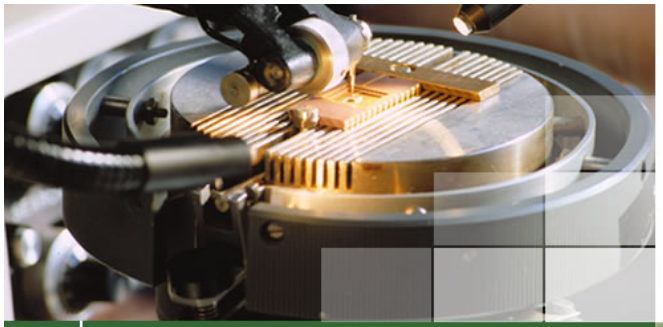

POLITECNICO DI MILANO

Dipartimento di
Elettronica e Informazione

Planning and Managing Software Projects 2011-12

Session 2

Course Overview

Classic Mistakes

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Credits

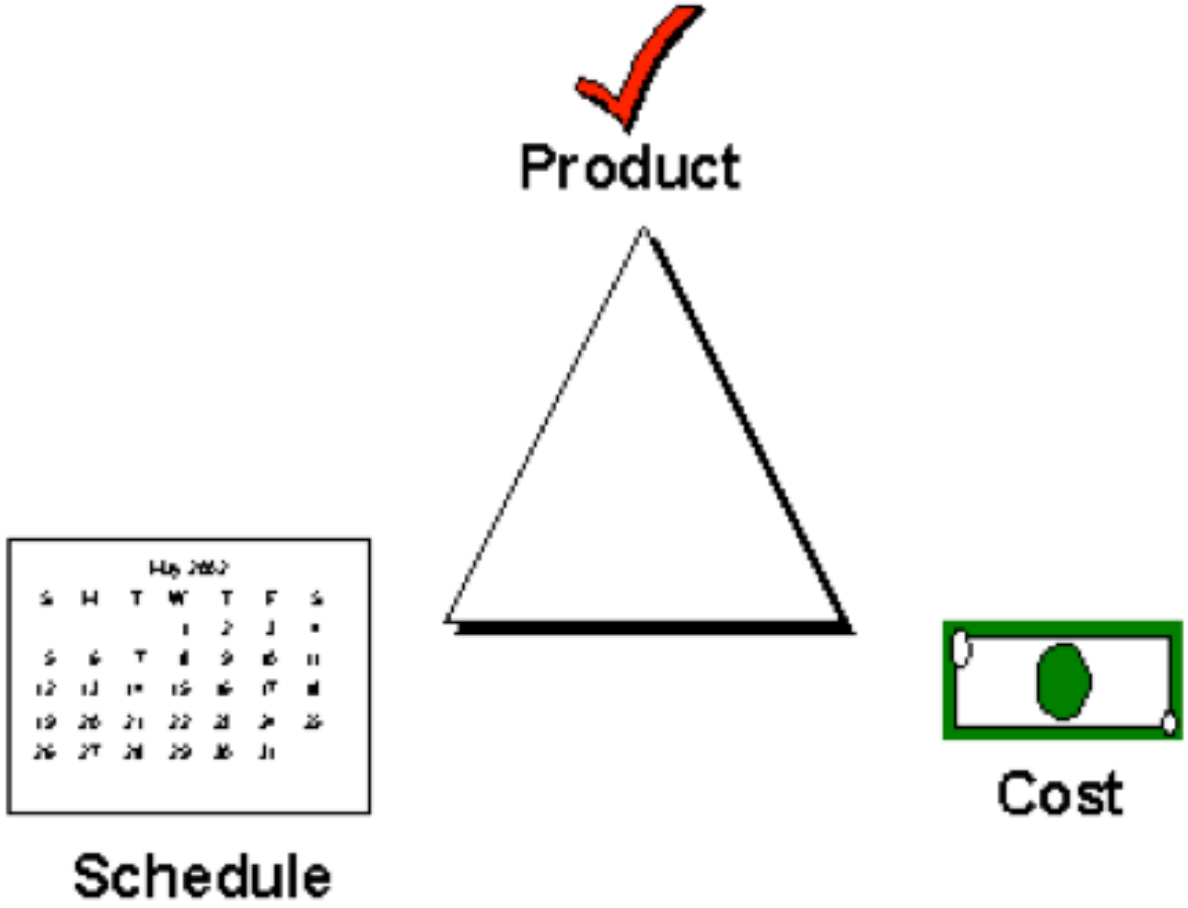
- This slides are largely based on Prof. John Musser class notes on “Principles of Software Project Management”
- Original slides are available at http://www.projectreference.com/
- Reuse and republish permission was granted

