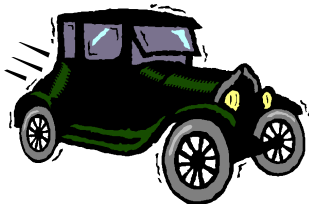
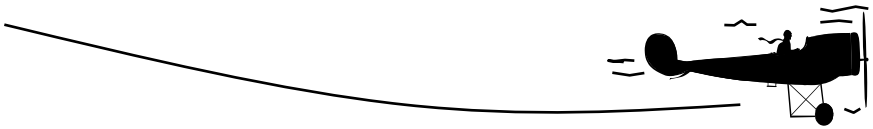


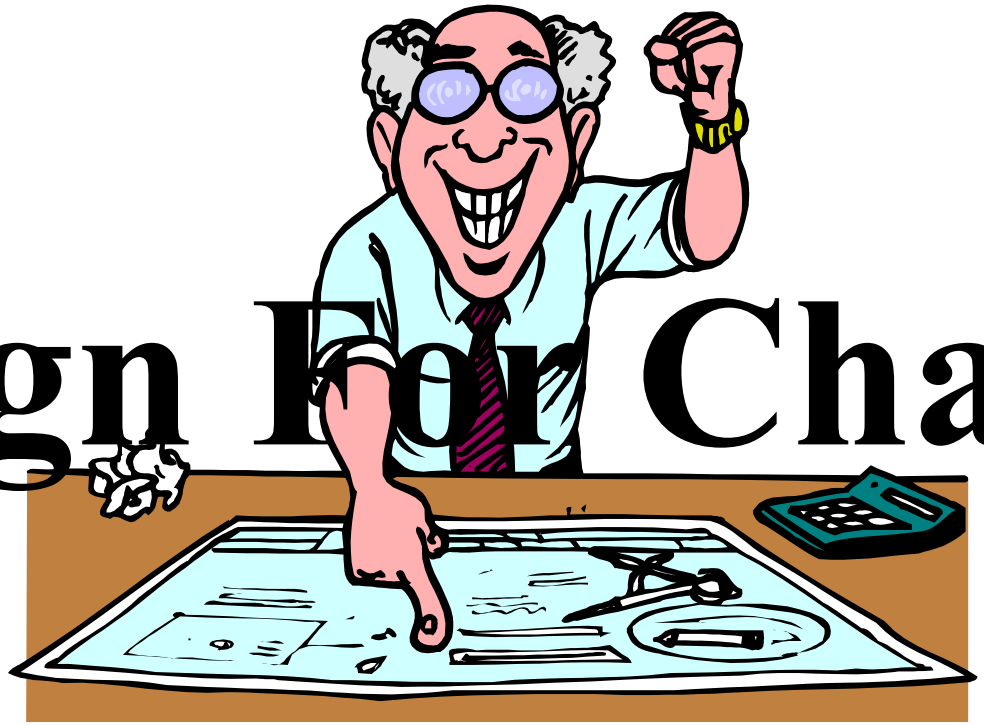


Conception Avancée de Base de Données

Design For Changes

Traduction en cours

Why we want It !!



