

Change Title: Changed Sequence Diagram – Added Message

Change Code: CSDVAM

Changed Element: model::behaviouralElements::collaborations::
SequenceDiagramView

Added Property: model::behaviouralElements::collaborations::Message

Impacted Elements: model::foundation::core::ClassClassifier
model::foundation::core::Operation
model::foundation::core::Postcondition

Description: The base class of the classifier role that sends the added message is impacted. The operation that sends the added message is impacted and its postcondition is also impacted.

Rationale: The sending/source class now sends a new message and one of its operations, actually sending the added message, is impacted. This operation is known or not, depending on whether the message triggering the added message corresponds to an invoked operation. If, for example, it is a signal then we may not know the operation, just by looking at the sequence diagram. The impacted postcondition may now not represent the effect (what is true on completion) of its operation.

Resulting Changes: The implementation of the base class may have to be modified. The method of the impacted operation may have to be modified. The impacted postcondition should be checked to ensure that it is still valid.

Invoked Rule: Changed Class Operation – Changed Postcondition (CCOCPst)

OCL Expressions:

context modelChanges::Change **def:**

```
let addedMessage:Message = self.changedElement.oclAsType(SequenceDiagramView).  
    Message->select(m:Message | m.getIDStr()==self.propertyID)  
let sendingOperation:Operation = (  
    if addedMessage.activator.action.oclIsTypeOf(CallAction) then  
        addedMessage.sender.base.operation->select(o:Operation |  
            o.equals(addedMessage.activator.callAction.operation))  
    else  
        null  
    endif)
```

context modelChanges::Change – class
addedMessage.sender.base

context modelChanges::Change – operation
sendingOperation

context modelChanges::Change – postcondition
sendingOperation.postcondition