

55201-Microsoft Project 2016 Managing Projects

Module 1: General Information about Microsoft Project. Project life cycle.

In this module, you will learn how the concept of “project” is defined in the international project management standard PMBOK® Guide, how Microsoft Project develops from version to version, what products does Microsoft Enterprise Project Management Solution (EPM) consist of, How to use Microsoft Project to automate project management at different phases of the project life cycle. Also in this module you will learn what the interface of Microsoft Project 2016 looks like, what controls are available to the user, how the interface is configured, what are the ways to create a project file, and in what formats you can save the file in Microsoft Project.

Lessons

- 1.1. Project management:
 - 1.1.1. What is a project?
 - 1.1.2. Project life cycle
- 1.2. Microsoft Project:
 - 1.2.1. Microsoft Project History
 - 1.2.2. Product Structure: Versions and Revisions
 - 1.2.3. Automation of project management, programs and project portfolios
 - 1.2.4. Application interface
 - 1.2.5. Methods for creating a file in Microsoft Project

Lab 1: Configuring the Microsoft Project interface

- Creating and saving a project file
- Tab Setup on the Ribbon
- Customize Quick Access Toolbar
- Change column heading

Module 2: Development of the project charter.

In this module you will learn what are the main limitations of the project, how they affect the planning of the project, in what dialog boxes they are set.

Lessons

- 2.1. Project management:
 - 2.1.1. Project Goals
 - 2.1.2. Requirements and limitations of the project
 - 2.1.3. Summary schedule of control events
- 2.2. Microsoft Project:

- 2.2.1. Total Project Task
- 2.2.2. Project Information
- 2.2.3. Change in working hours
- 2.2.4. Project Settings
- 2.2.5. Milestones of the project
- 2.2.6. Deadline
- 2.2.7. Budget Restriction
- 2.2.8. Project shift

Lab 1: General information and project limitations

- Displaying the total project task
- Working with the Project Information dialog box
- Working with the Modify Working Time dialog box
- Work with the Options dialog box

Module 3: Creating an IMR and Defining Operations.

In this module you will learn how to plan a hierarchical composition of work on a project, how to manage a hierarchy of tasks.

Lessons

- 3.1. Project management:
 - 3.1.1. Decomposition
 - 3.1.2. Hierarchical Work Structure
 - 3.1.3. WBS Dictionary
 - 3.1.4. List of operations
- 3.2 Microsoft Project:
 - 3.2.1. Add, edit, delete tasks
 - 3.2.2. Task Mode: Automatic Planning and Manual Planning
 - 3.2.3. Hierarchy:
 - Display the number in the structure
 - Change code SDR
 - Filter by structure level
 - 3.2.4. Creating repetitive tasks

Lab 1: Project Content

- Creating an SRI project
- Adding project milestones
- Display the number in the structure
- Change code SDR
- Adding a Repeating Task

Module 4: Determining the sequence of operations.

In this module, you will learn how the chronological sequence of project tasks is determined, what types of task dependencies are supported in Microsoft Project, how ahead and delays are applied.

Lessons

- 4.1. Project management:
 - 4.1.1. Types of dependencies
 - 4.1.2. Advances and delays
 - 4.1.3. Rules for developing a network project diagram
- 4.2. Microsoft Project:
 - 4.2.1. Add, edit, remove dependencies
 - 4.2.2. Use lag
 - 4.2.3. Task path: analysis of the logical structure of the project
 - 4.2.4. Observe the connections of manually scheduled tasks.

Lab 1: Project Network Diagram

- Setting Task Dependencies
- Add delay
- Using the Task Path function
- Observe the connections of manually scheduled tasks.

Module 5: Resource Assessment Operations.

In this module you will learn how to create a list of necessary resources for a project, what types of resources are supported in Microsoft Project, how properties of all types of resources are configured, how to set up several tariff rates for a labor or material resource, how to set up a work schedule for a labor resource, how to set units of measure of the material.