Design For Changes

Changes Request : flexible solution

Initial Request

1 Day After

1 Week After

Changes Request : flexible solution

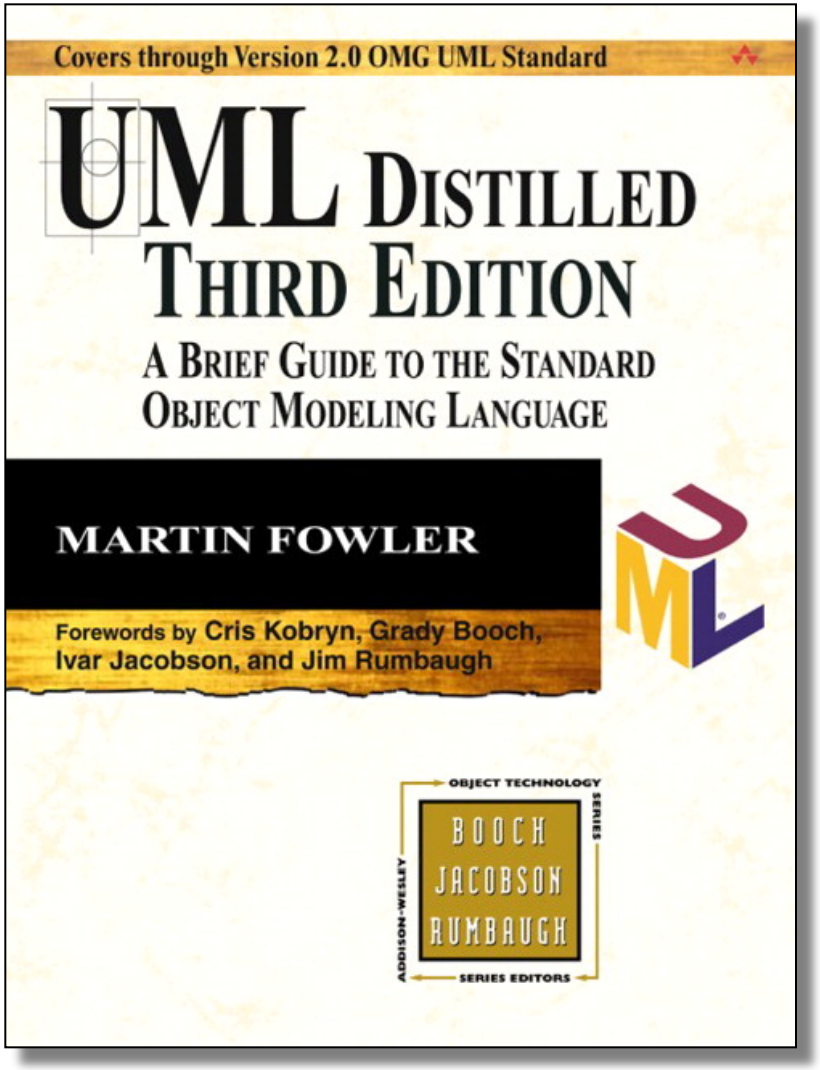
Changes Request : flexible solution

Changes Sources During Development

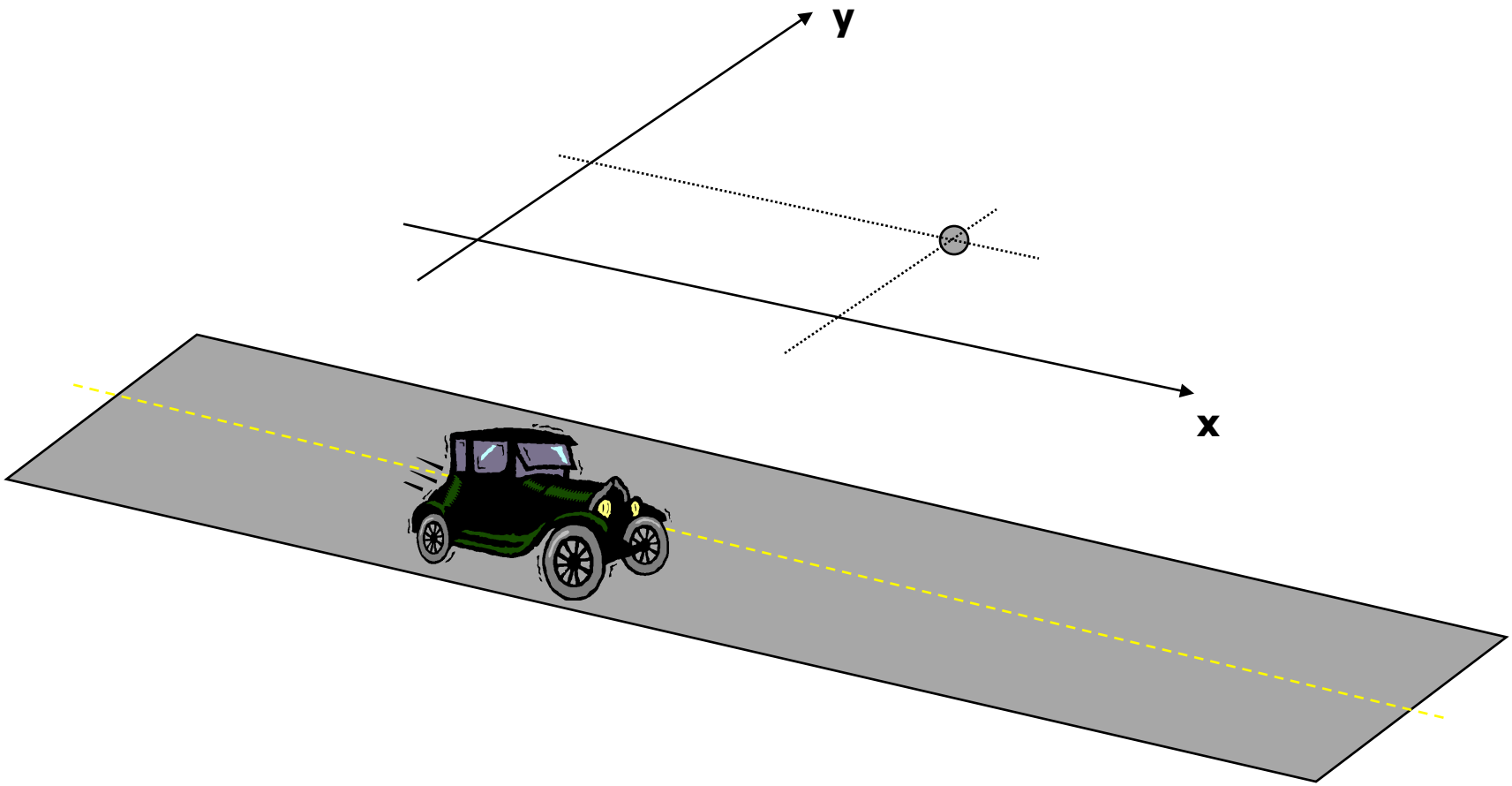
- Requirements :
  - Customers Discover What they Really Want During or at the End of Developments
- Technology
  - Performances Are Increasing With Time
- Skill
  - We Learn and Understand the Problem and We Discover the Right Solution on the Job
- Short Term Politic
  - No Comments

