

Sequence diagram

UML Sequence Diagrams are interaction diagrams that detail how operations are carried out. They capture the interaction between objects in the context of a collaboration. Sequence Diagrams are time focus and they show the order of the interaction visually by using the vertical axis of the diagram to represent time what messages are sent and when.

Purpose of Sequence Diagram

- Model high-level interaction between active objects in a system
- Model the interaction between object instances within a collaboration that realizes a use case
- Model the interaction between objects within a collaboration that realizes an operation

Sequence Diagrams show elements as they interact over time and they are organized according to object (horizontally) and time (vertically):

- The horizontal axis shows the elements that are involved in the interaction
- The vertical axis represents time proceedings (or progressing) down the page.

Notation

Actor

- a type of role played by an entity that interacts with the subject (e.g., by exchanging signals and data)

Lifeline

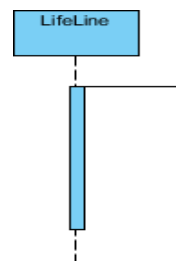
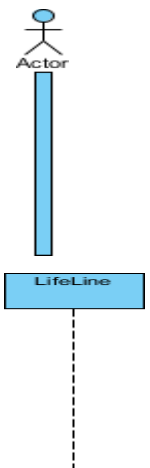
- A lifeline represents an individual participant in the Interaction.

Activations

- A thin rectangle on a lifeline) represents the period during which an element is performing an operation.
- The top and the bottom of the of the rectangle are aligned with the initiation and the completion time respectively

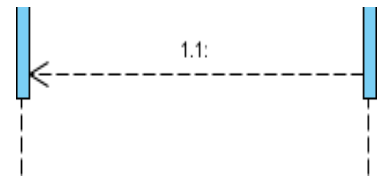
Call Message

- Call message is a kind of message that represents an invocation of operation of target lifeline.



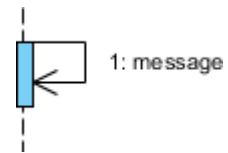
Return Message

- Return message is a kind of message that represents the pass of information back to the caller of a corresponded former message.



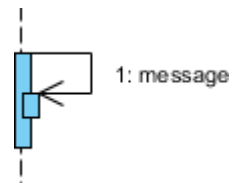
Self Message

- Self message is a kind of message that represents the invocation of message of the same lifeline.



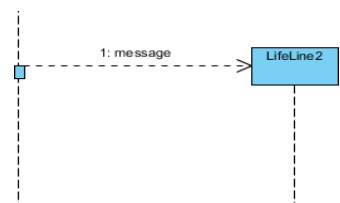
Recursive Message

- Recursive message is a kind of message that represents the invocation of message of the same lifeline.



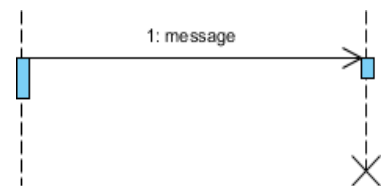
Create Message

- Create message is a kind of message that represents the instantiation of (target) lifeline.



Destroy Message

- Destroy message is a kind of message that represents the request of destroying the lifecycle of target lifeline.



Duration Message

- Duration message shows the distance between two time instants for a message invocation.

