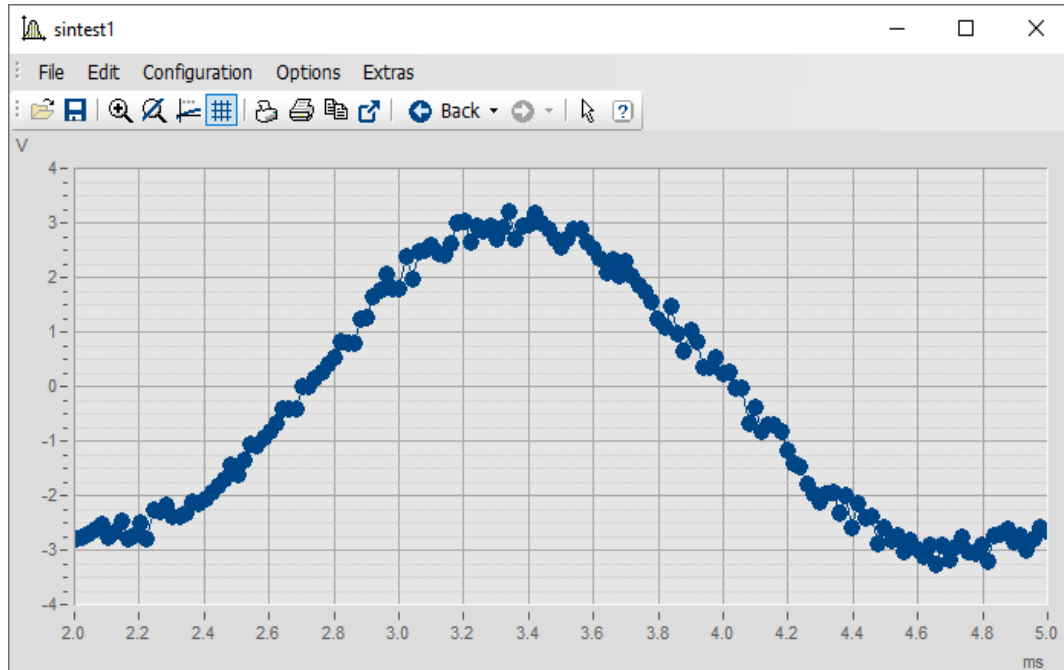
## Exercise A

### Exercise Objective:

A data set is to be displayed in a free-floating curve window. In addition, specific display options of the curve window are to be adjusted.

### Result:

The result of the exercise is expected to look like this:



### Exercise steps:

- Load the data set: **sintest1.dat** (data source: **sample files**) and show it in a free-floating curve window.
- To display the individual measured values, open the context menu for setting the line parameters and select the **Symbol** option to **Dots(large)**.
- The visible range should be between 2 ms and 5 ms in x-direction and between -4 V and 4 V in y-direction. The adjustments are to be made in the context menu for the axes parameters.
- The grid is to be shown. The tick spacing in the y-direction should be 1 V for the main grid and 0.25 V for the auxiliary grid. Adjust the number of ticks and the number of small ticks accordingly.

