IBM Software Group

Essentials of Visual Modeling with UML

Module 1: Introduction to Object Technology

Rational. software

Objectives

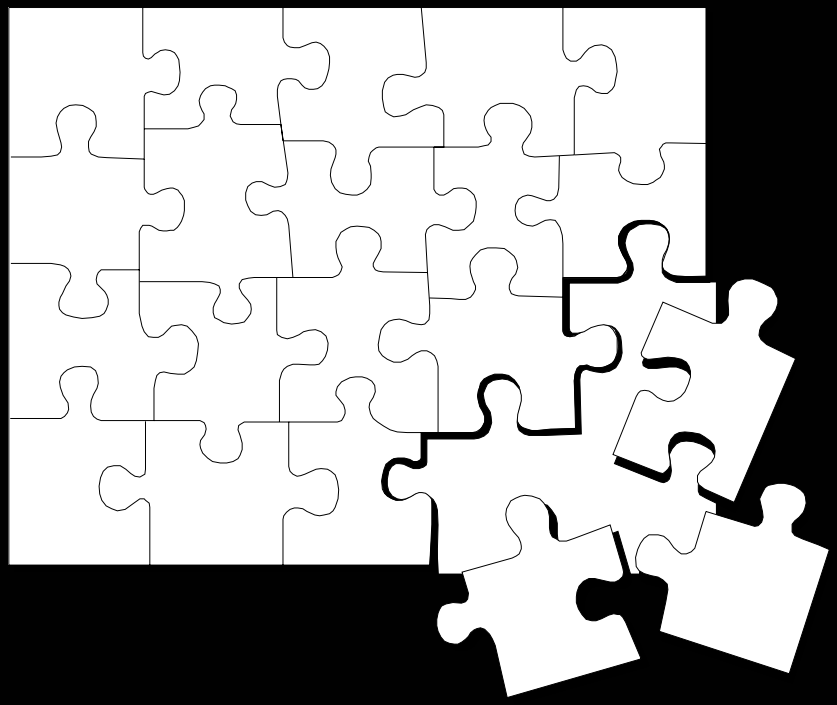
- Define object technology and show its strengths.
- Explain the history of object technology.
- Discuss how object technology is used today.

Where Are We?

- What is object technology?
  - Where is object technology used today?

What Is Object Technology?

- A set of principles (abstraction, encapsulation, polymorphism) guiding software construction, together with languages, databases, and other tools that support those principles. (*Object Technology - A Manager's Guide*, Taylor, 1997.)

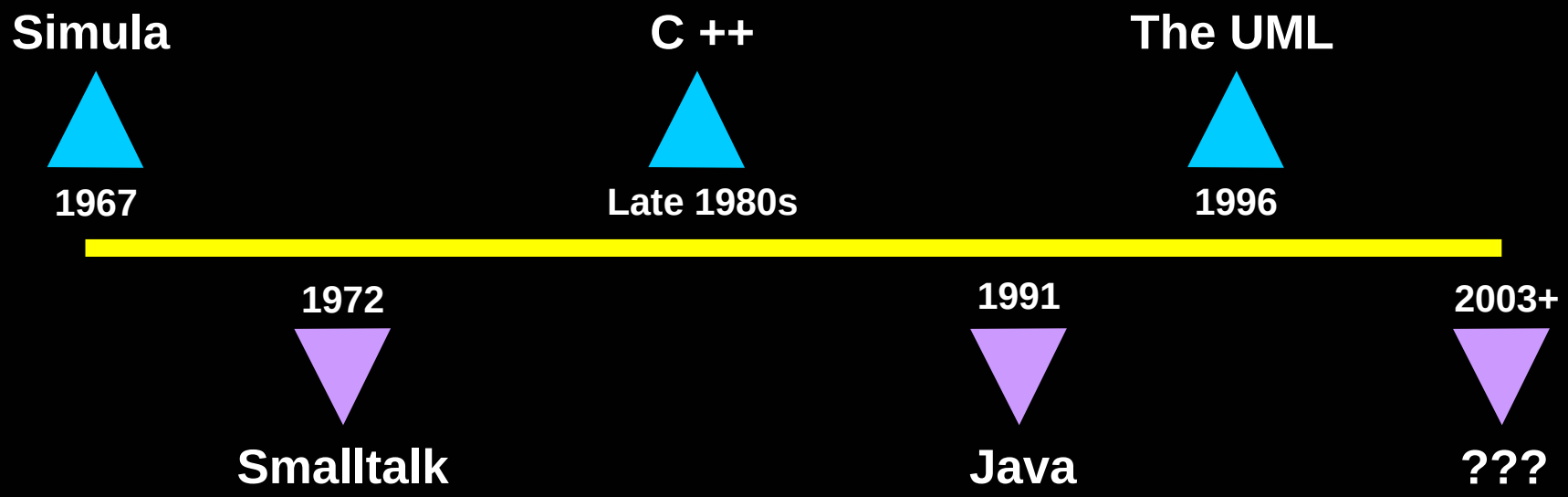


The Strengths of Object Technology

- Reflects a single paradigm
- Facilitates architectural and code reuse
- Reflects real world models more closely
- Encourages stability
- Is adaptive to change

