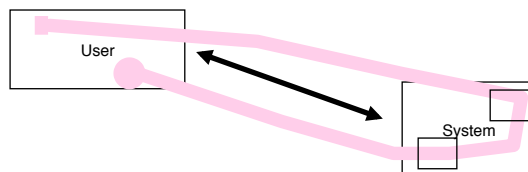
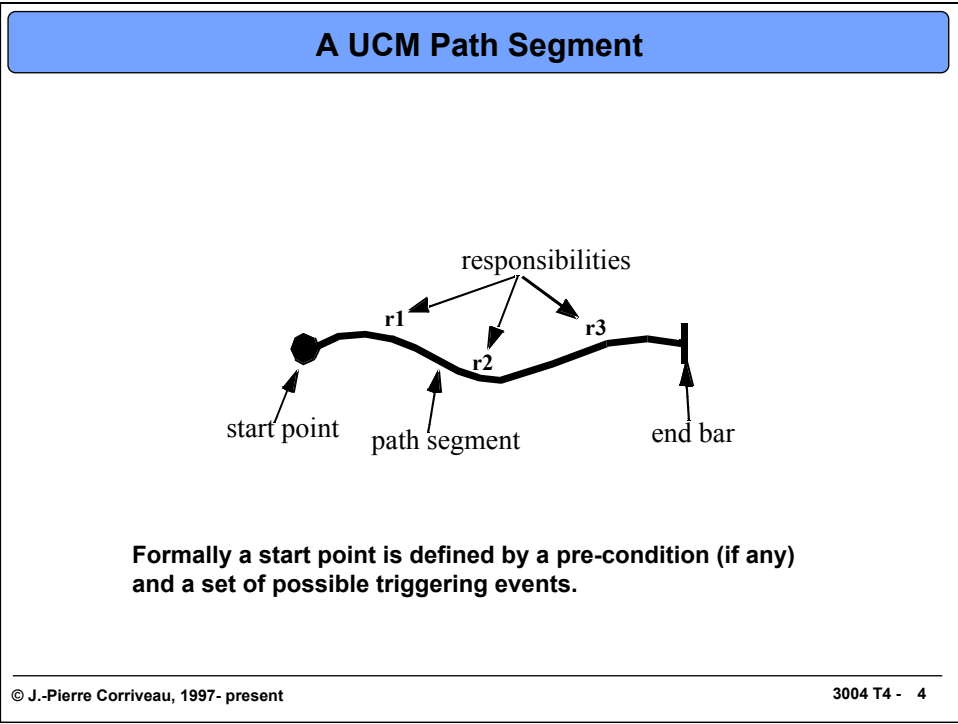
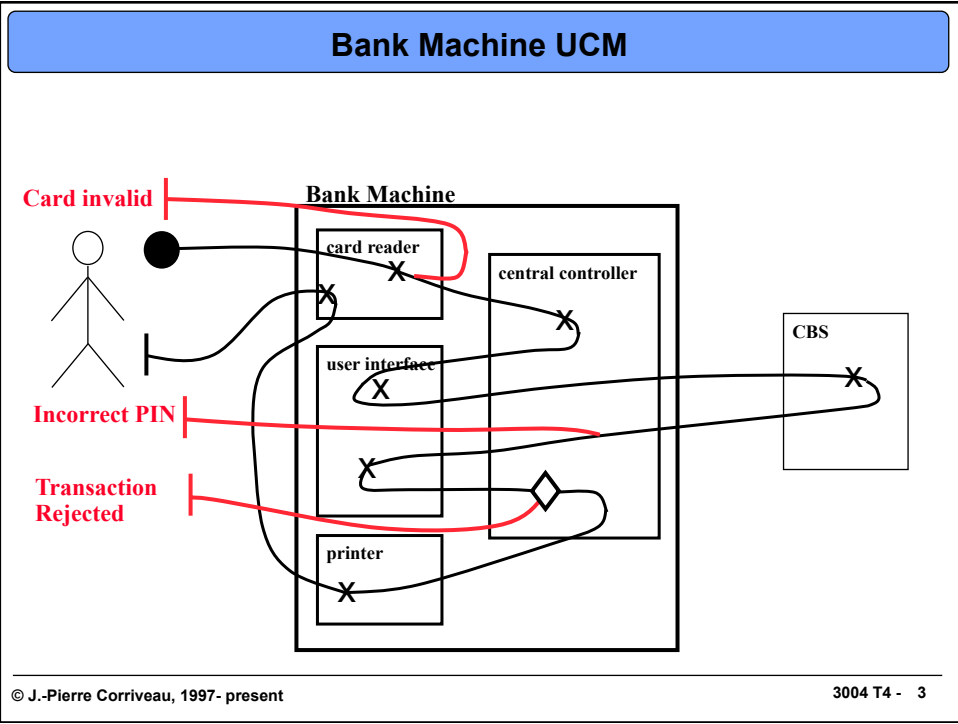


