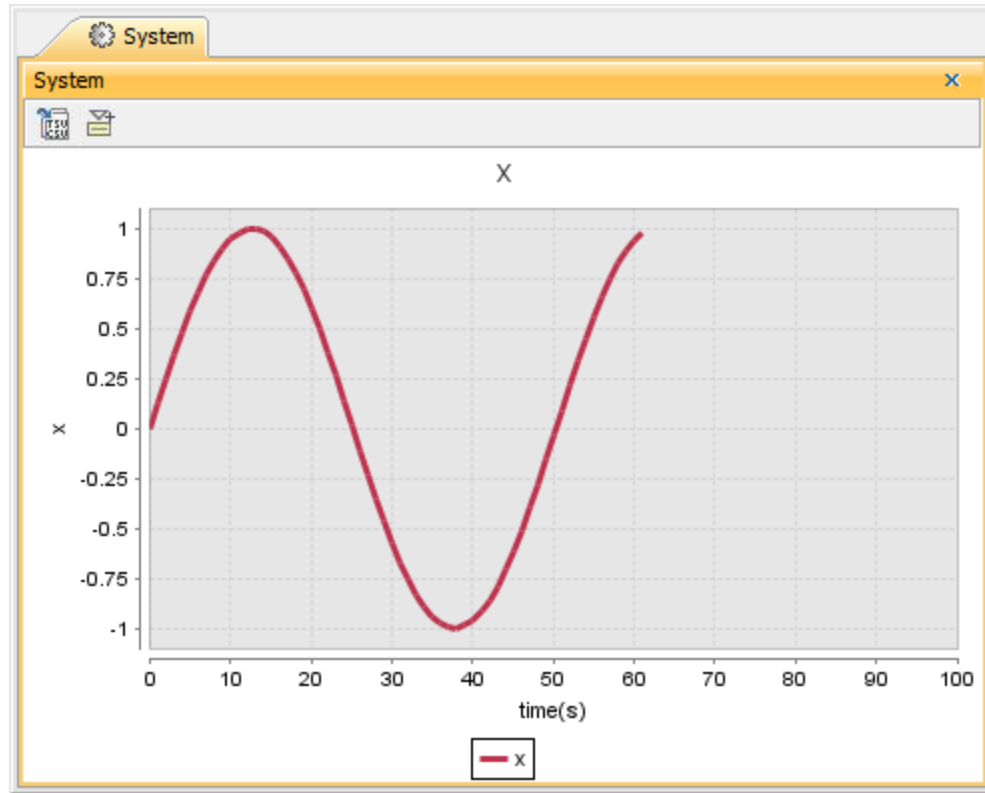# Specifying time axis' range in a Time series chart

You can specify the range of the time axis (horizontal axis) in a Time series chart by providing the values of **fixedTimeLength** and **fixedTimeLocation**. The fixedTimeLength and fixedTimeLocation units are specified by **timeUnit** when a model-based clock is used (For more information about model-based clock, see Model-based Clock). Otherwise, the unit for value is the millisecond.

You can use the **fixedTimeLength** property to specify the range of the time axis. If you do not define the value of **fixedTimeLength**, the time axis will expand as long as the maximum duration a simulation will run. The following figure shows a Time series chart when the **fixedTimeLength** value is 100 seconds

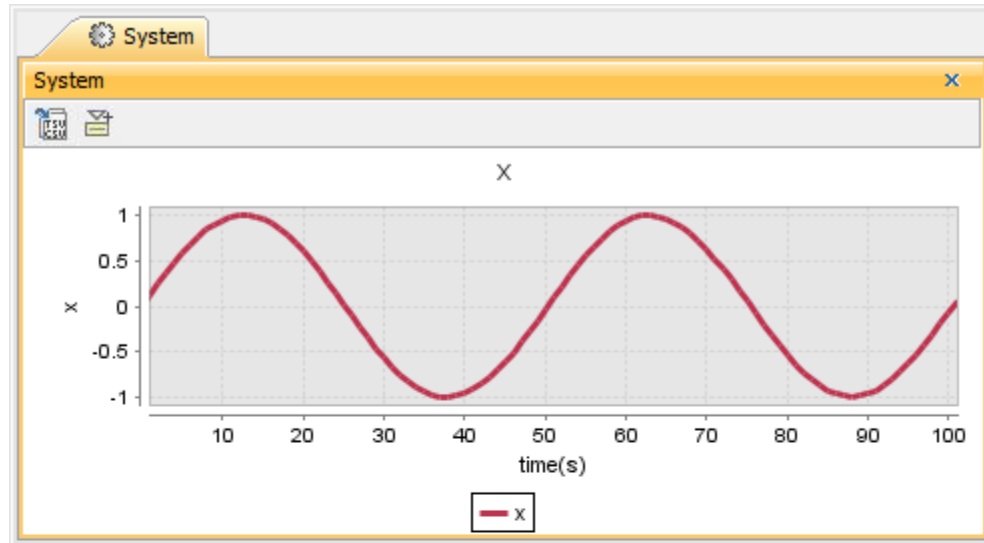A Time series chart when the **fixedTimeLength** value is 100 seconds.

