# Introduction

## *Project Management Concepts*

Project Management is only a tool - it is never a substitute for effective managers.

## *Definitions*

**Project** - A specific work effort, with specifically defined results with specific start and end dates, and a means of measuring progress and success.

**Management** - The art of getting things done through people.

**Management Actions**

| | |
|---|---|
| Planning | - Directing |
| Organizing | - Controlling |
| Staffing | - (Evaluating) |

**Program** - A series of time-phased projects to achieve a particular objective, commonly three to five-plus years or longer.

## *History of Project Development*

**Project Titanic**

0. (Optional) Get the Equipment
1. Assign Project Due Date and Budget
2. Develop Project Acronym
3. Appoint Project Leader
4. Pick Project Team
5. Develop Project Requirements Document
6. Develop 3-month “Pert” Chart
7. Hire Additional People
8. Have Security (Back-Up)
9. Define Project Requirements (Output)
10. Project Leader Resigns
11. Team Panics
12. Search for the Guilty
13. Punish the Innocent
14. Promotion of the Uninvolved
15. Go to Step #1

## *Laws of project Management*

I. No major project is ever installed on time, within budgets, with the same staff that started it. Yours will not be the first.

II. Projects progress quickly until they become 90 percent complete, then they remain at 90 percent forever.

III. One advantage of fuzzy project objectives is that they let you avoid the embarrassment of estimating the corresponding costs.

IV. When things are going well, something will go wrong
- when things just can’t get any worse, they will

- when things appear to be going better you have overlooked something.

V. If project content is allowed to change freely, the rate of change will exceed the rate of progress

VI. No system is ever completely debugged: Attempts to debug a system inevitably introduce new bugs that are even harder to find.

VII. A carelessly planned project will take three times longer to complete than expected; a carefully planned project will take only twice as long.

VIII. Project teams detest progress reporting because it vividly manifests their lack of progress.

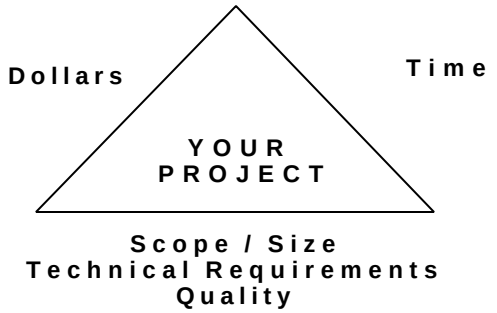
## *Project Roadblocks*

1. List some of the Project Roadblocks encountered by:
   - You
   - Your staff or co-workers
   - Your department or organization
   - Companies like yours within your industry

2. Prioritize the roadblocks you have listed.

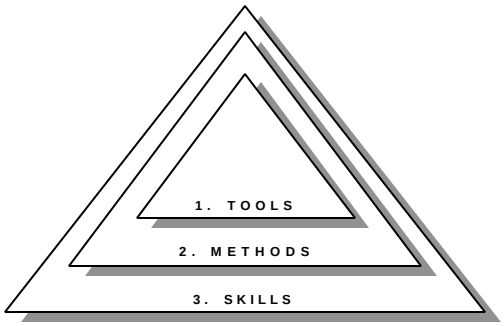
3. Post your list to your web document before the end of the week.

## *Managing the Three Critical Items*




The first question is: Can It Even Be Done??

## *Key Elements*




## *Project Management Tools*

Entities
Work Breakdown Structures
Organizational Analysis
Task Planning Worksheets

Work Responsibility Matrix
Task Cost Accounting
Gantt Charts
Pert/CPM, Flow Diagrams
Resource Allocation
Crashing the Model
Resource Histograms
Planning “S” Curves
Cumulative/Actual Cost Curves

## *Project Management Methods*

Results-Oriented Definition
Project/ Program/ Product Life Cycle
Need: Problem/ Opportunity/ Issue Analysis
Walk-through
Precedence Analysis
Estimating
Management Presentation
Monitoring/Tracking
Project Evaluation

