

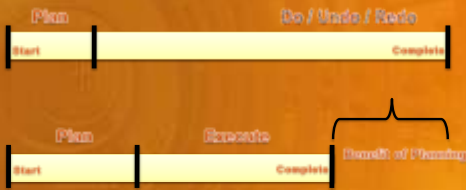
Managing Projects Using Microsoft Project 2007

Agenda

- Introductions
- Setting Workshop Expectations
- Project Management Concepts – (optional)
- What's New in Microsoft Project 2007
- Introducing Microsoft Project 2007 Interface
- Planning Projects With Microsoft Project 2007
- Tasks ,Resources & Cost
- Tracking
- Views and Reports

Project Management Concept

Benefits of Planning



Project-PMBOK® Definition

Project – A temporary endeavor undertaken to create a unique product or service

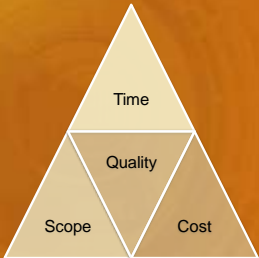
How Temporary?

- Has a definite beginning and end, not an on-going effort
- Ceases when objectives have been attained
- Team is disbanded upon project completion

Unique?

- Product characteristics are progressively elaborated
- The product or service is different in some way from other product or services

Triple Constraint Theorem



Balancing SCOPE, COST and TIME within the frame work of QUALITY, meeting customer expectations

Harold Kerzner

What is Project Management?

The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations

Stakeholder
Individuals and organizations involved in or affected by the project outcome

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Project Manager's Operating Environment

The diagram shows a central blue circle labeled 'The Organization' containing 'Organization Goals', 'Top Management', 'Sponsor', 'Boss', 'Project Manager', 'Project Staff', 'Managers Controlling Internal Resources', 'Colleagues', and 'Internal Users'. This central circle is surrounded by four blue rectangular boxes: 'Government' (top-left), 'Suppliers' (top-right), 'External Users' (bottom-left), and 'Sub Contractors' (bottom-right). Arrows indicate interactions between the central organization and these external entities.

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Process Interaction

The diagram shows five interconnected processes in colored ovals: 'Initiating Process' (black), 'Planning Process' (orange), 'Execution Process' (green), 'Controlling Process' (light blue), and 'Closing Process' (dark blue). Arrows show the flow from Initiating to Planning, Planning to Execution, Execution to Controlling, and Controlling to Closing. There are also feedback loops from Controlling back to Planning and Execution, and from Closing back to Initiating.

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Typical Project Life Cycle

The graph plots five processes against 'Time' from 'Phase Start' to 'Phase Finish'. The 'Initiating Processes' (black) curve peaks early. The 'Planning Processes' (orange) curve peaks next. The 'Executing Processes' (green) curve peaks later and is the highest. The 'Controlling Processes' (light blue) curve peaks around the middle. The 'Closing Processes' (dark blue) curve peaks near the end. The y-axis has an upward arrow.

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Related Endeavors

- **Program** – Consists of a group of projects supporting broad, general goals and managed in a coordinated way
- **Subprojects** – Components of a project that are often contracted out

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Develop the Work Breakdown Structure

The flowchart shows a sequence of steps in yellow boxes: 'Develop WBS', 'Break the Project Down', 'Assign Ownership', and 'Document Completion Criteria'. Above the first step is a small diagram showing a flow from 'Define & Plan Project' to 'Plan the Project' to 'Assign & Execute Project' to 'Close the Project'.

