

Annotations

**• Possible Object/Link Existence Classification**

» new

—the instance or link is created during the enclosing interaction

» destroyed

—the instance or link is destroyed prior to the completion of the enclosing interaction

» transient

—the instance or link is created during execution but is destroyed before completion of the enclosing interaction

Specifying Behaviour

**•Message Guards**

» [ pressure > 9 ]: playAlarm()

» the message is sent only if the condition evaluates to true

» are deprecated for sequence diagrams; use “opt” or “alt” notation instead

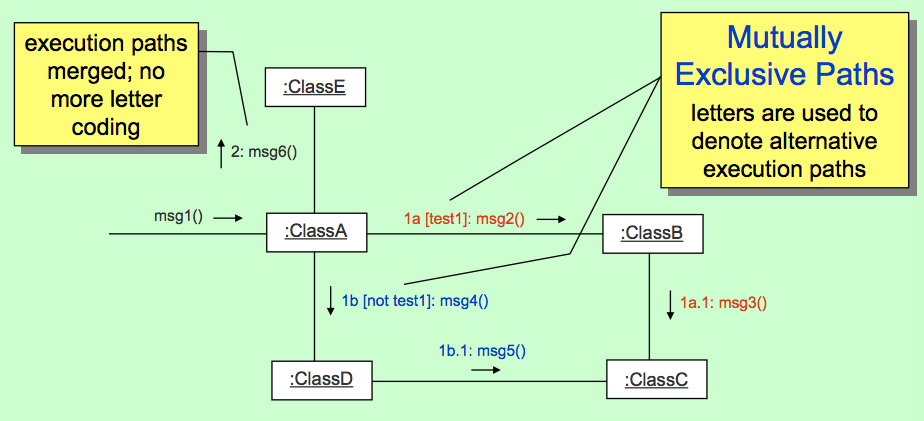
**•Iteration**

» \* [ i := 1..n ]: knockAtDoor() /

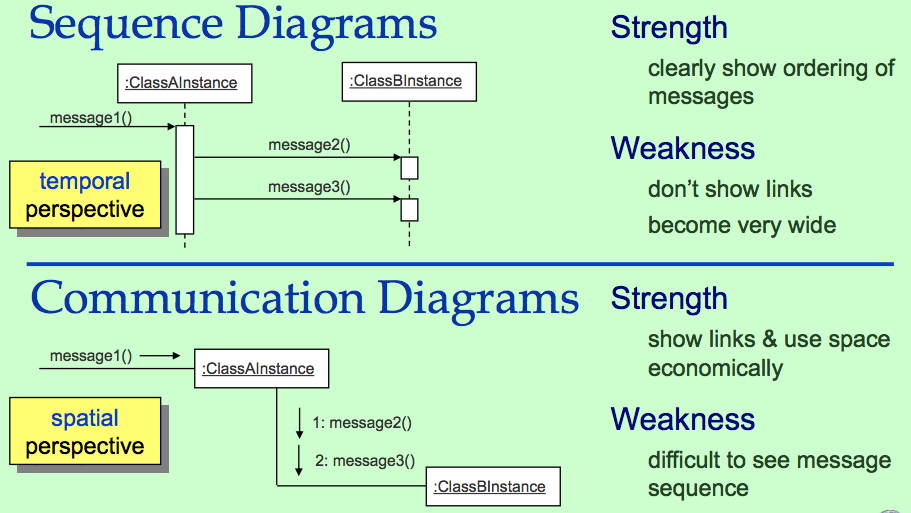
» conditions such as \* [ x<10 ] or \* [ isNotEmpty ] are possible as well

Conditional Paths

**•** **Extension of Hierarchical Notation**



Sequence vs Communication

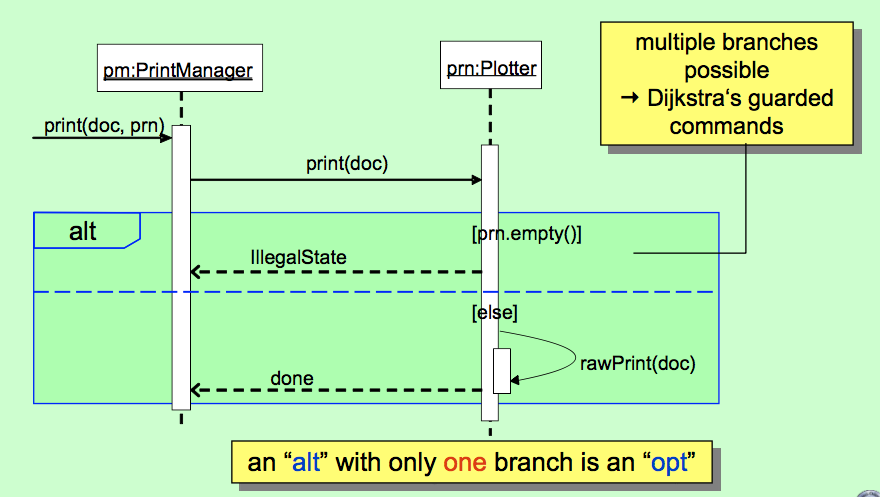


•As of UML 2.0, Sequence Diagrams have a lot more expressive notation than Communication Diagrams