M. FOWLER

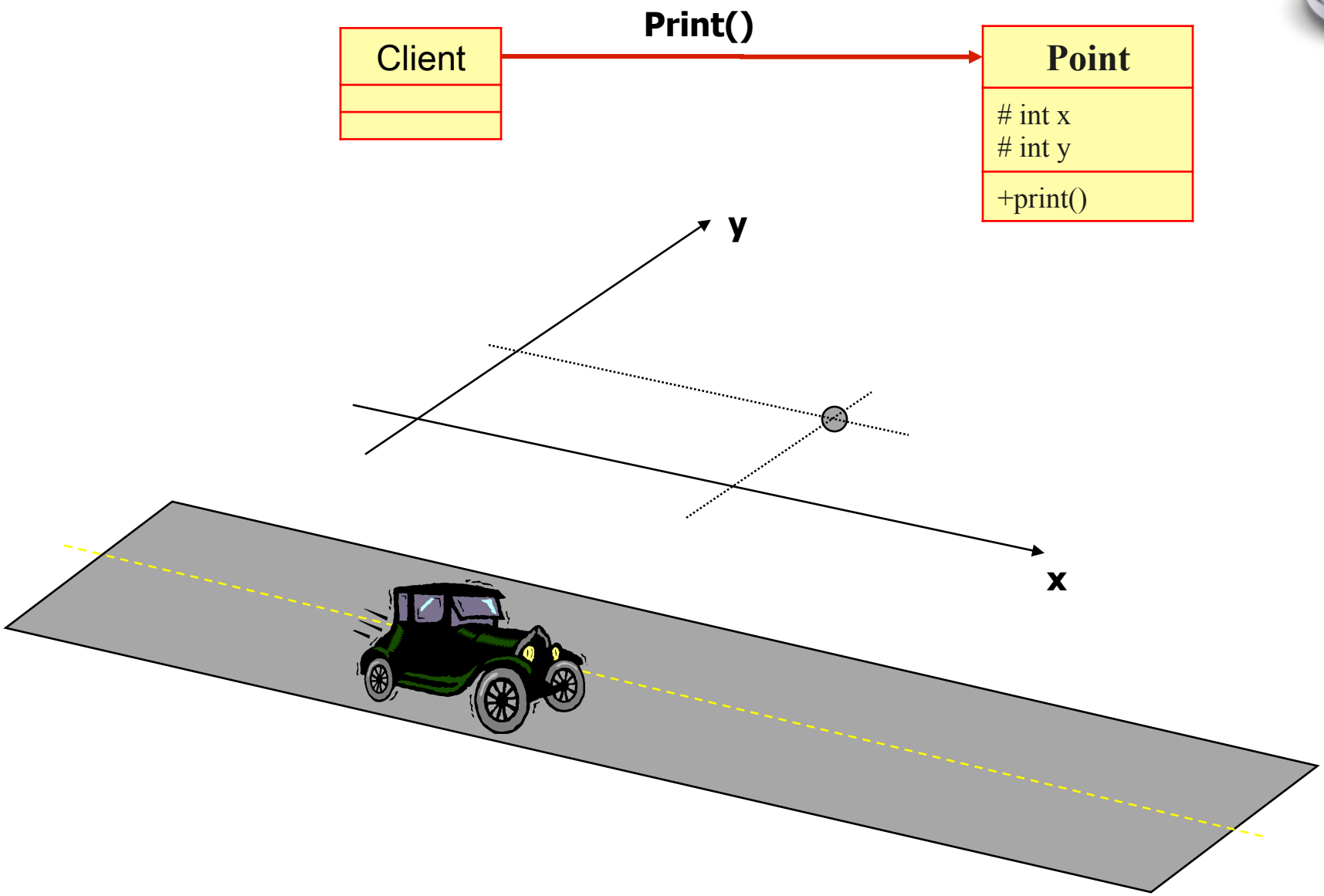
Martin Fowler



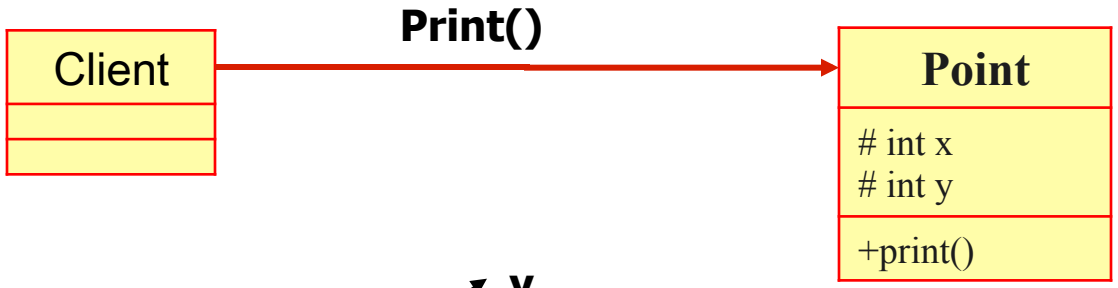
Programming in “present” tense

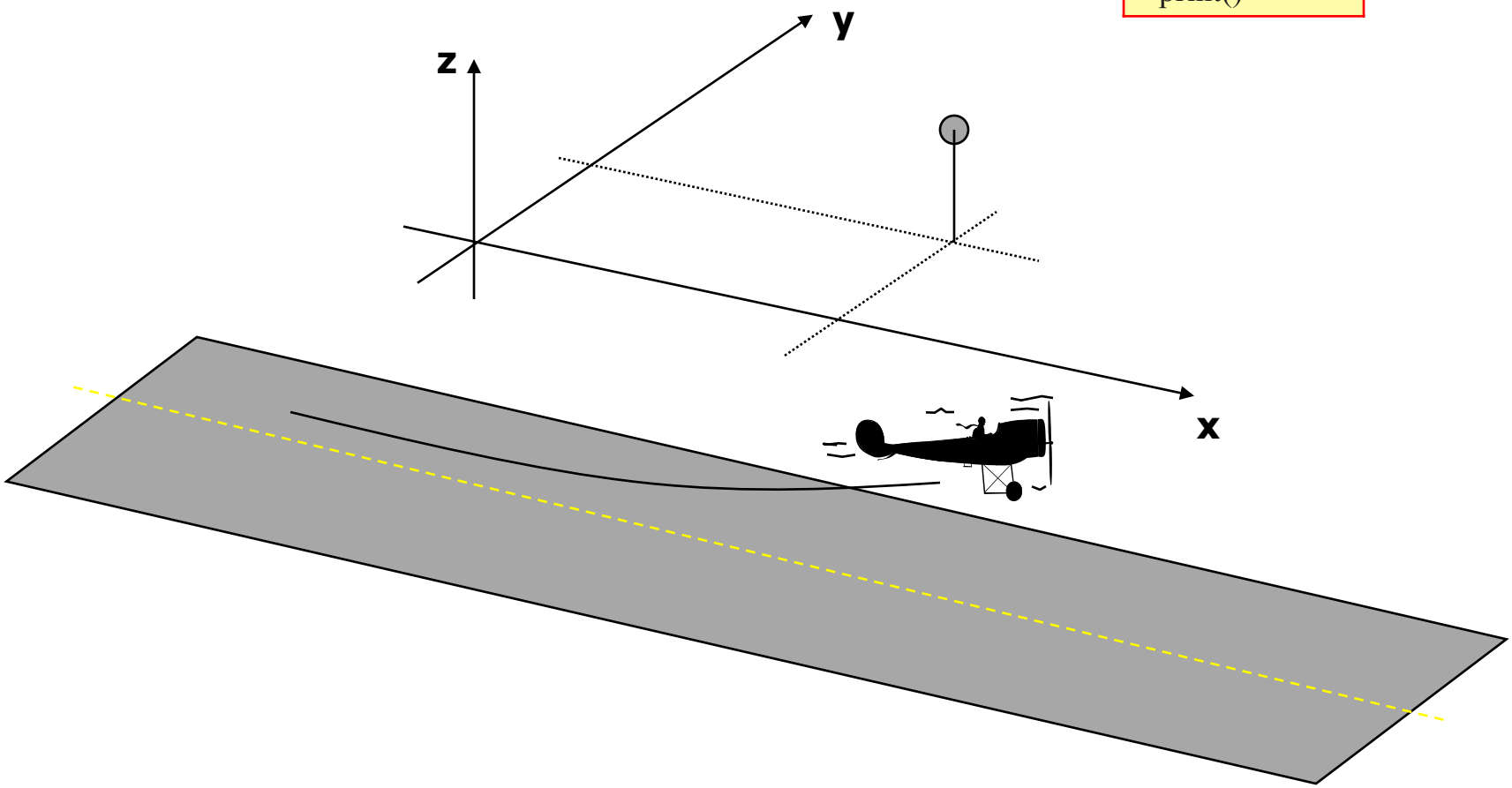


