Event

An event is the specification of some occurrence that may potentially trigger effects by an object, that is, an event shows what should happen to change a particular state in a system. There are the following event types:
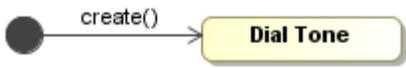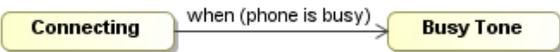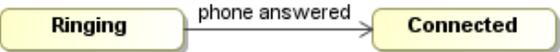
- Any Receive Event
- Call Event
- Change Event
- Signal Event
- Time Event

Events are important in diagrams which represent a behavior of a system. These diagrams are listed in the following table.

Diagram name	Event usage description
Activity diagram	To specify an event type for the Accept Event Action.
State Machine diagram	To specify a event type for the transition, or transition to self.
Protocol State Machine diagram	To specify an event type for the protocol transition, or protocol transition to self.

When specifying an event type for a transition, you can type the command straight on the transition path on the diagram pane. The same assignment is valid for a transition to self, protocol transition, and protocol transition to self.

Event types, their functions, samples, and command syntax are described in the following table.
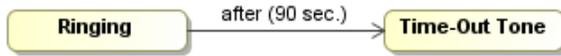
Name	Function and Sample	Command syntax
Any Receive Event	A trigger for an AnyReceiveEvent is triggered by the receipt of any message that is not explicitly handled by any related trigger.	*all*
Call Event	A call event specifies the receipt by an object of a message invoking a call of an operation: create() → Dial Tone In this example, the call event type is specified with the *create()* operation.	*<operation ()>*
Change Event	A change event specifies a change in the system configuration that makes a condition true: Connecting → when (phone is busy) → Busy Tone In this example, the change event type is specified, and its Change expression property is specified as *phone is busy*.	*when (<expression>)*
Signal Event	A signal event represents the receipt of an asynchronous signal instance. A signal event may, for example, cause a state machine to trigger a transition: Ringing → phone answered → Connected In this example, the signal event type is specified, and its Signal property is specified as *phone answered*.	*<signal name>*

Time Event	A time event specifies a point in time. At the specified time, the event occurs. There are two possible types of event occurrences: at the relative time and at the absolute time:	• *after (<time>)* - an event occurrence at the relative time
	Ringing → after (90 sec.) → Time-Out Tone	• *at (<time>)* - an event occurrence at the absolute time
	In this example, the relative time event is specified, and its When property is specified as *90 sec*.	
	For more information, see Specifying a time for a time event.	