Simulation time and simulation clock

When you simulate a model related to time (such as a transition with a time trigger), Cameo Simulation Toolkit will obtain the simulation time from a simulation clock. The simulation time is the amount of time spent simulating a model. Cameo Simulation Toolkit also uses the simulation time in the timestamp of a signal instance in a SimulationLog (see Simulation log), in a time series chart (see Time Series Chart), and on messages of a generated Sequence diagram.

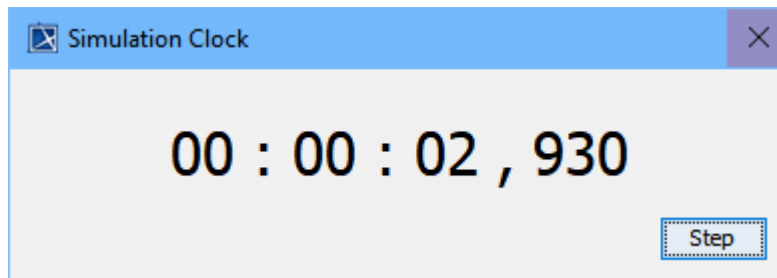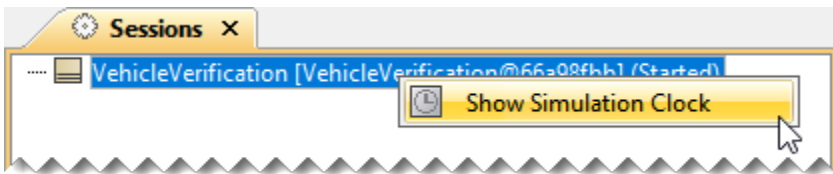There are three types of simulation clocks in Cameo Simulation Toolkit:

- Built-in clock. This is the default simulation clock.
- Internal simulation clock. This clock is designed to precisely control the simulation time. Its implementation is based on UML run-to-completion semantics and internal completion events.
- Model-based clock. You can select the model-based clock by making a property as the time value tag definition of a Simulation Config. See Model -based Clock for further details on the model-based clock.

> ⚠ **Note**
> Nanosecond and microsecond are only supported in the internal simulation clock and model-based clock.

To open the Simulation Clock

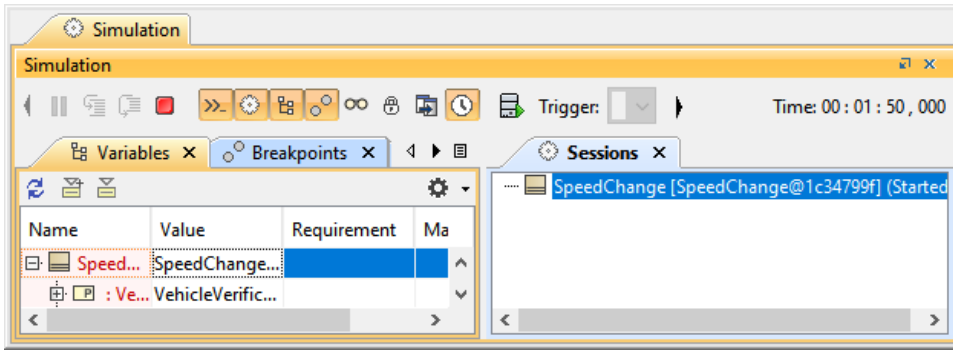- Right-click a session in the **Simulation Sessions** pane and select **Show Simulation Clock**.

The Simulation Clock dialog with the Step button.

> ⚠ **Note**
> The **Step** button in the **Simulation Clock** dialog is available only for the internal simulation clock to allow manually increasing and ticking the internal simulation clock.

To show or hide the Simulation Time

- Click in the toolbar of the **Simulation** window.

By default, the Simulation time is always displayed.

Related pages

- Built-in clock
- Internal simulation clock
- Model-based clock
- Understanding simulation sessions