Programming in “present” tense



Future





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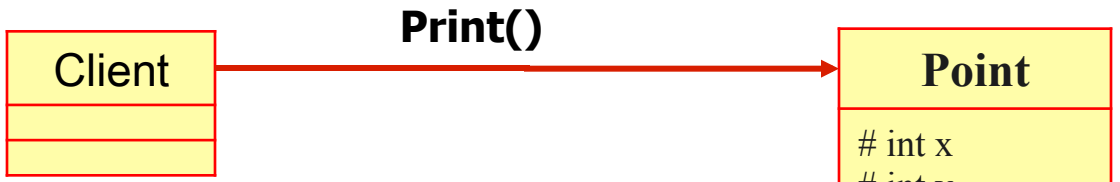
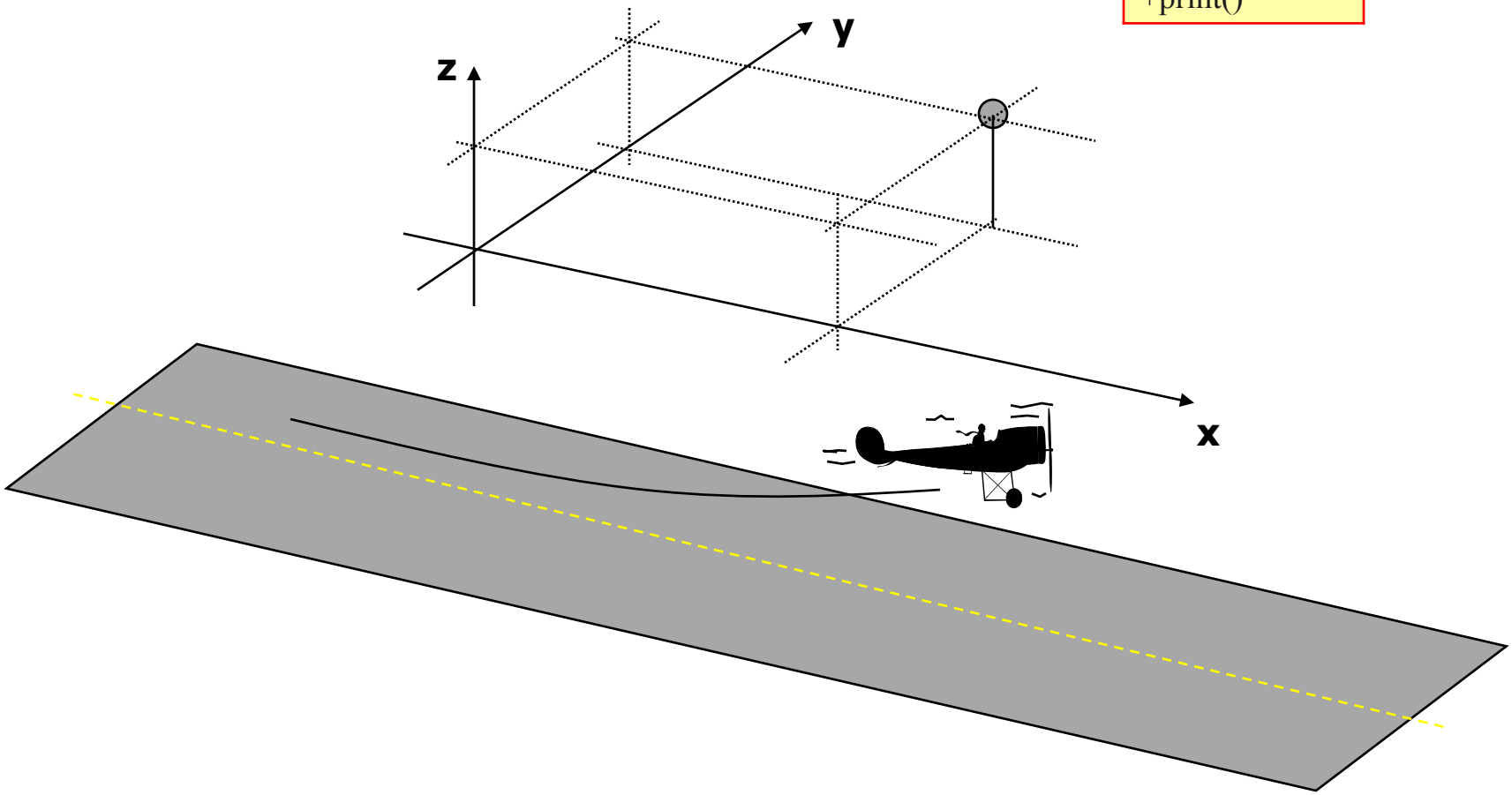