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Define & Organize Project

Plan the Project

Execute & Control Project

Close Out

Work Breakdown Structure (WBS)

A

A1

A2

A3

A1.1

- WBS is a tool for identifying project work
- Hierarchical, logical structuring of project work
- It provides comprehensive Methodology

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Define & Organize Project

Plan the Project

Execute & Control Project

Close Out

WBS Decomposition

Team should be involved to:

- Identify 4-7 major components of work (how you will manage work)
- Identify Level 2 tasks for each grouping
- Repeat the process until a task has:
 - One owner (may be multiple doers)
 - Clear deliverable
 - 2-20 days duration
 - Credible estimate of duration
 - Ability to be tracked

A

A1

A2

A3

A1.1

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Define & Organize Project

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Close Out

Remember to include

Task related with following:

- Planning activities for the project
- Approval cycle
- Key project meetings
- Management/customer interfaces
- Quality inspections/fixing defects
- Training
- Project management
- Test planning, development and execution
- Project reviews and project closing

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Close Out

WBS- Bottom-up

Team Effort:

- Brainstorm all tasks
- Organize tasks into 4-7 major groupings reflecting how the project will be managed

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Define & Organize Project

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Execute & Control Project

Close Out

Level of Detail

Project is broken down to the level of desired tracking

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WBS Example

Identify Requirements

Design System

Prototype System

Pilot System

Full Scale System

Assess what Before System

Identify Requirements

Design System

Prototype System

Pilot System

Full Scale System

Assess what Before System

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Close the Project

Assign Ownership

Task Ownership

Multiple Owners = 0 owners

- 1 owner per task
- Owner responsible for planning and managing task
- Owner may or may not be a doer

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Define & Organize the Project

Plan the Project

Execute & Control the Project

Close the Project

Responsibility Matrix

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Develop The Preliminary Schedule

Develop the Schedule

Determining Logical Dependency

Approximate Duration

Analyze Network

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Network Development

Precedence Diagramming Method

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Milestones

No Duration or Work

- Start/Finish
- Significant Events (Example- Conference)
- External dependencies/ deliverables
- Major Accomplishments
- Phase Signoffs
- Intermediate Checkpoints
- Status reporting periods

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Define & Organize the Project

