

Timer (Tab)

General Timer Functionalities

The LCC can be used to start / stop the execution of all applications that use the cpm timer (see [synchronization](#)) centrally. This functionality is available both in the real-time and in the simulated time case.

Manual ControlParametersTimerLogs

Currently active timers

ID	Last message	Participant status	Next timestep
controller_test_loop	1s	READY	1000000000
vehicle_raspberry_1	1s	READY	0

Timing information of active participants

Start the execution on all systems

Stop the execution on all systems

Current time step:0

Start

Stop

Restart system

The timer UI shows all participants that use the timer and whose ReadySignal messages have been received by the LCC. The participant's ID, the time passed since its last message was received, its current status and (in simulated time) its next active time step are shown in the UI.

Participant Status

READY	The participant sent its first ReadySignal and is now ready to receive a start signal
(realtime)	(real time) After pressing start, there are no additional information available about the participants
WAITING	(simulated time) The participant is waiting for the start of its next registered period
WORKING	(simulated time) The participant received a SystemTrigger that matches its next registered period and has not yet sent a ReadySignal that indicates that its work has been finished
OUT OF SYNC	(simulated time) The participant's next period request is lower than the current simulated time / invalid

Simulated Time

In the simulated time case, the columns Participant status and Next timestep can be a useful tool for debugging and monitoring purposes. The latter indicates at which simulated point in time the participant is woken up again to perform its periodic task.

Current time step below the table indicates the current simulated time.

The timing itself is managed by the LCC itself internally. It manages the received ReadySignals of all participants and progresses to the next smallest timestep whenever all participants of the current timestep have signaled that they have finished their current computation. For more information, have a look at the [page about synchronization](#).