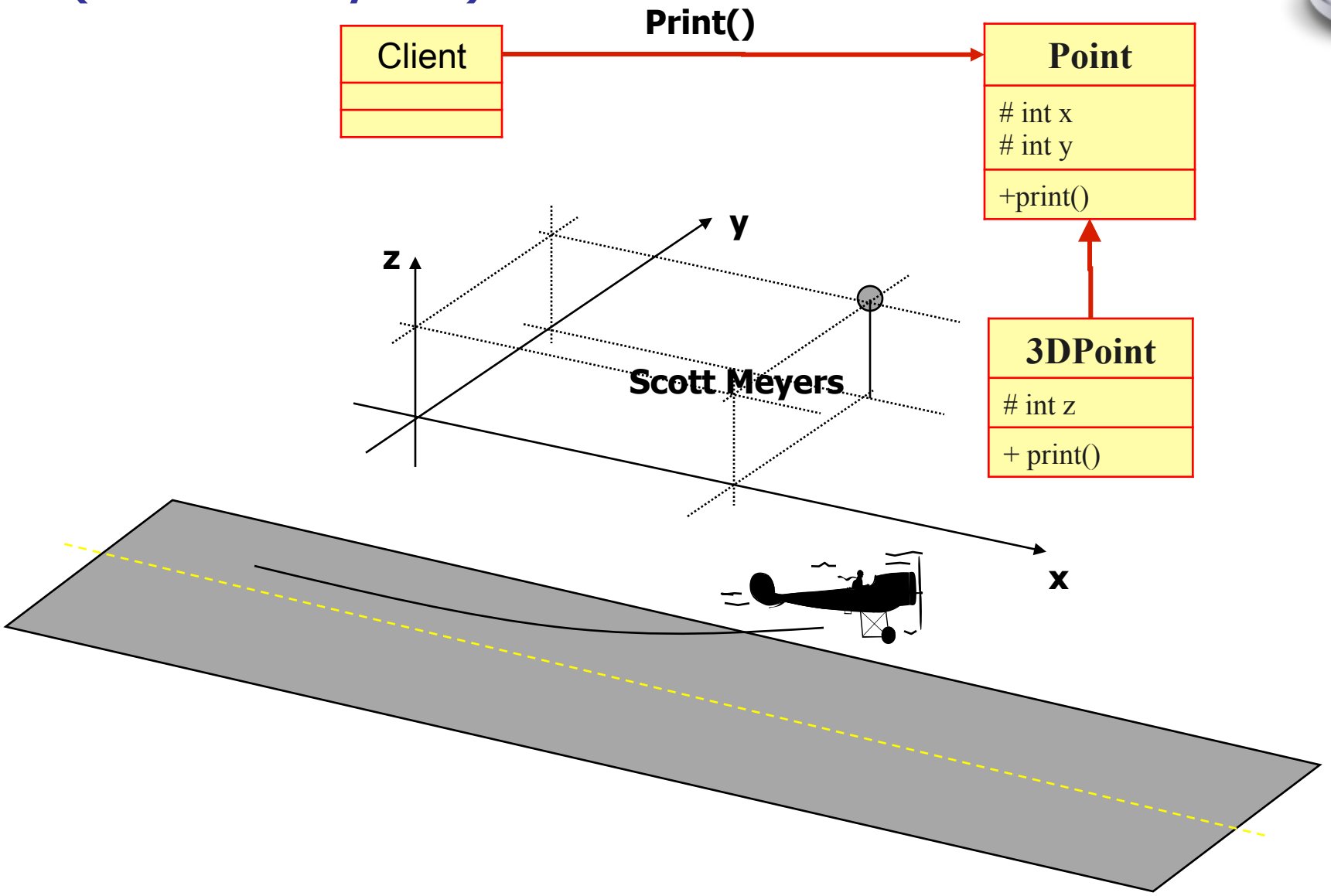
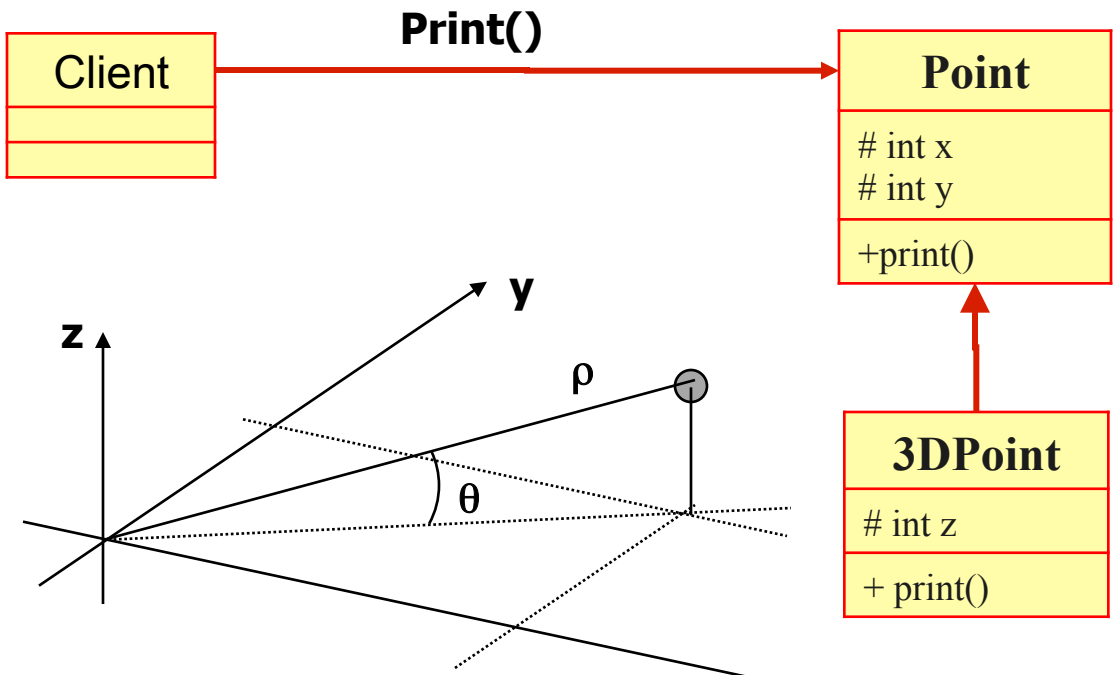


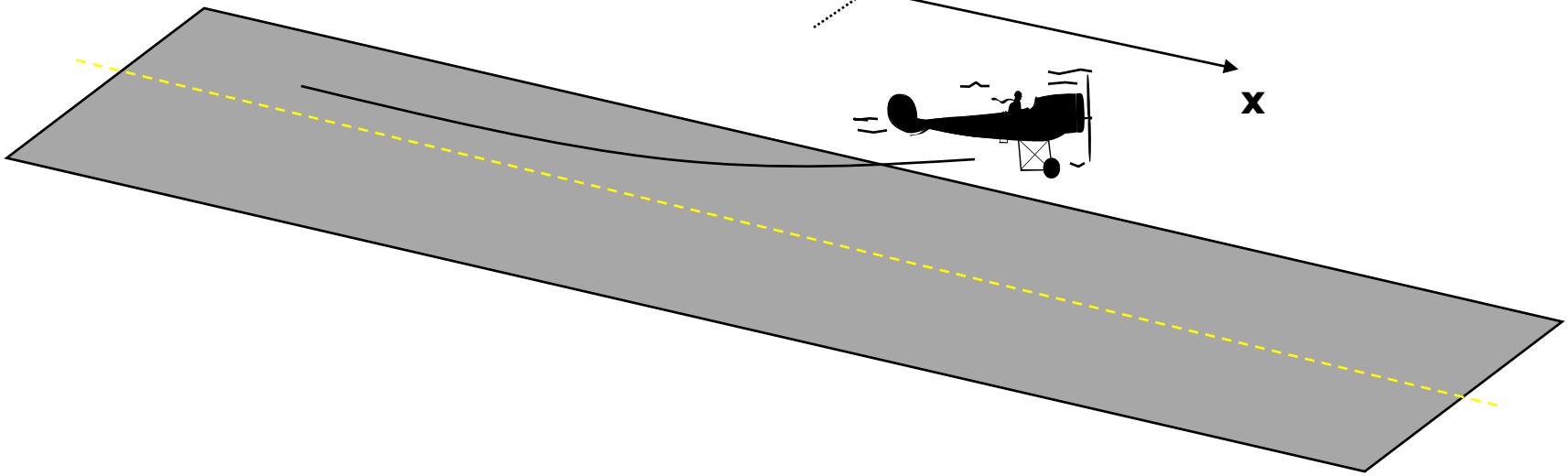


Programming in "Future" tense (Scott Meyers)