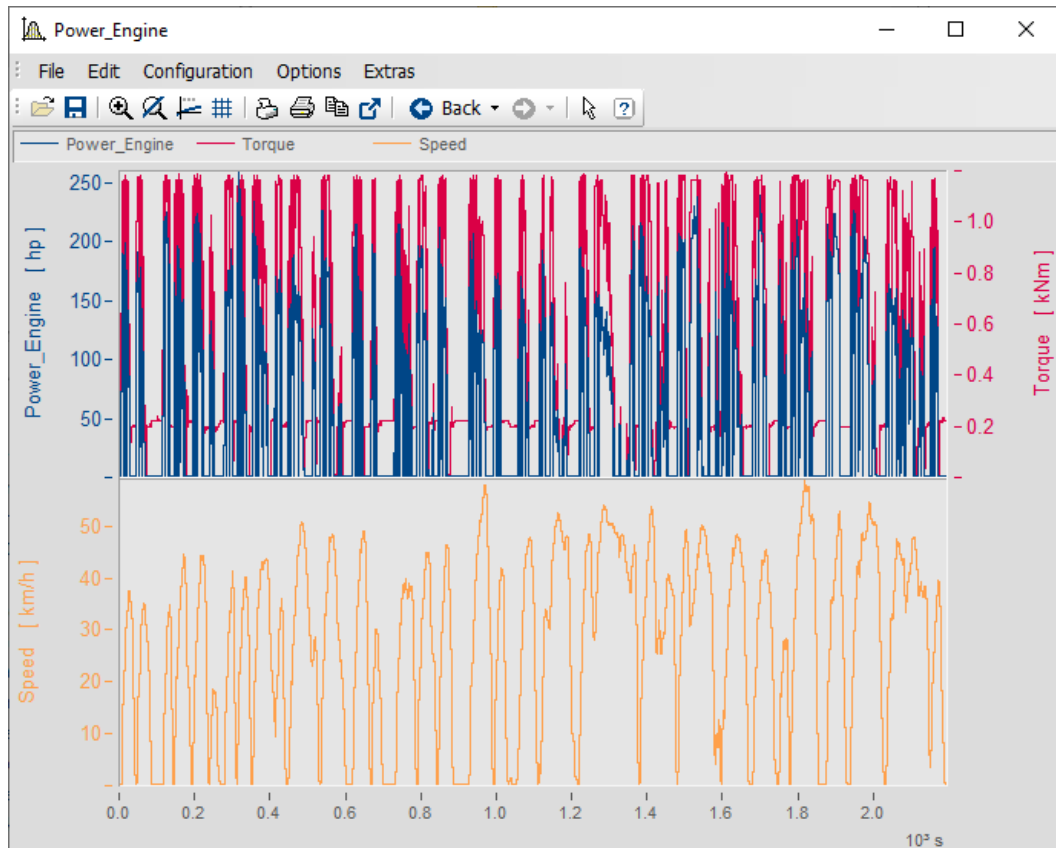
## Exercise B

### Exercise Objective:

Several data sets are to be displayed in a free-floating curve window with multiple axes and coordinate systems. In addition, specific display options of the curve window are to be adapted.

### Result:

The result of the exercise is expected to look like this:



### Exercise steps:

- Load the data set **bustrip.dat** from the sample data sets. This contains the channels **Power\_Engine**, **Torque** and **Speed**, which are available in the variable window after loading.
- The loaded channels are to be shown in a common free-floating curve window. Then open the **More Channels...** options for the curve window and adjust its structure as follows: The **Power\_Engine** and **Torque** channels are each on their own axis, but share the same coordinate system. The **Speed** channel is to be displayed below in its own coordinate system.
- Adjust the axis labels so they are composed of the channel names and their units.
- The color of the axes should correspond to the line colors of the channels depicted in them.

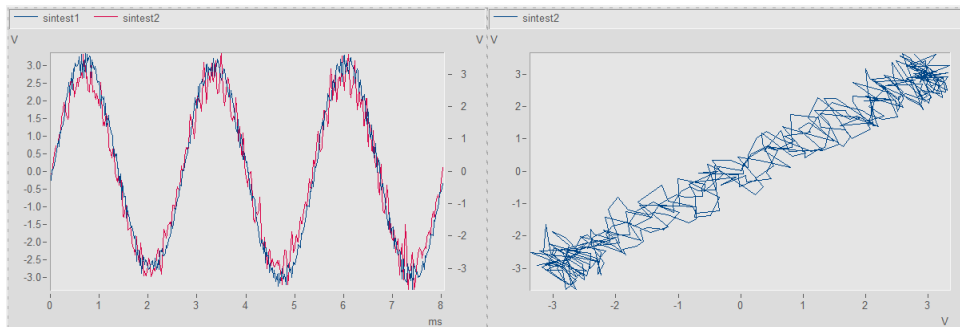
## Exercise C

### Exercise Objective:

Two data sets are to be displayed in such a way that the values of one data set are used as "time information" of the other data set. The curve windows are to be embedded in a panel.

### Result:

The left curve window shows the two data sets used with their respective time base, in the right curve window the first data set is used as "time base" for the second data set.

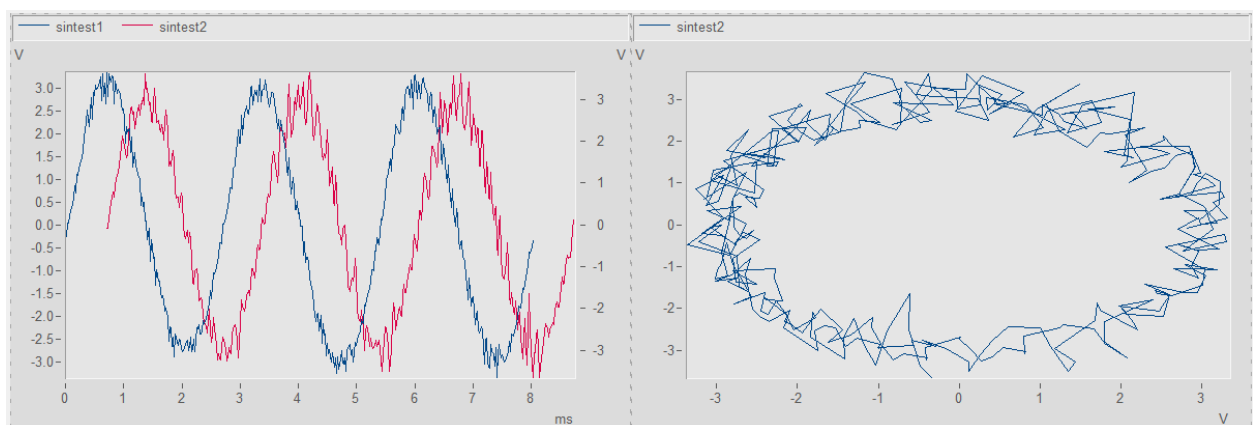


### Exercise steps:

- Load the two data sets **sintest1.dat** and **sintest2.dat** from the sample data sets.
- Create a new panel of type **Dialog** and place two curve windows on it next to each other. Both curve windows should contain both loaded data sets respectively.
- In the options of the second curve window, adjust the overlay of the channels to have the x-axis refer to the data set **sintest1** and the y-axis refer to **sintest2**.

### Additional task:

Establish a time shift of 0.7 ms between **sintest1** and **sintest2** to obtain a circular overlay:



### Exercise steps:

- Change the offset **x0** to 0.0007 in the variable list using the properties dialog.