

Modeling Processes

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What are the processes?

- ▲ Software development
- ▲ Product development
- ▲ Testing
- ▲ Maintenance
- ▲ Upgrade

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A Wider View



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What comes before the development process?

- ▲ Someone decides to create a software system.
- ▲ Why?
 - money
 - satisfaction
 - laziness
 - necessity

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What types of decisions?

- ▲ Exact requirements
 - Maybe it can be built in increments
 - Variations for different markets
- ▲ Build/Buy
 - use in-house staff
 - contract with software house
 - buy existing product

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Life Cycle

- ▲ Describes phases through which something passes from beginning to end
- ▲ Software life cycle is different from the product life cycle
- ▲ Project life cycle
 - begins with requirements
 - ends with delivery
- ▲ Product life cycle continues until a product is discontinued

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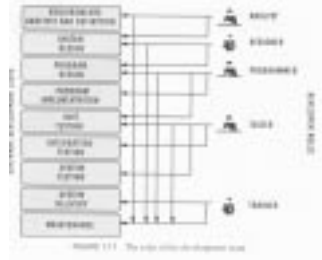
Process and Life Cycle

- ▲ A process is a description of how to progress through a life cycle
- ▲ Plans associate a process with the resources needed to complete the life cycle
- ▲ Standard processes assume standard life cycles
- ▲ Process definitions allow us to capture experience

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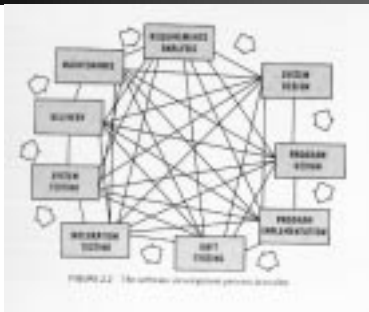
Waterfall



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No controls, chaos



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Process steps

- ▲ 1. Phase Name
 - 1.1. Description
 - 1.2. Responsibility.
 - 1.3. Input
 - 1.4. Entry criteria
 - 1.5. Activities
 - 1.6. Output
 - 1.7. Exit criteria
 - 1.8. Metrics

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Iterative



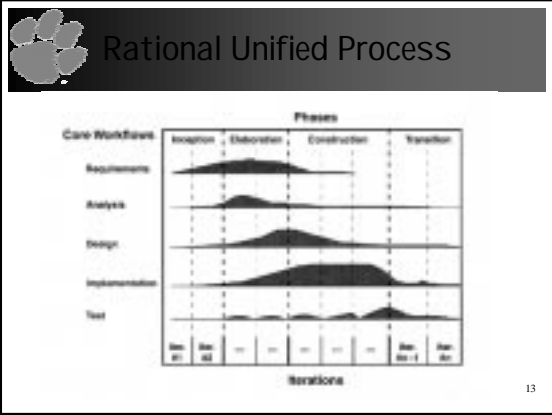
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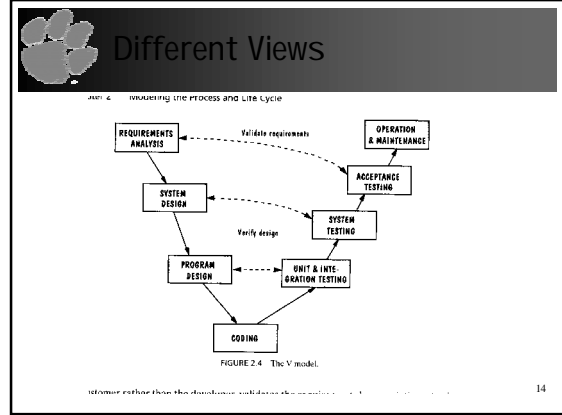
Spiral model



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Conclusion

- ▲ Processes define a set of steps so that all project members can understand the context of their role(s)
- ▲ A project needs many processes
- ▲ The sequence of steps for the same process differs from one project type to another
- ▲ There are many ways to show the process steps

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