

Strategic IT Project Management

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Objectives

- **Definitions**
- **Identifying the project**
- **Organizing, planning, and implementing the project**
- **PM techniques**
- **PM evaluation**

What is a Project?

- **Application of knowledge, skills, tools, and techniques to project activities to meet or exceed stakeholder needs and expectations.**



How to Recognize a Project

- **Constrained by limited resources to help you achieve objectives and realize benefits**
- **Planned, executed, and controlled**
- **Performed by people**
- **Has a beginning and an end**
- **Uses a prescribed methodology**

Project Management Defined

- **The application of the systems approach to the management of technologically complex tasks or projects whose objectives are explicitly stated in terms of the time, cost, and performance parameters.**
 - *Cleland and King, 1988*

Newsflash!!

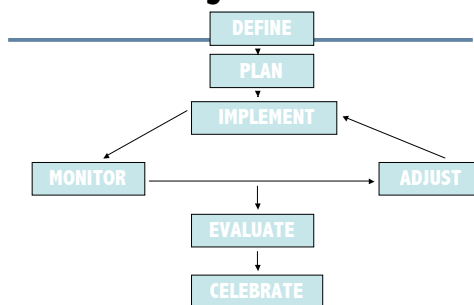
- **Establishing a committee is not project management.**
- **Just about everything that characterizes committees is oriented toward recommendations.**
- **A project is oriented to results ... Appointing a project manager is not, by itself, establishing a project.**
 - Martin (1976)



Characteristics of PM

- **Defined goals**
- **Designated resources**
- **Organizationally specific**
- **Prescribed methodology**

Stages of PM



Project Management Skills

- **Motivation**
- **Communication**
- **Delegation**
- **Supervision**
- **Negotiating**
- **Conflict management**
- **Problem solving**
- **Team building**

Project Definition



Identifying a Specific Project

- Define objective
- Scope the project
- Identify constraints
- Prepare initial plan
- Prepare business case
- Get approval

The Plan

- Who does what?
- Role of the project manager?
- Role of each team member?
- Reporting and tracking methods?

Objectives of Planning

- **Specific**
- **Measurable**
- **Attainable with difficulty**
- **Time frame**

Planning Steps

- **Needs assessment**
- **Problem identification**
- **Goal setting**
- **Implementation**
 - Task analysis
 - Staging
 - Scheduling
- **Evaluation**



Project Plan

- **Group members**
 - Define role of each member
- **Clear picture of product**
 - Description and scope
 - Statement of assumptions
 - Statement of outcomes
- **Tools and techniques**
- **Plan for quality management**
- **Timeline**

Project Group Members

- Define role of each group member
- Make use of task allocation chart

TASK #	TASK	DURATION	NAMES
1	Decide on purpose of needs analysis	2 Days	Fred, Rosa
2	Design survey	5 Days	Fred, Mary
3	Select recipients	5 Days	Janet, Mike
4	Test survey	5 Days	Fred
5	Send out survey	1 Day	Mike
6	Wait for replies	20 Days	
7	Chase non-respondents	5 Days	Fred
8	Analyze the results	10 Days	Suzanne
9	Write report	3 Days	Fred
10	Present conclusions	1 Day	Fred

Product Description and Scope Statement

- Deliverables and format
- Project objectives with quantifiable criteria to be met for project success
- Constraints and assumptions
- Quality management

Tools and Techniques

- Charts
 - GANTT
 - PERT
 - Critical path method (CPM)
- Risk analysis
- Project Management Software

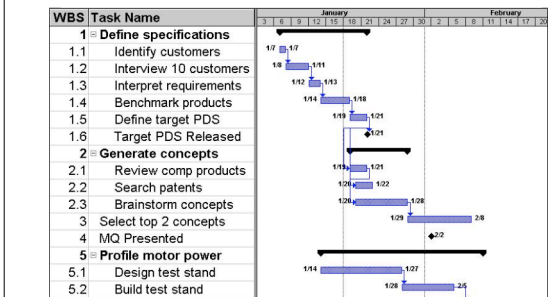
Gantt Chart

- Gantt charts are a project planning tool used to represent the timing of project tasks.
- Simple to understand and easy to construct.
 - Each task takes up one row.
 - Dates run along the top in increments of days, weeks or months.
 - The expected time for each task is represented by a horizontal bar.
 - Tasks may run sequentially, in parallel or overlapping.
- To mark "milestone" events and mark them with a special symbol.

PERT and CPM

- PERT
 - Program evaluation and Review technique
 - Depict task, duration, and dependency information.
- CPM
 - Critical Path Method
 - Critical Path Method (CPM) charts are similar to PERT charts and are sometimes known as PERT/CPM.
 - The critical path consists that set of dependent tasks (each dependent on the preceding one).

Gantt Chart



CPM

Task	Possible start	Length	Type	Dependent on...
1. High level analysis	week 1	5 days	sequential	
2. Selection of hardware platform	week 1	1 day	sequential	1
3. Installation and commissioning of hardware	week 3	2 weeks	parallel	2
4. Detailed analysis of core modules	week 1	2 weeks	sequential	1
5. Detailed analysis of supporting utilities	week 1	2 weeks	sequential	4
6. Programming of core modules	week 4	3 weeks	sequential	4
7. Programming of supporting modules	week 4	3 weeks	sequential	5
8. Quality assurance of core modules	week 5	1 week	sequential	6
9. Quality assurance of supporting modules	week 5	1 week	sequential	7
10. Core module training	week 7	1 day	parallel	6

Project Management Software

- **Microsoft Project**
- **Visio**
- **Inspiration**
- **Literally hundreds of choices**
 - **Start simple!!**

Quality Management

- **Identify quality standards and how to satisfy them**
- **Determine how to evaluate overall project performance on a regular basis**
- **Outline quality control measures**

Tips from the Experts

- **Establish common means of communication**
- **Develop clear timeline for project development**
- **Keep eye**
 - **on the big picture**
 - **on the product**
 - **on the time**
- **Base decisions on facts**

Criteria for Evaluation

- **Goal relatedness**
- **Feasibility**
- **Efficiency**
- **Effectiveness**

Reasons Why Projects Fail?

- **People skills of project manager**
- **Poorly organized**
- **Lack of responsibility or accountability for outcome**
- **Money**
- **Unrealistic goals**
- **Buy-in**

Summary

- **Defined a project and project management**
- **Identified characteristics of a project**
- **Explored how to organize, plan, and implement the project**
- **PM techniques**
- **PM evaluation**

Sites Cited

- **Brief tutorial on Gantt Charts**
 - <http://www.me.umn.edu/courses/me4054/assignments/gantt.html>
- **Pert, CPM, and Gantt**
 - <http://studentweb.tulane.edu/~mtruill/dev-pert.html>
- **Mindtools**
 - http://www.mindtools.com/pages/article/newPPM_03.htm
- **PM Software**
 - <http://www.infogoal.com/pmc/pmcsvr.htm>
- **Project Management Center**
 - <http://www.infogoal.com/pmc/pmchome.htm>
- **Project Management Institute**
 - <http://www.pmi.org/>
