

# TOTAL SYSTEMS EDUCATION, LTD.

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TSE001P

## PROJECT PLANNING AND CONTROL *(The Foundations of Project Management with Microsoft Project)*



### Course Description

Managing a project carries complex concerns, not always found in traditional management. This workshop enables participants to learn and practice the tools and techniques needed in the Project Manager/Leader roles. The *Best Practices* for negotiation; communication; risk management; change management; and coordination between the Project and Management, Clients/Users, Team Members and Support Groups are covered in great detail. The course enables participants to identify and execute appropriate planning, organizing and controlling steps for projects, while ensuring *Quality*, the first time.

*This program is for anyone working in or managing a portion or entire project in an organization (hierarchy, matrix or global task force), with shared or part-time resources, **all** with shifting priorities!*

Upon completion, participants involved with PMI® and the Project Management Institute's Project Management Professional (PMP) program, are awarded 32 PDUs or "Contact Hours". Our PMI REP Code is 1270. Also, as approved through the Continuing Professional Competency (CPC) program, and certified by the Practicing Institute of Engineers, Professional Engineers (PEs) are awarded 24 PDHs.

Upon completion of this course, each participant will be able to:

- ◆ Develop Project and Phase Plans;
- ◆ Estimate work effort, resources and schedule for successful completion of a Project;
- ◆ Negotiate with support groups; make staff assignments and schedules for Effective utilization of project resources;
- ◆ Understand the management issues and techniques needed in Cross Functional-Task Force, Matrix and Hierarchy project teams. Delegate work, and motivate and facilitate professional and personal growth;
- ◆ Apply the concepts of *Quality* and Six Sigma in the real-world project environment;
- ◆ Implement a Change Management and reporting plan;
- ◆ Track and Report the status of the project and deliverables for early problem identification and resolution;
- ◆ Identify and Plan to mitigate Project and Product Risk factors;
- ◆ Understand and Employ *Product Scope* and *Quality Management*;
- ◆ Understand and use of Microsoft Project to help Plan, Organize, Schedule, Control, Track and Report projects.

Instructional methods for this four-day workshop are lecture, discussion, detailed case study workshops and presentations. The **fourth day** of this session is designed to teach and provide hands-on practice of Microsoft Project (*Details of this day, follow this outline.*) Upon request we also include references to the PMI® PMBoK (Project Management Body of Knowledge), CMM (*Capability Maturity Model*), Six Sigma, in-house Standards and Policies, and ISO9000.



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### Course Outline

#### I. Introduction and Course Objectives

#### II. Project Management Concepts

- A. Process vs. Project Management
- B. Project Characteristics
- C. Blueprint for Effective Project Management
- D. The Project Manager's Responsibilities
  - 1. Establishing Success Factors
  - 2. Objectives / CBA
  - 3. Critical Communications / Negotiations / Stakeholders
    - a. management
    - b. team members
    - c. users / clients
    - d. support groups / interfacing projects
  - 4. Managing the Total Systems Pentagon  
*(People, Time, Budget, Technology and Scope)*
- E. Proactive Project Management  
*(and the Rules we live by!)*
- F. The Role and Impact of PMI® the Project Management Institute

#### III. Project Planning

- A. Planning Responsibilities
  - 1. The Work Plan
  - 2. The Organization and Staffing Plans
  - 3. The Execution, Control and Tracking Plans
  - 4. The Scope Management -- Change Control Plan
- B. Establishing the Work Plan
  - 1. Product Definition (Deliverables)
  - 2. Work Breakdown (WBS) / Task Definition
  - 3. Project Risk Management
  - 4. Selecting Product Development Tools (Quality Management)
  - 5. Dependency Diagramming (Network, PERT & CPM) Mechanics
  - 6. Gantt Charts (Schedule) and Microsoft Project
- C. Schedule Estimating (Base Work Effort) -- Project Time Management
  - 1. Estimating Methods *(Good and Bad!)*
    - a. bulk, SWAG and Delphi (Wideband)
    - b. consensus
    - c. PERT formula / ratios
    - d. historical comparative
  - 2. Function Point Analysis and Software Aids
  - 3. Real World, Estimate Loading Factors and Justification
    - a. environmental
    - b. staffing
- D. Now we have a plan, What do we do with it?
- E. Pushing Microsoft Project to help with Planning
- F. Packaging the Work Plan
- G. Making a Management Presentation and Gaining Approval