Lessons

- 5.1. Project management:
 - 5.1.1. Types of project resources

- 5.1.2. Resource units
- 5.2. Microsoft Project:
 - 5.2.1. Resource sheet
 - 5.2.2. Resource Information: Calendar, Units, Table of Rate Standards

Lab 1: Configure project resources

- Creating a list of project resources
- Setting up a calendar for the workforce
- Setup of Units and Tables of norms of expenses for labor and material resources
- Setting up Charges for labor, material and cost resources

Module 6: Assessment of the duration of operations. Cost estimate.

In this module, you will learn how to create assignments of labor, material and cost resources for tasks, estimate the duration of tasks and a project, estimate the cost of tasks and a project, set deadlines for tasks planned manually, solve conflicts of project calendars, tasks and resources.

Lessons

- 6.1. Project management:
 - 6.1.1. Assessment of the duration of operations: Tools and methods
 - 6.1.2. Cost Estimation: Tools and Techniques
 - 6.1.3. PERT analysis
- 6.2. Microsoft Project:
 - 6.2.1. Duration units and project currency
 - 6.2.2. Creating appointments
 - 6.2.3. Aggregated and time-based data on labor costs and cost
 - 6.2.4. Planning Formula: Duration, Volume, and Labor
 - 6.2.5. Priorities for project calendars, tasks and resources

Lab 1: Setting and calculating the duration and cost of tasks

- Assigning costly resources to tasks
- Assigning material resources to tasks
- Assigning workforce to tasks
- Evaluation of aggregated and time-based assignment data

Module 7: Scheduling. Critical path method.

In this module, you will learn how when planning projects the critical path method is used, how task constraints affect the critical project path, which schedule compression methods are used to optimize the project schedule.

Lessons

- 7.1. Project management:
 - 7.1.1. Project Network Planning Method
 - 7.1.2. Free and general time reserve of tasks
 - 7.1.3. Critical path of the project
 - 7.1.4. Schedule compression methods
- 7.2. Microsoft Project:
 - 7.2.1. Network diagram
 - 7.2.2. Formatting critical tasks
 - 7.2.3. Free and general time reserve of tasks
 - 7.2.4. Subcritical tasks
 - 7.2.5. Calculation of the critical path for each independent network of tasks
 - 7.2.6. Negative general time reserve: task limits
 - 7.2.7. Reduction of the project time

Lab 1: Project Management on a Critical Path

- Display of critical tasks and time reserves
- Modifying task constraint
- Schedule compression

Module 8: Scheduling. Alignment of resources.

In this module, you will learn how workforce availability is estimated and displayed, how the Visual Resource Optimizer is used, how resource load balancing is performed, how automatic leveling is configured and interpreted, and what methods of manual load balancing are available to the user.

Lessons

- 8.1. Project management:
 - 8.1.1. Labor shortage
 - 8.1.2. Principles of resource load balancing
- 8.2. Microsoft Project:
 - 8.2.1. Analysis of resource overload:

- Resource Graph
- Resource usage
- Visual Resource Optimizer
- 8.2.2. Automatic leveling:
 - Adjustment of alignment parameters
 - Task Priorities
 - Leveling delay of the task and delay of the start of the assignment
 - Analyzing and clearing alignment results
- 8.2.3. Manually change resource assignment:
 - Increased availability
 - Reduced load
 - Replacing a resource

Lab 1: Resource Load Balancing

- Estimation of resource availability
- Perform automatic load balancing
- Alignment analysis
- Increase resource availability
- Replacing a resource

Module 9: Determining the Budget. Project risk management.

In this module, you will learn how a project is budgeted, how time and cost reserves are created.