You can also change the minimum value of the time axis in a Time series chart by specifying the value for **fixedTimeLocation**. The following figure shows a Time series chart when the **fixedTimeLength** value is 100 seconds, and the **fixedTimeLocation** value is 50 seconds
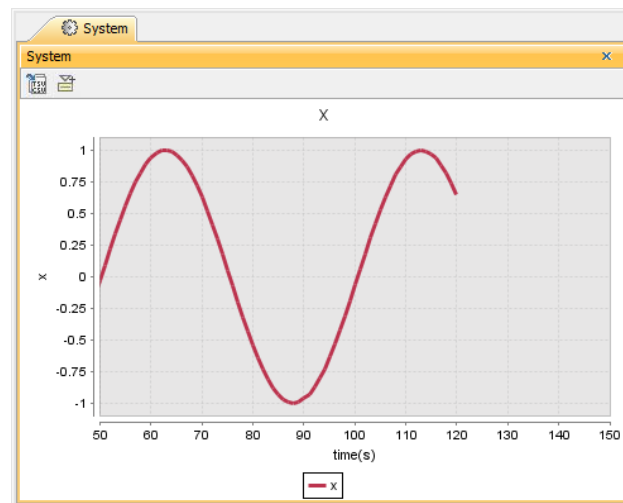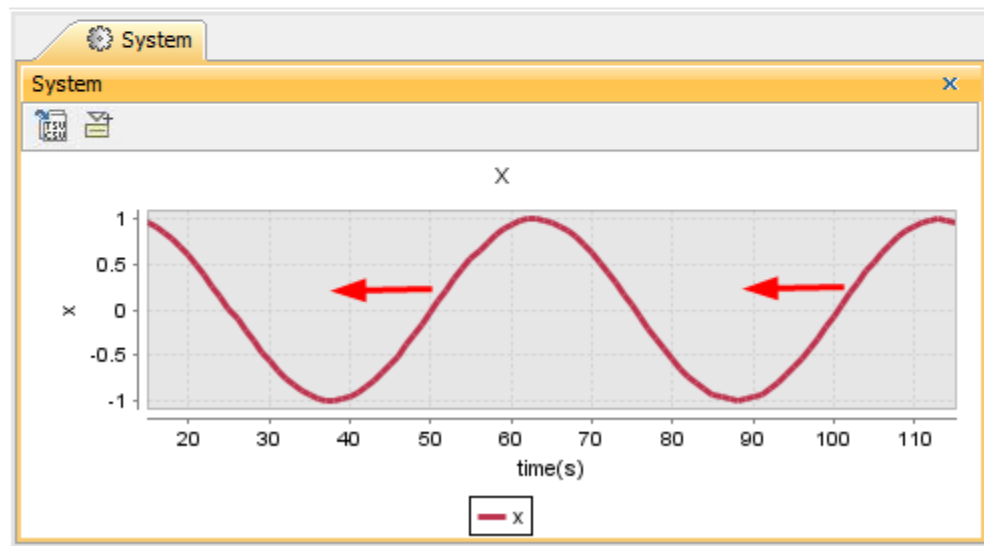

A Time series chart when the fixedTimeLength value is 100 seconds, and the fixedTimeLocation value is 50 seconds.

If the value you define only that of the **fixedTimeLength** value, the minimum value of the time axis will change automatically to adjust to the total length of time that you have defined as the value of **fixedTimeLength**. This situation will occur when the simulation time is greater than **fixedTimeLength**. If this happens, the maximum time axis value will be the actual simulation time and the minimum time axis value will increase to preserve the current value of **fixe dTimeLength**.

If **fixedTimeLength** is 100 seconds, the range of the time axis will be [0, 100] (If you do not specify **fixedTimeLocation**, the minimum time axis value will be 0). However, if your simulation model runs longer than the simulation time or more than 100 seconds, e.g., 115 seconds, the range of the time axis will be [15, 115]. This particular Behavior of Magic Model Analyst's Time series chart is similar to that of Oscilloscope when **fixedTimeLocation** is unspecified.

A Time series chart with fixedTimeLength 100 seconds and fixedTimeLocation unspecified running longer than the simulation time.