Class 1 Review

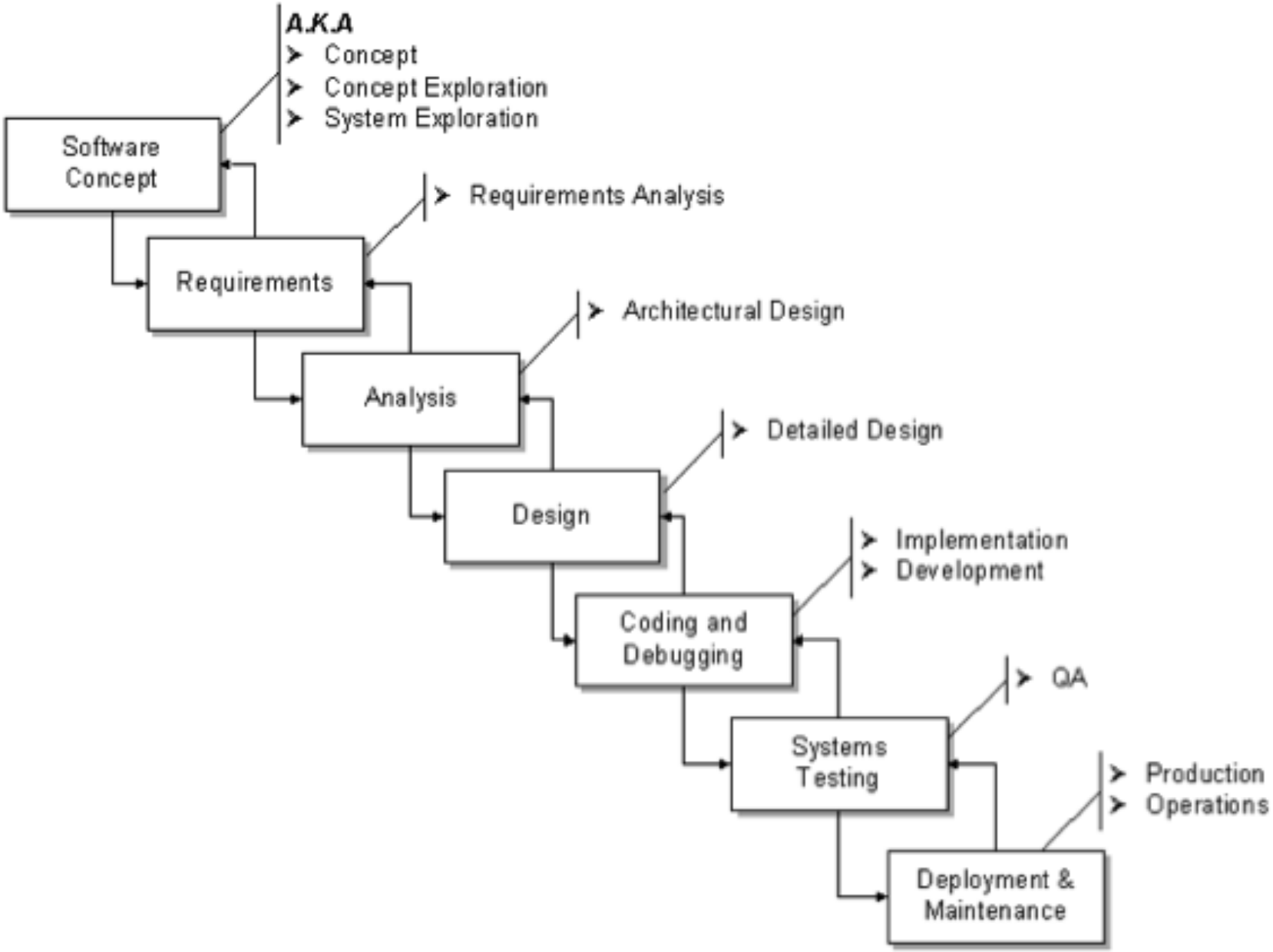
- Project and Program
- The field
- 4 Project Dimensions
  - People, process, product, technology
- Rapid Development Strategy
  - Avoid classic mistakes, development fundamentals, risk management, schedule-oriented practices
- Trade-off Triangle
- Process. One size not fit all.
- Phases

Trade-off Triangle

- Know which of these are fixed & variable for every project



Project Phases A.K.A.