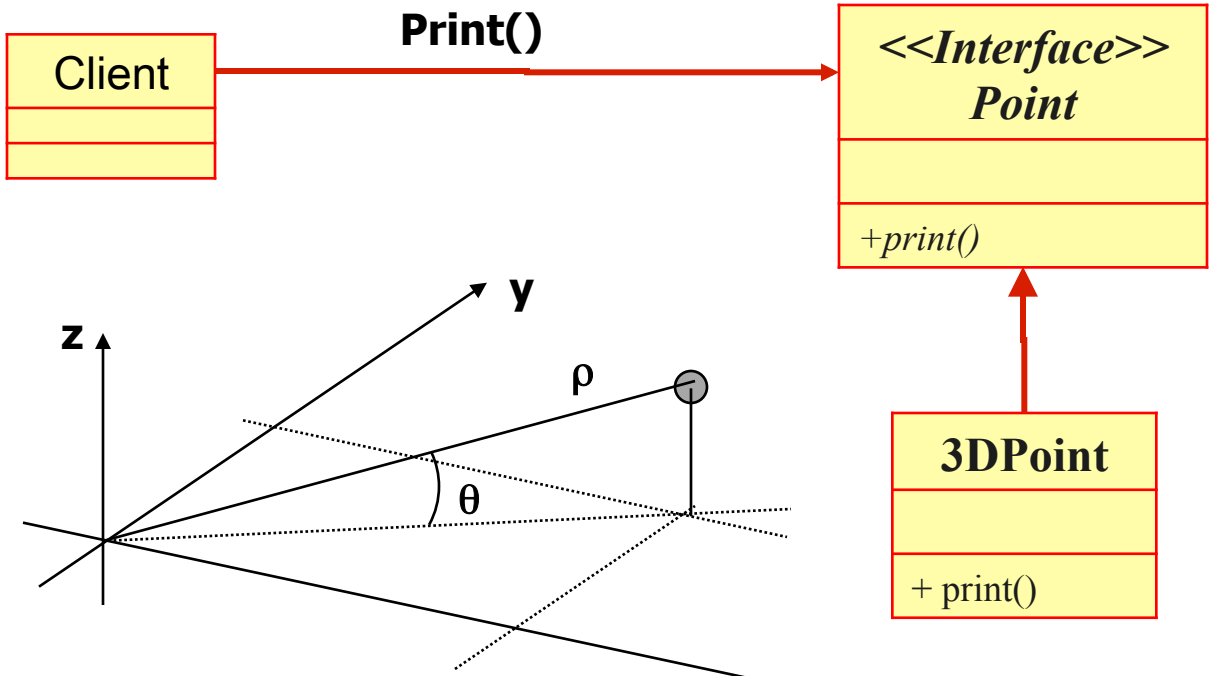


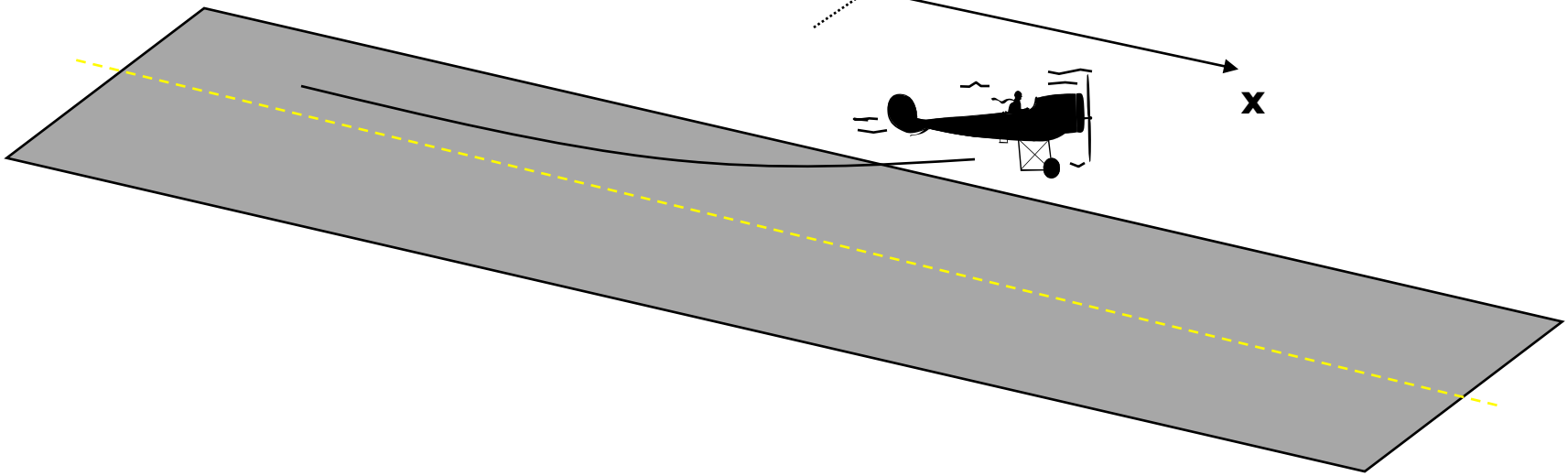
Programming in “Future” tense



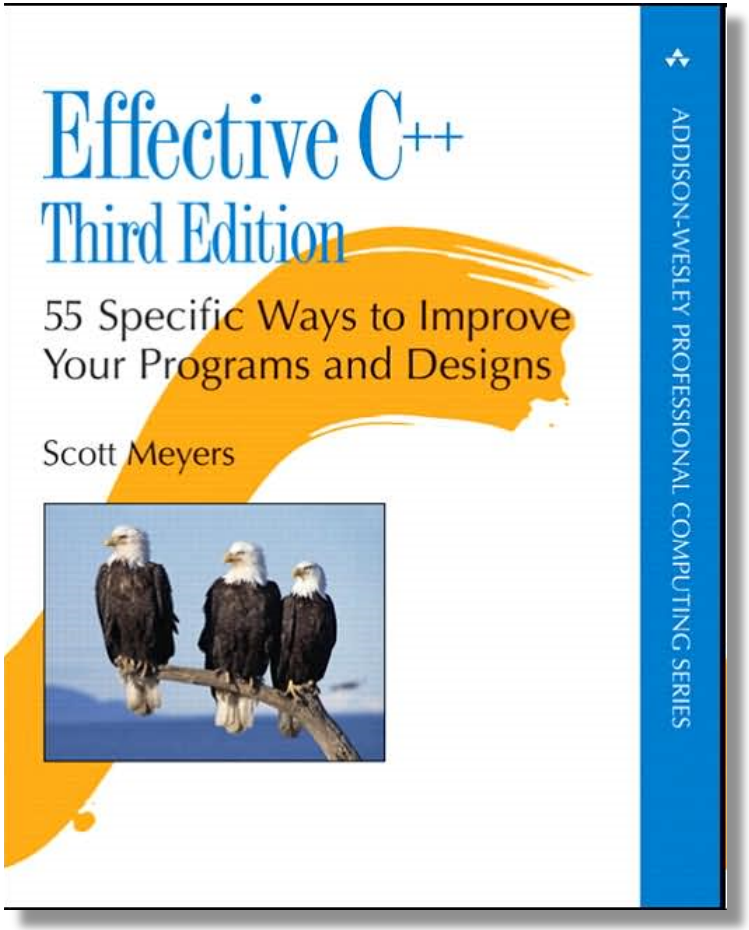


Programming in “Future” tense



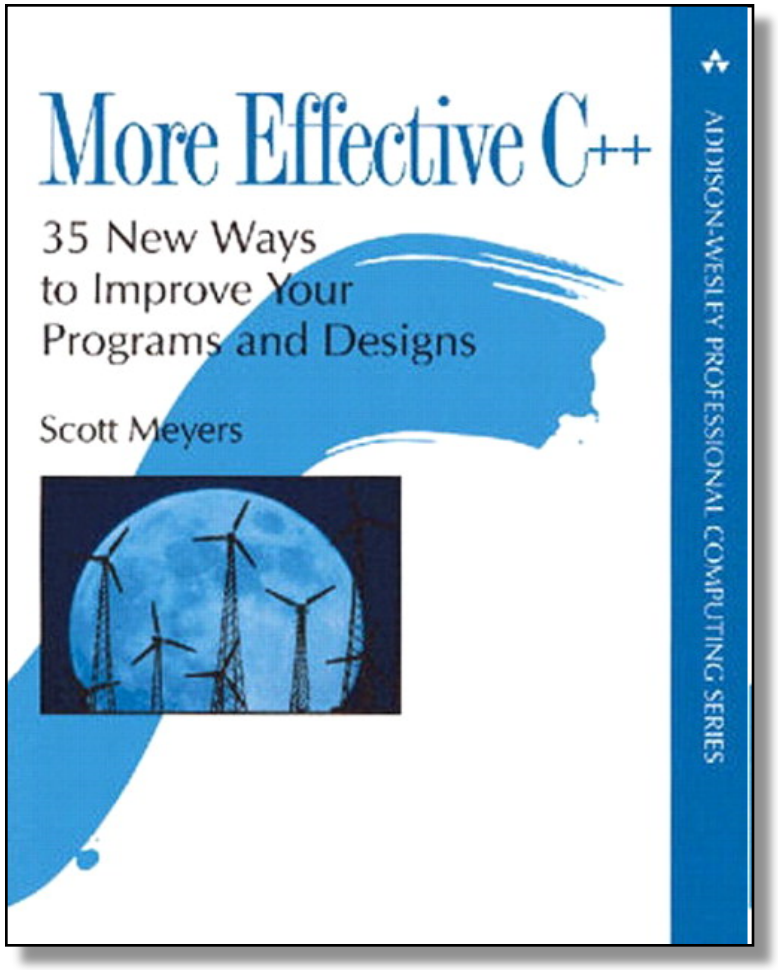


Scott Meyers



Effective C++

Scott Meyers



More Effective C++

Managing the changes

- Isolate Likely to Change Items :
  - Modularity : Interchange
  - No Global Items : Change Localization
  - No Hardcode Items (Magic Numbers) : Hide implementation changes
- No Assumption on Implementation !!!!!
  - Design by Interface
- Separation of Concerns
  - Business Services
  - Technical Services

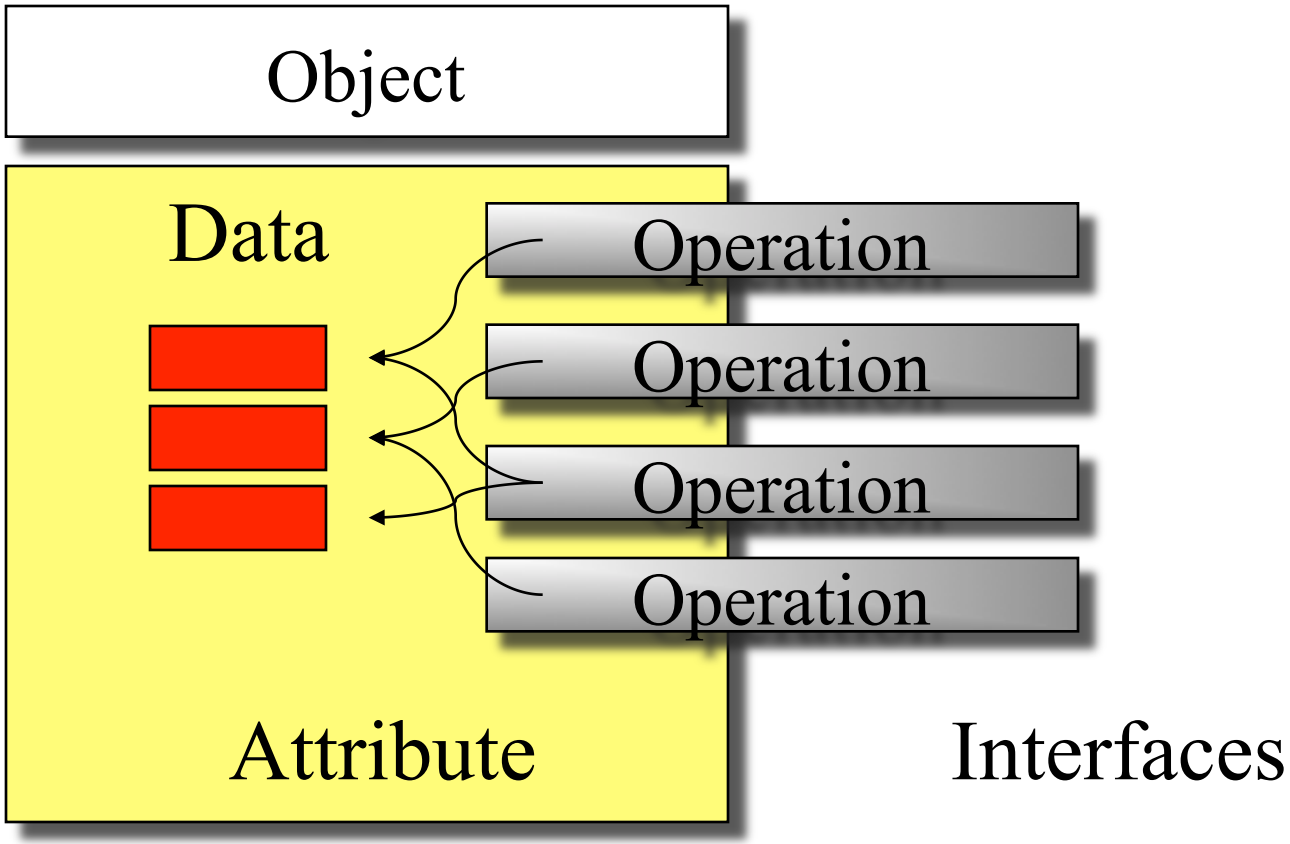
Separation of Concerns (views)

