Existence Dependency:
The Key to Semantic Integrity
between Structural and Behavioral
Aspects of Object Types
Snoeck and Dedene
IEEE Trans on Soft Eng
April 98

Library Object Model

State for Copy

State Diagram for Loan

State for Member

TTYP1

- Draw a state diagram for library
  - Remember to include events from all the children
Draw a sequence diagram for borrow

C++ code for borrow

Question 1

Does every event in the library’s class’ fsms correspond to a function or set of code in the corresponding class? Explain why it does or when it does not.

Does it have to be a function in at least one of the parents?

Question 2

If a class has two parents, then perhaps there must be a "chain" of pointers from one parent to another. Is this true? Counterexamples?

Question 3

Are there really two types (or more) of parents - e.g. active parents and passive parents?
Next Reading

- “A Controlled Experiment for Evaluating Quality Guidelines on the Maintainability of Object-Oriented Designs”
- Briand, Bunse, and Daly, IEEE TOSE June 2001 pp513-530