## *Project Management Skills*

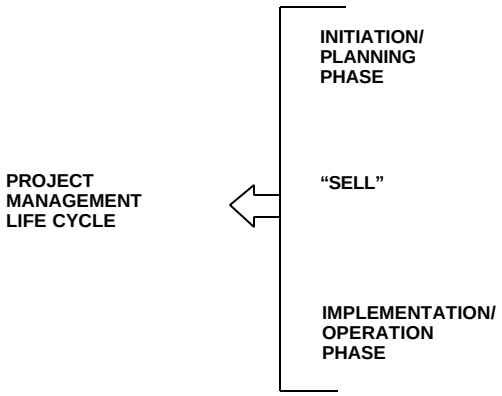
Planning
Problem-Solving
Project Control
Teamwork
Communication
Managing Self
Managing Others
Creativity
Application of Tools and Methods to Specific Projects

## *Introduction Exercise*

You have just received the assignment as PROJECT LEADER of a multi-year project. You have returned to your desk and while putting your thoughts together, what are the questions you must answer?

## *Major Phases of a Project*

There are two major operational phases of a project.




### *Initiation/Planning Phase*

Planning is a critical element of every step of a project. The phase ends with a management presentation and decision. If the project plan is unacceptable to management, then one or more of these three project elements must be altered:

- Project objectives/requirements
- Time requirements
- Estimated cost

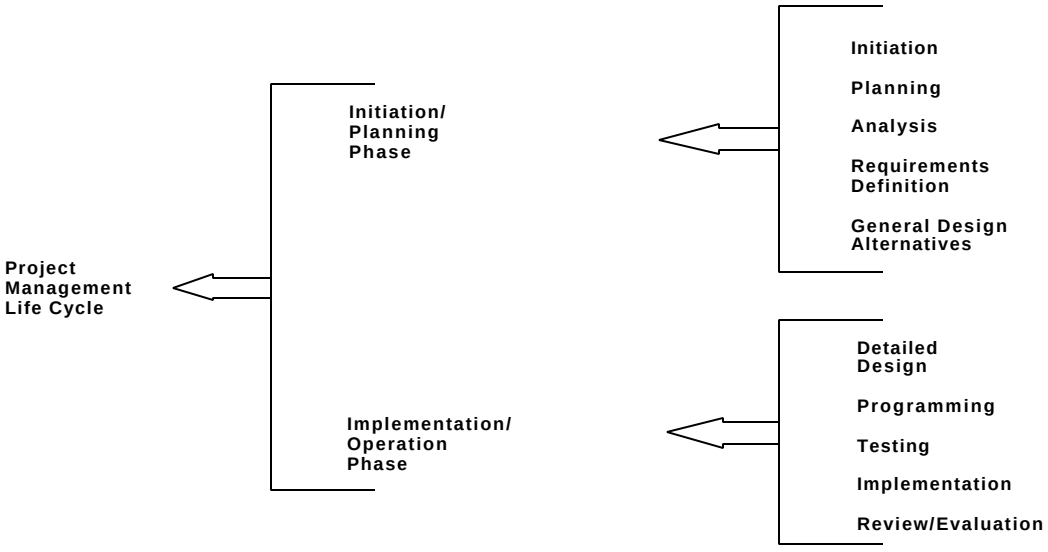
Then, a revised proposal is presented and management makes a "GO - NO GO" decision.

### *Implementation / Evaluation Phase*

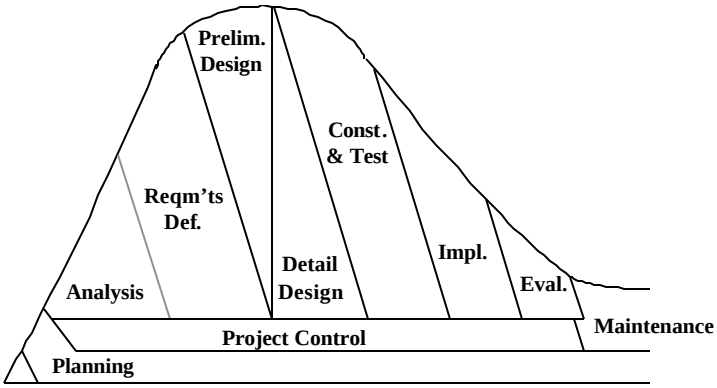
Implementing the Project Plan

### *Project Life Cycle*

The project life cycle involves the sequence of specific steps shown below:




### *Project Life Cycle Phases*




## *Life Cycle Phases*

What are our Systems Development Life Cycle (SDLC) / Systems Development Methodology (SDM) phase names, and what do we do in each phase?

