

Homework 5
Project Management Case Studies

Out: October 14, 2003
Due: November 4, 2003, 3pm

Learning objectives

In this homework you will reflect on the three case studies in the context of our class framework: project preparation, planning, monitoring and adaptation. A second objective is to speculate on how the ratio of software to hardware in the artifact/system being developed might be a driver of project management processes and dynamics.

Resources

Lecture Notes ESD.36 for Cases 1-3
Microsoft Office 2000 Case study (uploaded to server and in reading packet)
Q&A Session with Speakers – minutes on server

Part 1

Matrix Comparison of Three Cases

We will listen to the following three cases in class:

Thursday, October 16, 2003, 3pm-4:30pm

Case 1: Software Development Project/ Microsoft Office 2000 case
("software case")

Tuesday, October 21, 2003, 3pm-4:30pm

Case 2: Civil Architecture: The Boston Central Artery Project
("hardware case") – presented by Fred Salvucci

Thursday, October 23, 2003, 3pm-4:30pm

Case 3: Aerospace and Naval Projects: 1st SSN 688i
("mixed software and hardware case") – presented by Pat Hale

Make a one page 4x3 matrix, where the columns are the three cases and the rows are the four phases of our project management framework: preparation, planning, monitoring adaptation. Fill in the cells of that matrix with some of the most salient points you recorded for each case. (Use no smaller than 9pt font).

The following questions should help you in filling in the cells of the matrix.

1.) **Project preparation** - doing the right things

Why was the project initiated? Who were the major stakeholders? What were the initial objectives? Where did the funding come from? How was the project organized?

2.) **Project planning** - doing things right + doing the right things

What were major critical milestones? How was the project schedule coordinated among the major contributors, suppliers etc...? Who had coordination responsibilities? What methods and tools were used for planning?

3.) **Project execution and monitoring** - doing things right

What metrics were used to track progress and resource consumption? Was the project on track, technically, schedule wise, budget wise?

4.) **Project Adaptation** - doing things right

What corrective measures were taken by management throughout the project? Was the project descope? Were resources added? Did these management actions actually help or hurt the project?

Part 2

Post-Project Assessment

Write a short paragraph summarizing your impressions for each project.

What is your summary assessment of this project? Was it an unqualified success? Was it a failure? What are the lessons learned for future projects? Were there follow-up projects? Is the project still on-going? What makes this project unique?

Part 3

Hardware vs. Software Projects

The cases were chosen such that you would be exposed to a spectrum of rather-hardware versus rather-software centric projects. Describe in 200-600 words how the ratio of hardware/software and the complexity of these two aspects drive project management in your opinion. A hypothesis from the Product Development Process lecture was that software projects are amenable to a spiral-development approach, while hardware-development is best done in a phase-gate (waterfall) fashion. Do the three cases support that view?