» alternatives, loops » decomposition mechanisms

•With respect to their common basis, both diagram kinds can be translated into each other

Conditional



Iteration

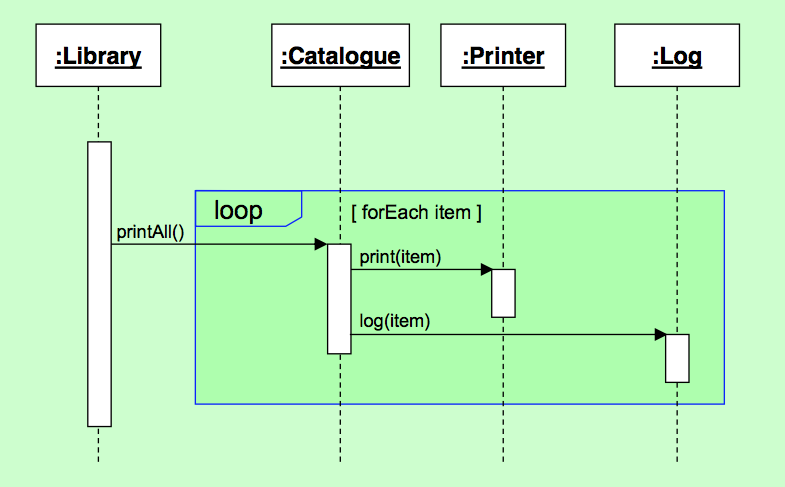
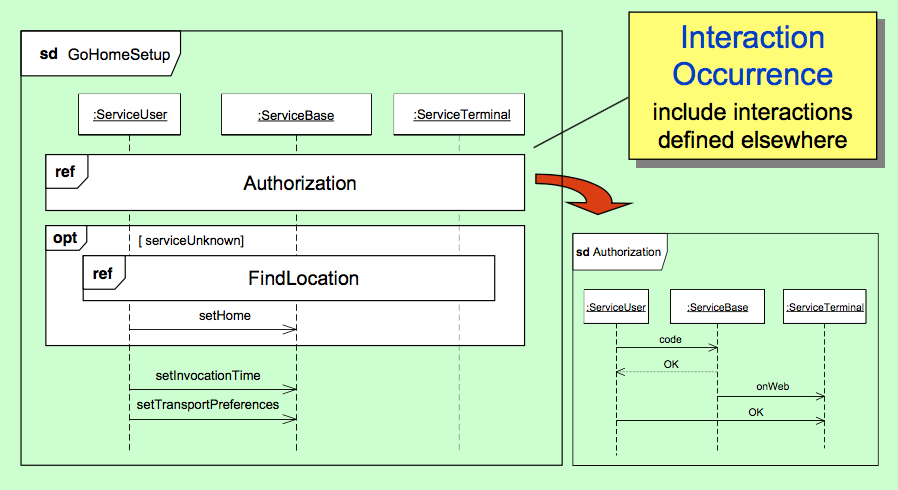
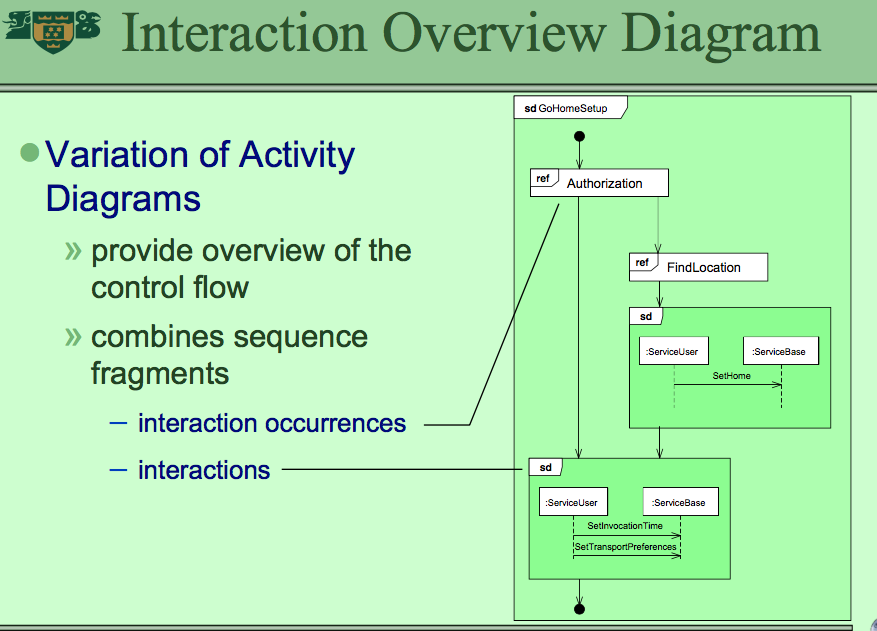


Diagram Decomposition





Interaction Diagrams

Applicability

• during analysis, to improve individual or group understanding of inter-object behaviour

» are all communication paths required available?

» can complete message sequences be constructed?

» documentation for CRC scenarios

• during design, to precisely (but typically partially) describe inter-object/process communication

• during testing, the traces can be compared with those described in the earlier phases