Business

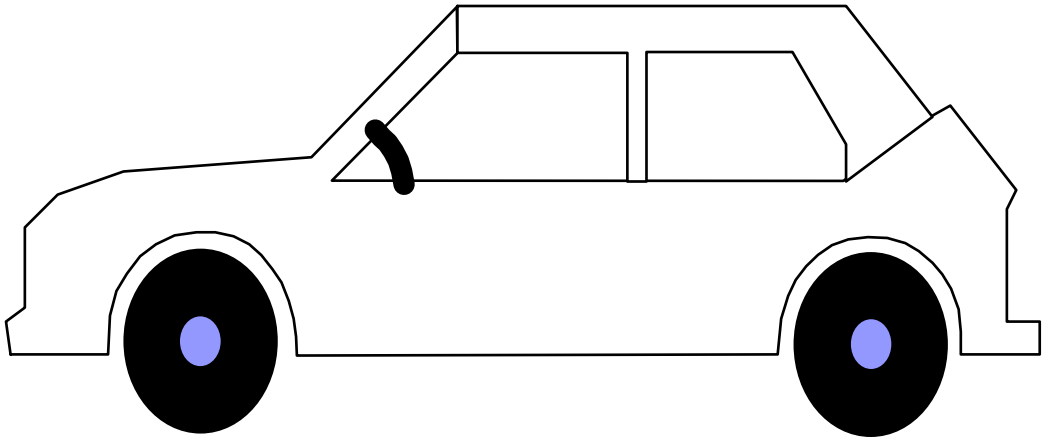
IT

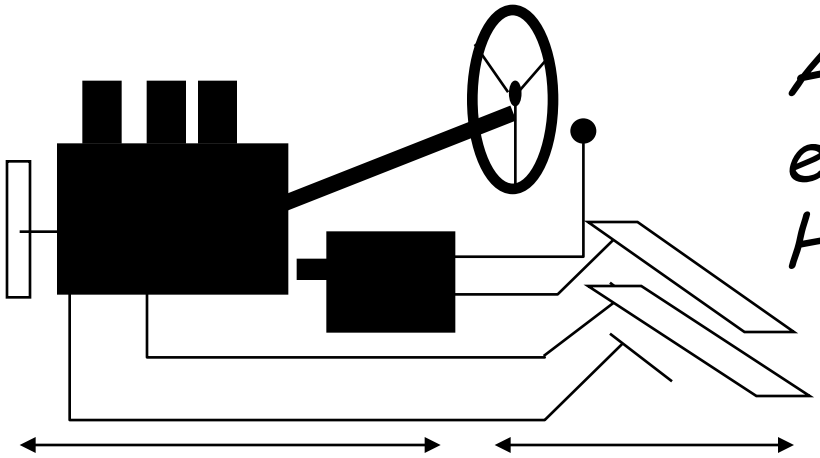
Traduction en cours

Object Paradigm



car analogy





Implementation *Interface*

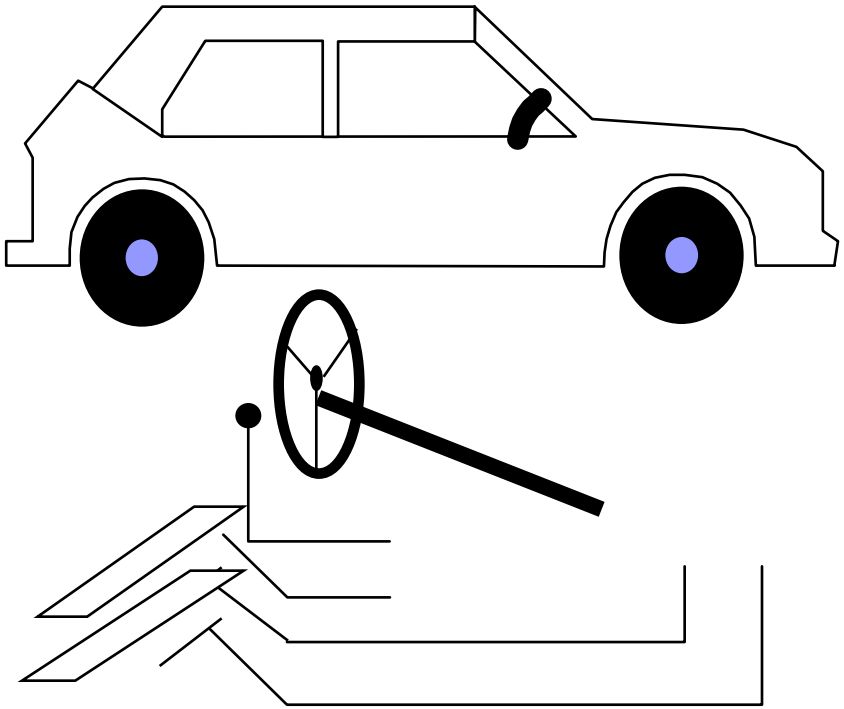
A driver doesn't care of engine's internal working. He only knows the interface

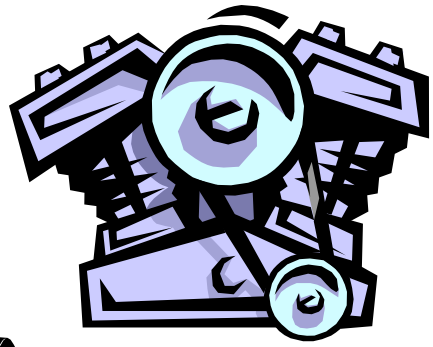
Interface

```
vehicle {

        attributes engine

        interface car {

        start()
        accelerate()
        stop()

        }
}
```

car ⟶ start()

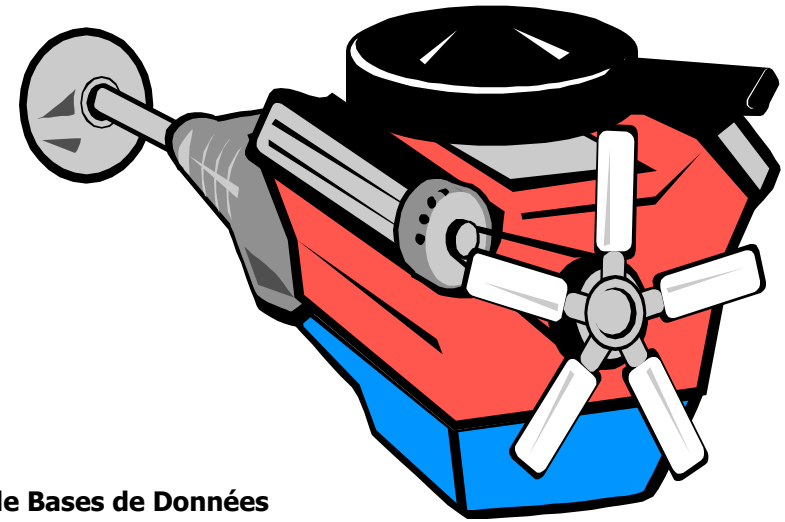
Interface VS implementation





Interface

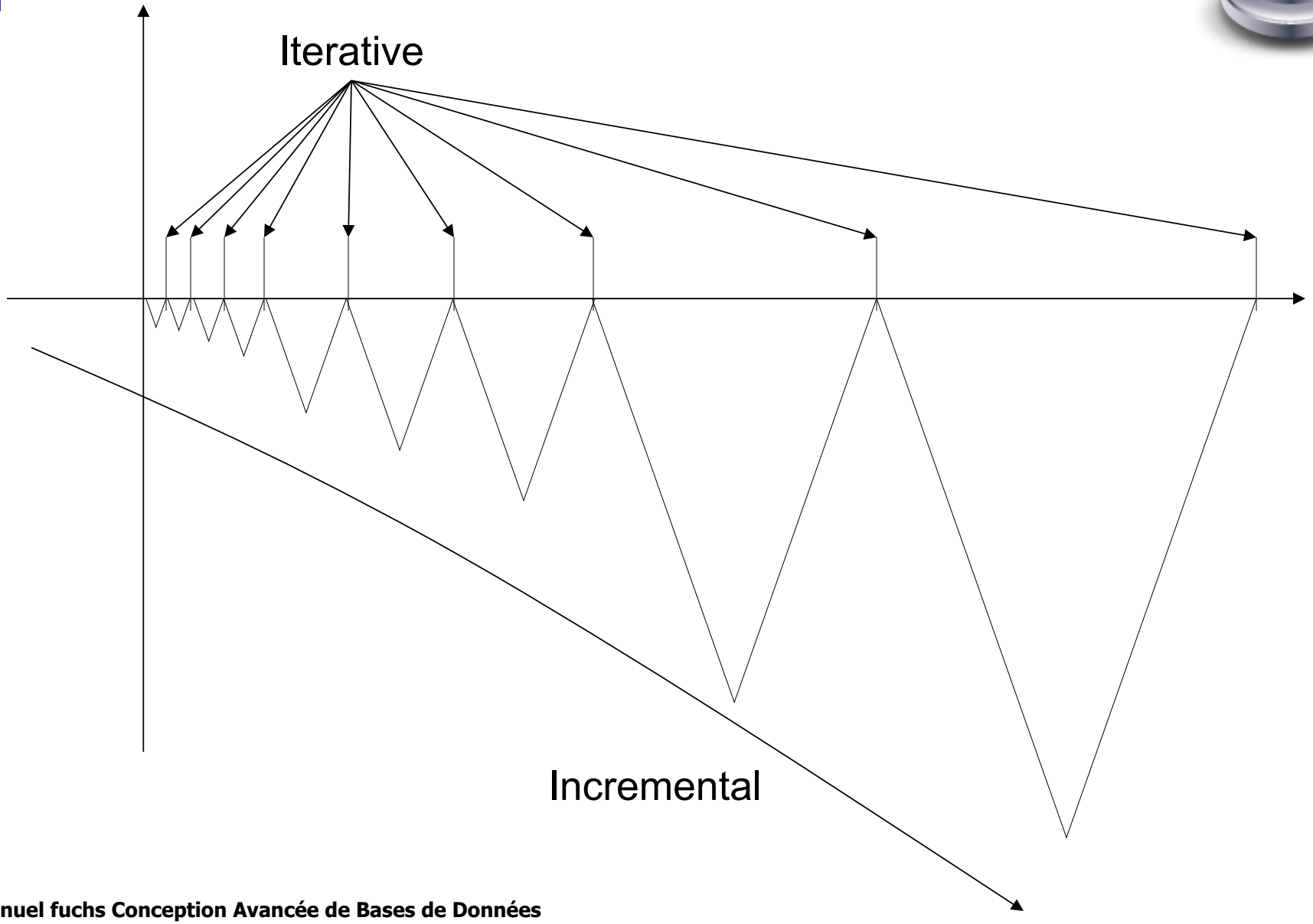
(specification)