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## PROJECT PLANNING AND CONTROL

*(The Foundations of Project Management  
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### Course Outline Con't.:

#### IV. Scope Management -- Project Change Control

- A. Planning for Change - *Staying Proactive*
- B. Objectives of a Change Control Plan
- C. Establishing the Change Request Policy
  - 1. Initiation of the Request and *Determining its priority*
  - 2. Evaluating the Request (and by Whom)
  - 3. Recommendations and Decisions
  - 4. Allowing Appeals
- D. Change Control Metrics
  - 1. As a Productivity Measure
  - 2. As a Quality Measure
  - 3. As Input to a Redevelopment Effort

#### V. Project Organizing and Managing the Team – Schedule and Resource Management

- A. The Project Manager as a Manager - The Responsibilities
- B. Steps in Assigning and Scheduling the Team
  - 1. Creating a Skill/Knowledge Matrix
  - 2. Activity and Personnel Assignments
  - 3. Career Path Planning
- C. Using the Critical Path Method (CPM)
  - 1. Very Important Dates
  - 2. Who is/should be, assigned to the Critical Path?
  - 3. The Critical Path as a Motivator
- D. Roles and Responsibilities
- E. Load Leveling the Assignments with Microsoft Project
- F. Developing “Plan B” and Developing “Outside the Box” Solutions
- G. Establishing Project Team Procedures and Communications
  - 1. Internal / External / Clients
  - 2. Management
  - 3. Support Groups
- H. Project Team Structures and Issues - The Options
  - 1. Hierarchy
  - 2. Matrix
  - 3. Cross Functional -- Task Force
- I. Managing and/or Working in a Matrix or a Cross Functional Task Force
- J. Multiple Projects and Shared and Borrowed Staff  
*(The Real fun begins!)*
- K. Used Properly, Microsoft Project will Help
- L. Communications Management -- The Status Reporting Plan
  - 1. Selecting the proper format  
*(Meeting and/or Reports)*
  - 2. Frequency
  - 3. Responsibility
  - 4. Doing it the Right Way



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## PROJECT PLANNING AND CONTROL *(The Foundations of Project Management with Microsoft Project)*

### Course Outline Con't.:

#### VI. Project Execution and Control

- A. Control Objectives
- B. Identifying and Using the Progress Control Tools
- C. Developing a Progress Reporting Plan  
*(What you should Track, and shouldn't!)*
  - 1. Completions, Starts and Work Effort
  - 2. Estimates **TO** Complete
  - 3. The True Meaning of Percent Complete *(and the 90% Complete Syndrome!)*
  - 4. Budget Tracking and Control
  - 5. The Myth of the "Man-Month"
  - 6. What YOU Need to know ASAP, and HOW
- D. Controlling your Support Groups and Extended Team
  - 1. Status Meetings that Control
    - a. planning and running the meeting
    - b. reporting to management
    - c. gaining support and commitment
  - 2. Control an the "Task Force Project"
- E. Product Quality, Six Sigma™ and ISO9000  
*(Building and Measuring)*
  - 1. Development tools for Quality and Success
  - 2. Error prevention, detection and correction techniques
  - 3. The Importance of Metrics
- F. Productivity Tools and Measurements
- G. How Microsoft Project can Help you Control the Project  
*(Increasing the Project Manager's Productivity,  
Control and Reporting Capabilities)*
- H. Replanning - When to Change,  
Who to Tell, and How
  - 1. What are the options / alternatives?
  - 2. Making the right decisions
- I. Escalating Issues to Management  
*(How to avoid - "Shoot the Messenger!")*