Today

- Classic Mistakes

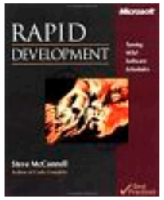
36 Classic Mistakes

- McConnell's Anti-Patterns
  - The mistakes http://www.stevemcconnell.com/rdenum.htm
- Seductive Appeal
- Types
  - People-Related
  - Process-Related
  - Product-Related
  - Technology-Related
- Gilligan's Island
  - Every week there's some new, crazy scheme to escape the island, but at the end of the episode, the castaways always end up stuck on the island for yet another week.
  - See http://www.codinghorror.com/blog/archives/000889.html

Let's Spend 30 Minutes on the Case Study

- The case study
  - Steve McConnell

    Books

    Rapid Development: Taming Wild Software Schedules. Redmond, Wa.: Microsoft Press, 1996. 660 pages. Retail price: $35. ISBN: 1-55615-900-5. Available from Microsoft Press 1-800-MS-PRESS (1-800-677-7377).

    Buy Rapid Development from Amazon.com in paperbook or Kindle formats or from O'Reilly in Ebook format.

    A Case Study in Classic Mistakes
  - Available online
    http://www.stevemcconnell.com/rdmistak.htm
  - Also cached at
    http://emanueledellavalle.org/slides/P&MSP2012_02b_Case-Study.pdf
- You have 30 minutes to go through the text and highlight mistakes
- Try also to name this mistakes
- After, you have read it, we will discuss all together

People-Related Mistakes Part 1

- Undermined motivation
- Weak personnel
  - Weak vs. Junior
  - Junior != bad
- Uncontrolled problem employees
- Heroics
  - “Can-do”, “how high” attitudes
  - Companies becomes their hostage
- Adding people to a late project

People-Related Mistakes Part 2

- Noisy, crowded offices
  - 60%of developers feel unsatisfactory environment
  - need quite and privacy
- Customer-Developer friction
  - Results in ‘poor communication’
  - Passive vs. aggressive?
- Unrealistic expectations
  - Perception woe
- Politics over substance
  - managing up
- Wishful thinking
  - Cognitive dissonance
  - Closing your eyes and hoping
  - McConnell: maybe causes the most problems in software development

People-Related Mistakes Part 3

- Lack of effective project sponsorship
  - a must
  - PMs have no power if they lack a sponsor
- Lack of stakeholder buy-in
- Lack of user input
  - User input is number 1 reason for success
  - Without user input you can only guess

Process-Related Mistakes Part 1

- Optimistic schedules
  - Similar to wishful thinking
  - Puts unnecessary pressure
- Insufficient risk management
  - Risks will manage you
- Contractor failure
  - late, poor quality, or fails to meet specifications
  - Requires lots of management
- Insufficient planning
  - “if you don’t care where you’re going, any plan will do”
- Abandonment of plan under pressure
  - Fall into code-and-fix mode

Process-Related Mistakes Part 2

- Wasted time during fuzzy front end (before sign-off)
- Shortchanged upstream activities
  - Lack of analysis and design results in implementation problems
    - 10 to 100 times more costly
    - 5 hrs vs. 50
- Inadequate design
  - I've seen schedules without it at all
- Shortchanged quality assurance
  - Seems easy to compress
  - 1 day QA == 3 to 10 days later

Process-Related Mistakes Part 3

- Insufficient management controls
  - PMs need to be able to track
  - We'll cover lots of these in the second part of the course
  - It's the core of PMI
- Premature or too frequent convergence
  - Waste of time
- Omitting necessary tasks from estimates
  - Often 20-30% of a schedule
- Planning to catch-up later
  - How many times have you seen a project catch-up?
  - Only by all-nighters
- Code-like-hell programming

Product-Related Mistakes

- Requirements gold-plating
  - http://www.phrases.org.uk/meanings/gild-the-lily.html
  - Performance is required more often than need be
- Feature creep
  - A normal project experiments 25% average change in requirement
- Developer gold-plating
  - Beware the pet project
  - Nifty new technology
- Push-me, pull-me negotiation
  - Slip schedule and add features
- Research-oriented development

Technology-Related Mistakes

- Silver-bullet syndrome
- Overestimated savings from new tools and methods
  - Fad warning

[source http://blogs.infosupport.com/blogs/richardz/archive/2010/02/26/dilbert-on-changing-methodology-during-a-project.aspx]

- Switching tools in mid-project
- Lack of automated source-code control

Optional Reading

- McConnell: Chapters 1-4
  - We covered most of Ch 3 today
- Schwalbe: chapters 1-2, 11 (344-345)