Plan the Project

Execute & Control the Project

Close the Project

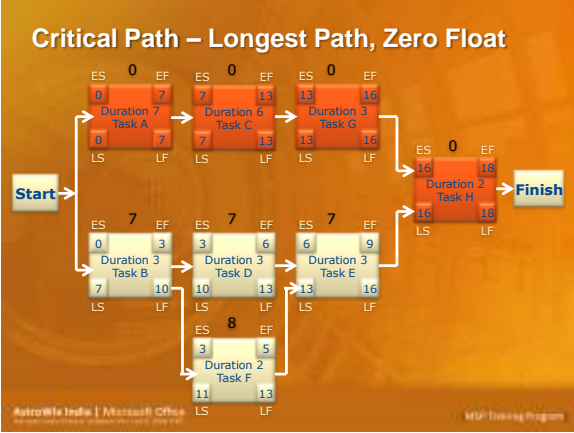
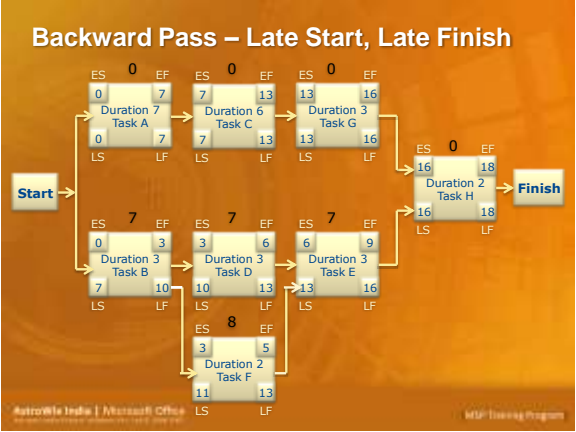
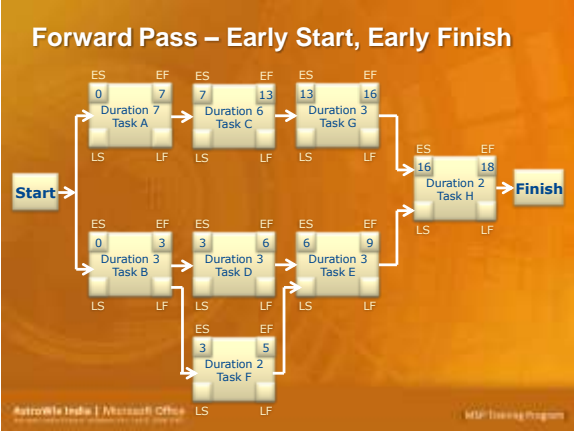
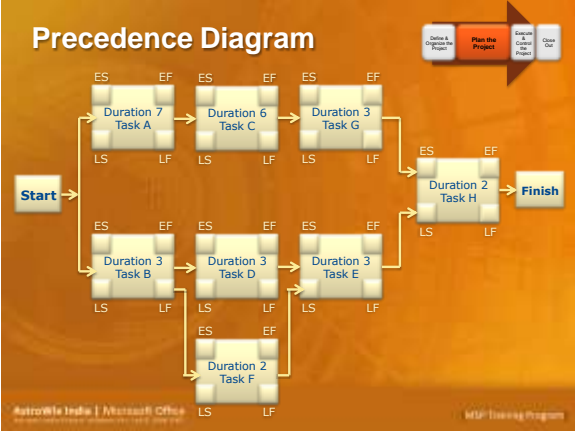
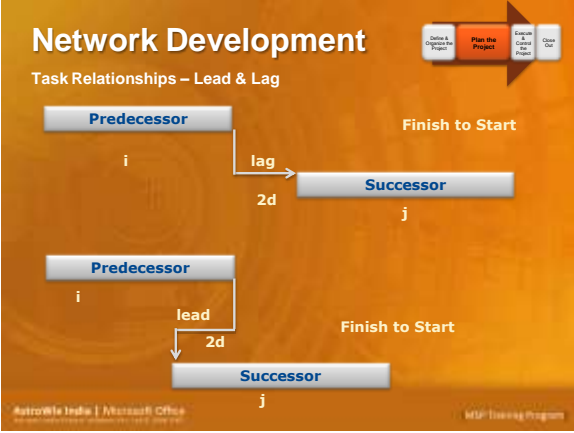
Network Development

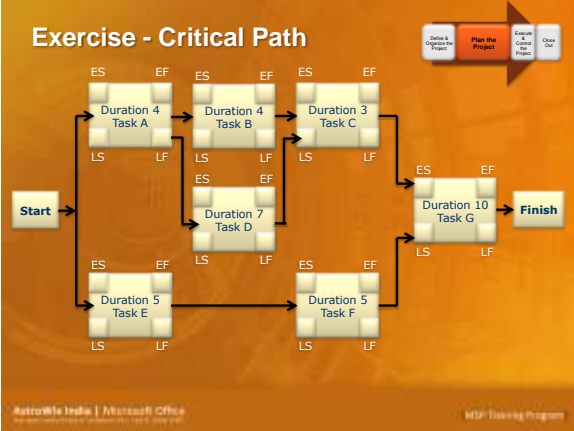
Task Relationships

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Approve & Set the Project Baseline Plan

Baseline

- Snapshots of approved plan
- Establishes a target
- Provides something to measure progress against
- Makes project goals visible

Approve & Set the Project Baseline Plan

Definition

- The baseline is the plan against which all project progress will be measured
- The baseline is set at the end of the planning phase

Approve & Set the Project Baseline Plan

Process

- Communicate the setting of the baseline to all groups that are impacted
- Distribute approved plans and supporting assumptions in accordance with project framework decisions
- Archive a copy of the schedule and resource plans along with the assumptions
- Ensure that any contracts with suppliers and customers are consistent with the baseline