#### VII. Conclusion

- A. Project Closure and the Post Project Review
- B. Implementation Plan for Projects
  - 1. New Projects (Big and Small)
  - 2. Maintenance Efforts
  - 3. Joining a Project  
"already in progress"
- C. Exercise: *"Identify Internal Issues which may Impede Project Success"*  
Process: *"What Participants can do to Resolve the Issues"*
- D. Review Major Topic/Objectives
- E. The Global Benefits of PMI® and your Local PMI Chapter
- F. Participants Critique Class



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## MICROSOFT® PROJECT WORKSHOP (DAY 4 OF PP&C)



### Module Description:

This workshop is the fourth day of PP&C. It assists participants gain ability and speed in the use of MICROSOFT® Project. *This is not a “button pushing” class.* The workshop addresses those areas within a project, where the package helps the Project Manager and team members Plan, Organize, Track and Control a project, its schedules, estimates, deadlines, costs and associated resources.

Prior knowledge and use of Microsoft Windows is required. If participants already use Microsoft Project, this workshop will truly enhance their future MSP experiences!

Upon completion of the course, participants will be able to:

- ◆ Understand the Capabilities and Limitations of Microsoft Project in the “*Real World*” Project Environment;
- ◆ Learn how to set up MS Project to reflect the current project environment;
- ◆ Define Tasks and key Task Information;
- ◆ Create various types of Dependencies between tasks;
- ◆ Implement the WBS to Roll-up and Drill-down the project to any level of detail;
- ◆ Using the Network Diagram, verify and adjust task dependencies to ensure accuracy in later scheduling;
- ◆ Define and Assign *Full-time* and *Part-time* Resources;
- ◆ Identify Resource Conflicts, then Analyze and Resolve them using various methods;
- ◆ Track Task Duration and Work Effort for the “in-progress” Project;
- ◆ Use multiple MS Project Report features;
- ◆ Format MS Project to convey necessary information to concerned Stakeholders;
- ◆ Use predefined filters and sorts, and Design and Create Customize Filters, Groups, Sorts, Tables, Reports and Views;
- ◆ Know about Advanced Features including: HTML; Dynamic links to Excel; Object Linking and imbedding; Hyperlinks to other software;
- ◆ Use MS Project to Manage Multiple Projects for Linking, Tracking and Impact Analysis;
- ◆ Manage Multiple Projects using Shared Resources, Identify and ultimately resolve Resource Conflicts.

Instructional methods for this program include lecture, discussion, question and problem sessions, and *extensive* hands-on exercises using Microsoft Project. (*For those currently using PROJECT, additional time is spent discussing and using advanced topics and features.*) All participants receive the course workbook, handouts and a CD containing sample files for on the job reference.



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## MICROSOFT® PROJECT WORKSHOP (DAY 4 OF PP&C)

### Module Outline:

- I. INTRODUCTION
- II. AS YOU BEGIN USING *PROJECT*
- III. PROJECT SETUP
- IV. TASKS AND INPUT METHODS
- V. DEPENDENCIES
- VI. THE NETWORK DIAGRAM
- VII. WORK BREAKDOWN STRUCTURE
- VIII. PROJECT RESOURCES
- IX. ASSIGNING RESOURCES
- X. PRE-DEFINED FILTERS, SORTS AND GROUPS
- XI. BASELINE and THE PROJECT
- XII. MS PROJECT REPORTS
- XIII. FULL-TIME PROJECTS WITH A PART-TIME STAFF
- XIV. IDENTIFYING & RESOLVING RESOURCE CONFLICTS
- XV. TRACKING THE PROJECT (Including Resource Work)
- XVI. FORMATTING THE PROJECT
- XVII. CUSTOMIZING MICROSOFT PROJECT
- XVIII. ADDITIONAL FEATURES
- XIX. CONCLUSION