Project Life Cycle Phases

1. Initiation
2. Planning
3. Analysis
4. Requirements Definition
5. General Design Alternatives
6. Detail Design
7. Programming
8. Testing
9. Implementation
10. Review / Evaluation

## *Project Life Cycle Phases*

| Name | What's Done |
|---|---|
| 1. Initiation | Request for Information Services<br>Acknowledge Receipt<br>Log in Project Tracking System<br>Identify Scope and Estimate Cost<br>Steering Committee / User Sets Priority<br>Track Requests and Report Status |
| 2. Planning | Goals and Objectives<br>Define Scope - Who / What<br>Identify Functions / Interfaces |
| 3. Analysis | Define Functions<br>Decompose to Sub-Functions and Processes<br>Identify Existing Files, Reports and Screens |
| 4. Requirements Definition | Define Screens and Reports<br>Define Data Elements<br>Define Timings and Volumes<br>Define Hardware, Software, Data Base, Communication Requirements<br>Define Input / Output File Characteristics |
| 5.General Design | Identify Alternatives for Implementing Solutions |

| | | |
|---|---|---|
| | Alternatives | Described in Requirements Definition<br>Select Best Approach and Recommend |
| 6. Detail Design | | Detail the Approved Design<br>Identify & Define Sub-Systems, Files and Programs<br>Write General Program Specifications |
| 7. Programming | | Design and Code Programs<br>Perform Module and Unit Tests |
| 8. Testing | | System Test Including Test Data Base and<br>Volume Testing<br>User Test<br>Beta Test |
| 9. Implementation | | Training<br>Transfer to Production |
| 10. Review/Evaluation | | Post Implementation Review:<br>Executive Summary and Technical Audit |

## *Different "Types" of Projects and Life Cycle Phases*

Project Types
- Time Duration
- What Needs to be Done

Methodologies of Dealing with Projects
- Dependent on Project Size

## *Your "Types" of Projects and Their Phases*

When we back up and look at the projects in our organizations over time, they fall into "types" or categories with different time spans; for example:

1. Very Small: one week or less; or one month or less
2. Small: a week to a month
3. Medium: a month to three months
4. Etc.....

## *"Types" of Projects*

What "types" of projects do you have? What is the time span or duration per type?

## *Life Cycle Phases*

How might the Life Cycle Phases or steps be "packaged" or combined in each of these types?

## *Ten Basic Management Questions*

The more specifically a project (or task) can be described, the more likely it is to be a success. Ten basic questions must be answered in order to properly describe a project (or task):

1. What is to be done?
2. When will it occur?
3. How much will it cost?
4. Who will do it?
5. What product(s) and/or service(s) will be delivered as a result of the effort?
6. What is the responsibility of both the developer and the user?

7. What determines task completion?
8. Who is responsible for accepting the product as completed?
9. What mechanics will be employed to deal with changes formally?
10. How will actual progress be measured?

## *Define the Required Effort*

Another reason most projects fail is the failure to define the required effort.
In other words:

**THERE IS A LACK OF**
**CLEAR PROJECT DEFINITION**

## *Essential Elements of a Project Plan*

Summary of the project
Work breakdown structure (WBS)
Project master schedule
Activity/event network plan
Key project personnel
Financial plan
Cross impact matrix
Review process

## *Project Life Cycle Phases/Steps*

Systems Development Life Cycle (SDLC)
Systems Development Methodology (SDM)

**REMEMBER:**
If there is a project to be managed, there is a system to be developed and/or maintained. An implemented project is an up and running system.

## *Project Management Deliverables*

There are two types of project deliverables:
Project Management Deliverables
Phase Specific Deliverables

The management deliverables are developed up front (as early as possible) and ride with the project throughout its phases and/or steps. They may include:

- An executive summary of the project
- Goals and objectives
- Cost effectiveness or financial justification
- Risk analysis
- General plan for the project (what phases and projected phase end dates)
- A detailed "next phase plan" including a work plan (work breakdown structure) and a committed time/cost estimate. This is developed at the end of each major phase or step for the phase ahead.

## *Summary*

Definitions
Three Critical Elements
Key Elements
Tools
Methods

Skills
Phases of a Project
Project Life Cycle
Ten Basic Questions
Essential Elements of a Project Plan

## *Project Planning*

Planning is deciding in advance
“What do we do?”
“When do we do it?”
“How do we do it?”
“Who is to do it?”
“How much will it cost?”