Approve & Set the Project Baseline Plan

Changing the Baseline

- Once set, it should not be easily changed
- The baseline plan can only be changed after:
 - Major events which cause change have been identified and communicated
 - Impact of changes has been approved

Track & Manage the Project

Benefits of Tracking

- Provides clear indication of progress
- Keeps everyone informed
- Encourages the addressing of problems
- Provides credible completion estimates

Data Collection

Define & Scope the Project

Plan the Project

Execute & Control the Project

Close Out

- 3 Key Questions
 - Did the task start?
 - If yes, on what date?
 - What date will the task finish?
 - If finishes on what date did it finish?
- 2-3 week window
 - Usually less than 15 tasks per status period
- Low-key, unintrusive status collection!

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Status Collection Methods

Define & Scope the Project

Plan the Project

Execute & Control the Project

Close Out

Reports

Meeting

E-Mail

Planning Support

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Identify Variances


Define & Scope the Project

Plan the Project

Execute & Control the Project

Close Out

- Variances is the difference between plan and actual
- Projects slip one day at a time



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Identify Variances

Define & Scope the Project

Plan the Project

Execute & Control the Project

Close Out

Schedule Variances

- New activities on the critical path
- Changes in milestone dates or the end date of the project
- Reductions or increases in float for upcoming activities
- Slips in the schedule of particular groups of activities

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Identify Variances

Define & Scope the Project

Plan the Project

Execute & Control the Project

Close Out

Resource Variance

- Investments of more time than planned
- Not investing enough time to get the task done on schedule
- Conflicting requirements for common resources (now and in the future)

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Identify Variances

Define & Scope the Project

Plan the Project

Execute & Control the Project

Close Out

Scope Variance

- Deliverables not meeting or exceeding specs
- Deliverables not meeting or exceeding quality requirements

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Earned Value – Variance Analysis

- Schedule Variance:
 $SV = EV - PV$ (or $BCWP - BCWS$)
- Cost Variance:
 $CV = EV - AC$ (or $BCWP - ACWP$)
- Schedule Performance Index:
 $SPI = EV / PV$ (or $BCWP / BCWS$)
- Cost Performance Index:
 $CPI = EV / AC$ (or $BCWP / ACWP$)

Save Status Information



- Purpose**
- Provides new team members or new project manager taking over an ongoing project with valuable information
 - Summarizes adaptive actions taken to date

Conduct a Closeout Review



- Purpose**
- A close out review should highlight both what went right and what went wrong
 - Both are essential for continuous improvement
 - Exploit the successes and identify the elements which contributed to the success
 - Avoid the problems in the future and identify processes that need to be defined, redefined and improved
 - Key Learning's can be valuable for the next project

Close the Project File



- Process**
- Complete all final review documents
 - Bundle similar reports, if possible (all status reports) and label the bundle
 - Facilitates later research
 - Helps ensure that individual papers aren't lost
 - All files should be sent to Administration for storage
 - Ensuring that the files are stored properly and is the project managers responsibility

Basic Equation and Table relating to Work, Duration and Units

Work = Duration x Units			
Field that you change	Field that is recalculated if the task is Fixed Units	Field that is recalculated if the task is Fixed Work	Field that is recalculated if the task is Fixed Duration
Work	Duration	Duration	Units
Duration	Work	Units	Work
Units	Duration	Duration	Work

Comparison between Effort Driven and Non Effort Driven Tasks

		Assign new Resources	Remove Resources
Fixed Duration	Effort Driven	Units Per Resource go DOWN	Units Per Remaining Resources go UP
	Non Effort Driven	Work goes UP	Work goes DOWN
Fixed Units	Effort Driven	Duration goes DOWN	Duration goes UP
	Non Effort Driven	Work goes UP	Work goes DOWN
Fixed Work		Duration goes DOWN	Duration goes UP

W = D * U

D

U

FIXED

W

D

W

FIXED

U

(DEFAULT)

W

U

FIXED

D

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