Use Case Maps (URN-FR)

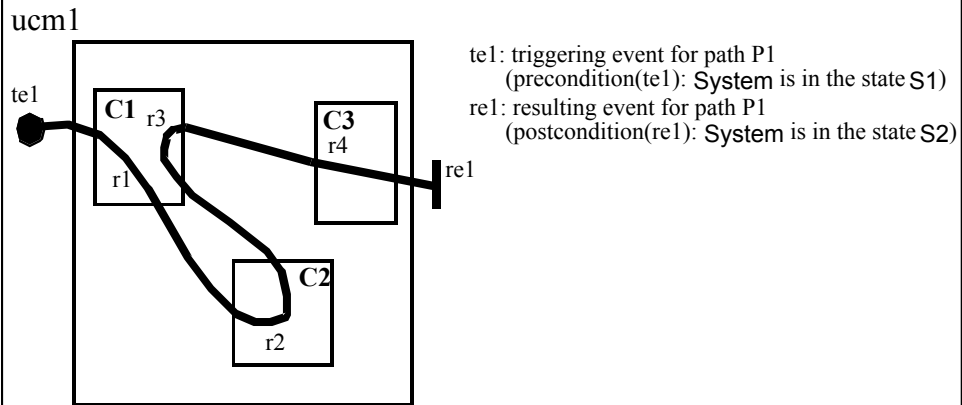
Use-Case Maps

“Use-case maps trace the global dynamic flow of causality through the components of the system, that result from each use case.” (Buhr and Casselman, 1996)





An Example

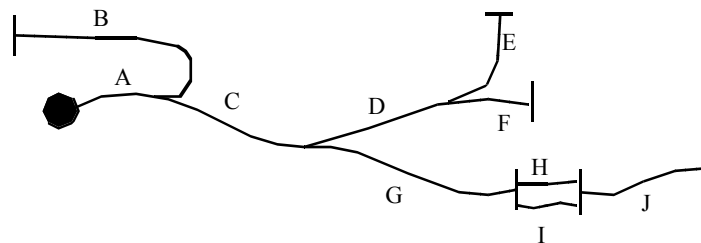


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Superimposition of Scenarios

There can be several concurrent terminating paths in a UCM.

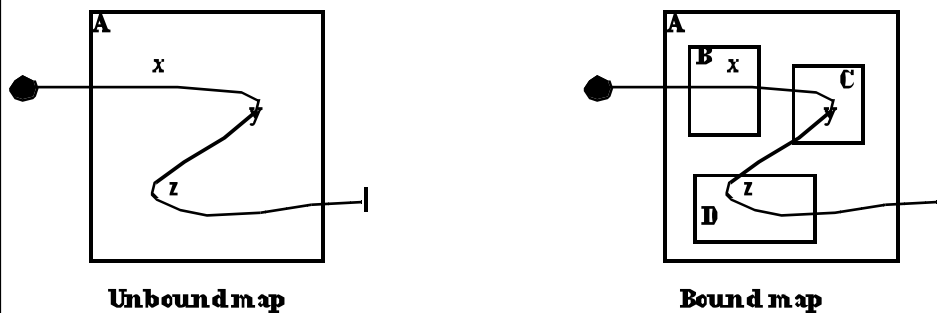


Each use case is to have a semantically equivalent UCM.

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Showing Structure



A UCM proceeds from a use-case and abstracts away from specific messages between objects, focusing instead on responsibilities.

The Bottom Line

- UCMs are typically useful for obtaining and/or verifying the **responsibilities** of objects:
 - expressing use-cases as paths of responsibilities helps tremendously in enforcing traceability between requirements and the more detailed sequence diagrams:
 - » UC -> UCMs -> MSCs
 - knowing which responsibilities of an object participate in which scenarios helps with concurrency analysis, scheduling, and regression testing.
 - a UCM documents the relationships between different path segments. So inter-scenario relationships should be captured in the UCM associated with each use case.
 - the information of the use case diagram must not be forgotten! It gives the overall map for inter-UC processing.
- A public domain tool exists for UCM drawing:
 - www.usecasemaps.org