The History of Object Technology

- Major object technology milestones

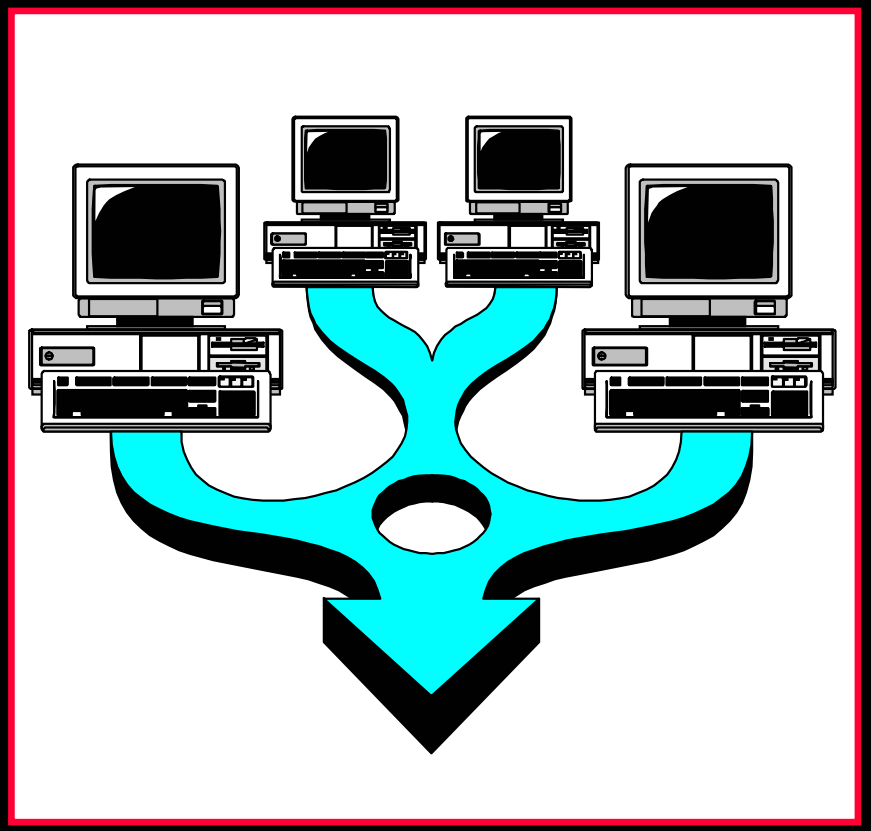


Where Are We?

- What is object technology?
- ★ Where is object technology used today?

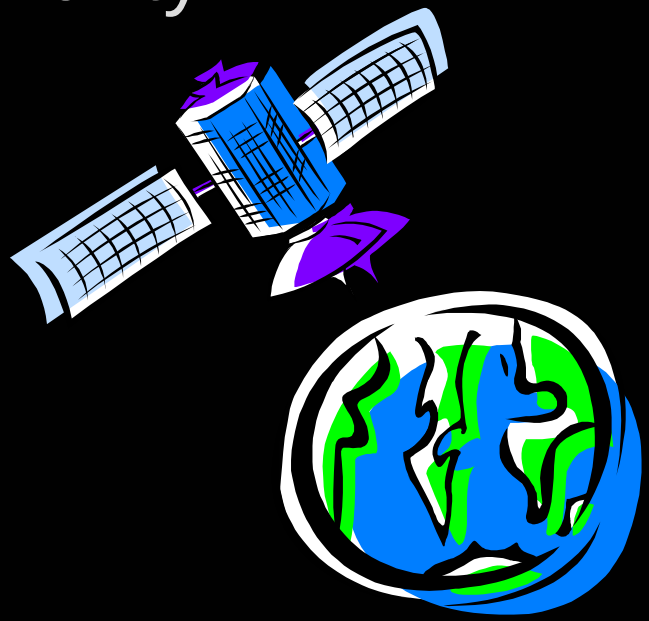
Where Is Object Technology Used?

- Client/Server Systems and Web Development
  - Object technology allows companies to encapsulate business information in objects and helps to distribute processing across the Internet or a network.



Where Is Object Technology Used? (cont.)

- Real-time systems
  - Object technology enables real-time systems to be developed with higher quality and flexibility.



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Differences Between OO and Structured Design

- Object-orientation (OO)
  - Melds the data and data flow process together early in the lifecycle
  - Has a high level of encapsulation
  - Promotes reuse of code differently
  - Permits more software extensibility

Discussion

- What is your perception of object technology?
- What do you perceive as object technology's strengths? Its weaknesses?
- Why are you making the shift to object technology?