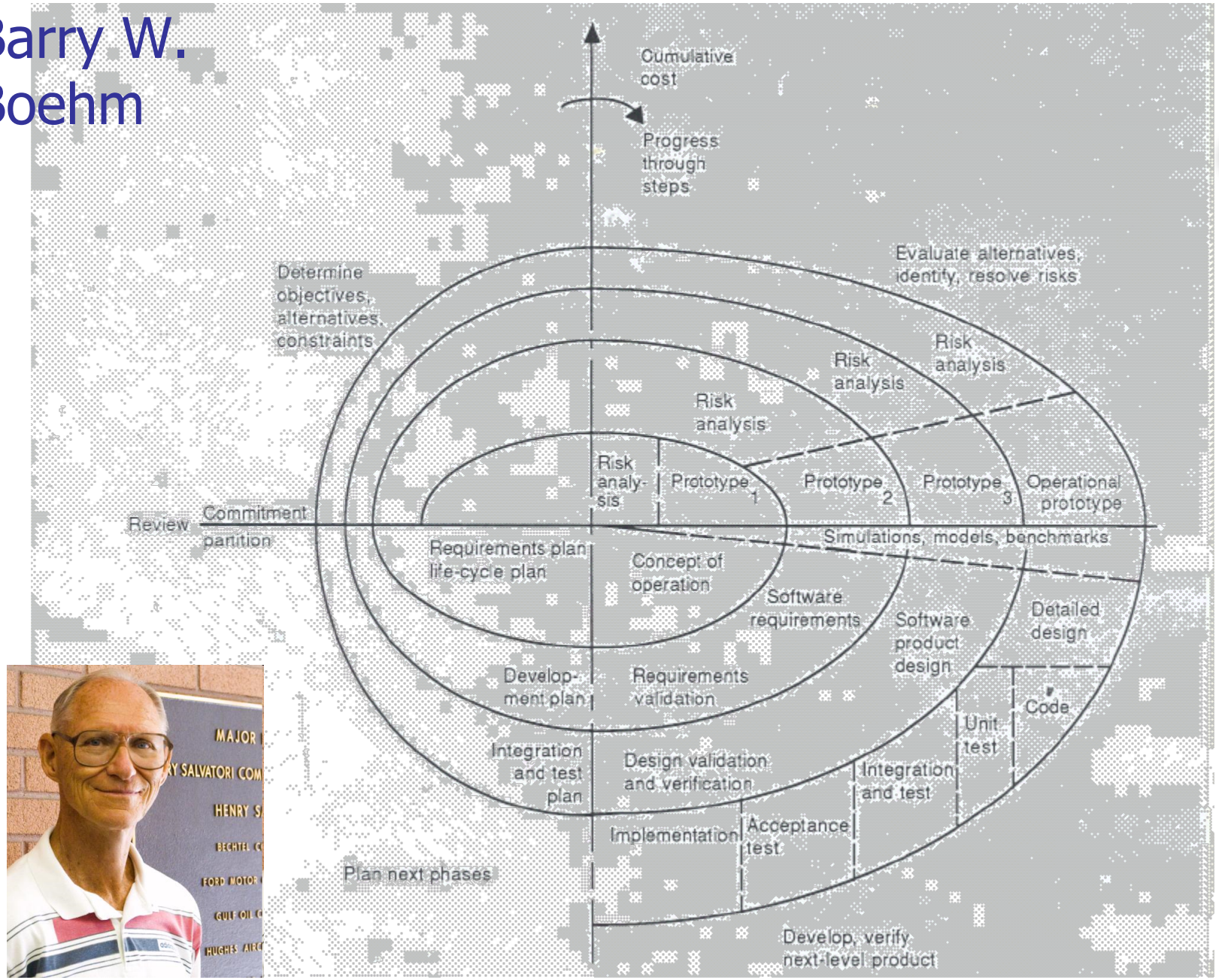
Implementation

(body)

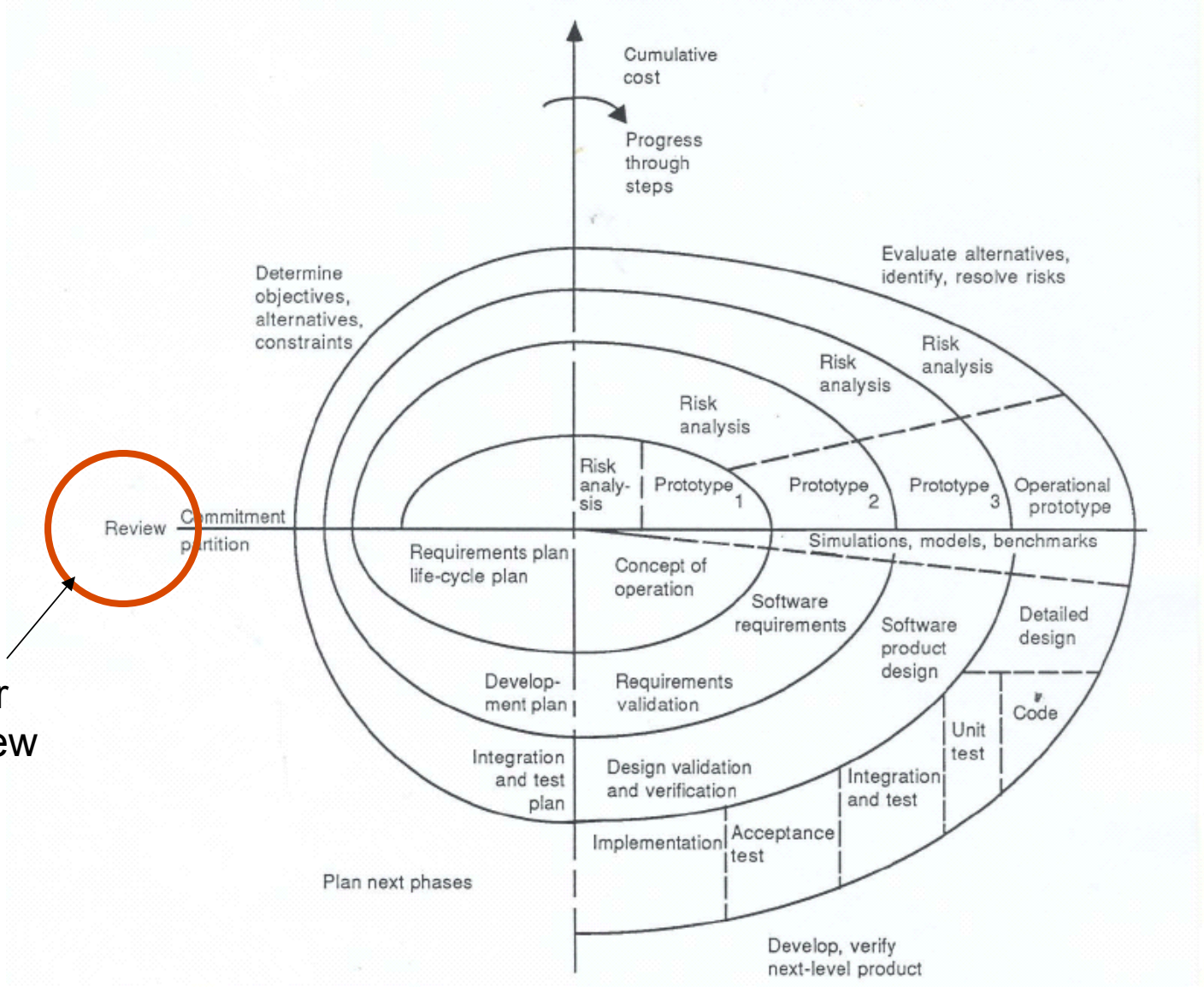
Iterative and Incremental development process



Barry W. Boehm



Barry W. Boehm spiral



Pair Review

Use Case Prototyping Cycle