

Course Syllabus

Mastering Advanced Project Management Techniques using Microsoft Project 2003

Course Overview

Designed for the advanced user or serious novice, this course teaches techniques for using Microsoft Office Project 2003 pertinent to managing complex projects in mature project management environments. In this course, the special emphasis is on “explaining the mysteries” that often arise with the software, and adding depth and mastery to your software skills.

Target Audience

This course is intended for experienced users of Microsoft Project 2003 who are faced with managing complex projects and work in an organization that demands advanced project management maturity.

Pre-Requisites

Students electing this course should first successfully complete the Establishing a Project Management Foundation using Microsoft Project 2003 course. In lieu of this requirement, students *must have* significant experience using Microsoft Project in all stages of the project life cycle, including defining, planning, executing, and closing a project, along with a high level of proficiency in using the Microsoft Project scheduling engine.

Learning Objectives

After completing this course, you will be able to:

- Use standard fields in custom Views, Tables, Filters, and Groups
- Control the project schedule using custom calendars
- Manage project risks using PERT Analysis
- Understand the “inner workings” of the Microsoft Project Scheduling Engine
- Use work contours to control the schedule of resource assignments
- Use an administrative project to capture non-project time

- Determine the Critical Path in a project
- Define and use custom fields in custom Views, Tables, Filters, and Groups
- Create and use a master project

Topical Outline

Module 1: Advanced Use of Standard Fields

Microsoft Project Data Model
Understanding Fields
Using Fields with Tables, Filters, and Groups
Using Standard Fields in Tables
Using Standard Fields in Filters
Using Standard Fields in Groups
Create a New View Using the 4-Step Method

Module 2: Advanced Calendars and Scheduling

Calendar Types Review
How Calendars Control the Project Schedule

Module 3: Managing Schedule Risk Using PERT Analysis

What is Risk Management?
Using a Risk Management Plan
Risk Identification
Risk Quantification
Risk Response Development
Risk Monitoring and Control
Managing Schedule Risk in Microsoft Project 2003
Using PERT Analysis
Adding Lag Time on Task Dependencies
Increasing the Work or Duration

Module 4: Mastering the Scheduling Engine

The Duration Equation
Reviewing Task Types
Understanding Programming Biases
Reviewing Effort Driven Scheduling
Comparing Task Duration vs. Task Scheduling

Module 5: Advanced Resource Scheduling

Understanding Work Contours and Assignment Views

Using the Task Usage View

Using the Resource Usage View

Viewing the Assignment Information Dialog

Applying Work Contours for Assignment Scheduling

Using Work Contours: An Example

Using Resource Assignments in Administrative Projects

Module 6: Critical Path Analysis

What is the Critical Path?

Identifying the Critical Path in a Project

Understanding Slack and the Critical Path

Understanding Late Start, Late Finish, and the Critical Path

Analyzing Nearly Critical Tasks

Constraints, Deadline Dates, and the Critical Path

Module 7: Leveling Resource Overallocations

What is Resource Overallocation?

What is Leveling?

Using a Leveling Methodology

Determine IF an Overallocation Exists

Determine WHERE an Overallocation Exists

Determine WHETHER You Need to Level the Overallocation

Methods for Leveling Overallocations

Leveling with Microsoft Project 2003

Microsoft Project 2003 Leveling Options

Leveling Calculations Options

Leveling Range Options

Resolving Overallocations Options

Leveling Order

Additional Leveling Options

Restricting Resource Leveling

Using the Can Level Field

Using the Task Priority Field

Module 8: Defining and Using Custom Fields

Overview of Custom Fields

Defining Custom Fields

Using a Value List in a Custom Field

Using a Formula in a Custom Field

Using Graphical Indicators in a Custom Field

Defining Custom Outline Codes

Deleting a Custom Field or Outline Code

Creating a Custom Filter

Module 9: Using Master Projects

What is a Master Project?

Creating a Master Project

Using an Alternate Method to Create a Master Project

Using the Inserted Project Information Dialog

Setting Cross Project Dependencies

Viewing External Dependencies

Setting Cross Project Linking Options