Lessons

- 9.1. Project management:
 - 9.1.1. Restriction of the project on use of resources
 - 9.1.2. “What-if?” Analysis
 - 9.1.3. Time reserve
 - 9.1.4. Project budget: cost reserves
- 9.2. Microsoft Project:
 - 9.2.1. Budget Resource, Budget Work and Budget Cost
 - 9.2.2. Inactive tasks
 - 9.2.3. Task “Project Buffer”
 - 9.2.4. Fixed costs

Lab 1: Basic Project Schedule

- Creating a budget resource
- Setting the Budget Cost by Project Periods
- Analyzing an Alternative Scenario Using an Inactive Task
- Time reserve creation
- Creating reserves at cost using Fixed costs

Module 10: Monitoring and managing project work.

In this module, you will learn how to set the base project plan, how you can set the actual data for the project.

Lessons

- 10.1. Project management:
 - 10.1.1. Collection of actual data on tasks and assignments
 - 10.1.2. Forecast of remaining tasks and assignments
- 10.2. Microsoft Project:
 - 10.2.1. Gantt chart with tracking
 - 10.2.2. Date of Status Report and Progress Line
 - 10.2.3. Project Baseline
 - 10.2.4. Updating and rescheduling tasks and assignments

Lab 1: Planned and actual project data

- Customize Gantt Chart View with Tracking
- Setting the Baseline Project Plan
- Update project on date of status report
- Deviation on the fact and forecast
- Using time-based method to assess progress

Module 11: Schedule Management. Cost management.

In this module, you will learn how to present analytical information in the course of project implementation using Microsoft Project tools, how indicators of variance analysis and volume method are interpreted, and how project reports are generated.

Lessons

- 11.1. Project management:
 - 11.1.1. Schedule Management: Deviation Analysis
 - 11.1.2. Cost Management: Earned Value

- 11.2. Microsoft Project:
- 11.2.1. Deviation Indicators: End Deviation and Cost Deviation
- 11.2.2. BSZR, BSVR, FSVR, OKP, OPS, IOKP, IOS, PEPZ, PEV
- 11.2.3. Project Reports

Lab 1: Project Status Report: Analytics and Forecast

- Assessment of project progress in terms of utilized
- Setting Physical% Complete
- Export Visual Report to Excel
- View Project Report

Module 12: Implementing General Change Management.

In this module, you will learn how using Microsoft Project to make changes in the scope of work or in the composition of project resources, how to update the basic project plan.

Lessons

- 12.1. Project management:
- 12.1.1. Change request
- 12.1.2. Problem log on the project
- 12.2. Microsoft Project:
- 12.2.1. Changing the scope of work
- 12.2.2. Change in the composition of resources
- 12.2.3. Time use
- 12.2.4. Use of reserve at cost
- 12.2.5. Basic Plan 1-10

Lab 1: Change Management

- Delete task
- Add task
- Replacing a resource
- Baseline Update

Module 13: Completing the project. Assets of organization processes.

In this module, you will learn how custom elements are created: custom fields, graphical indicators, tables, groupings, filters, views, how the presentation is formatted, how tasks are documented, how project templates are created.

Lessons

- 13.1. Project management:
 - 13.1.1. Lessons learned
 - 13.1.2. Project Documentation Archive
- 13.2. Microsoft Project:
 - 13.2.1. Setting up global template elements:
 - Custom fields
 - Tables, groups, filters
 - Representation
 - 13.2.2. Formatting Views:
 - Text elements
 - Graphic elements
 - 13.2.3. Documenting: adding a note, document, hyperlink
 - 13.2.4. Save the project template

Lab 1: Setting up a global template

- Creating Custom Fields
- Creating a custom spreadsheet
- Filter Setting
- Creating a View
- Formatting a Custom View

Module 14: Collaborating on Projects. Management of programs and project portfolios.

In this module, you will learn how to set up printing of views, how to adjust the project timeline, how to compare project versions, what joint project management methods are used in the local edition of Microsoft Project.

Lessons

- 14.1. Project management:
 - 14.1.1. Project Communication Management
 - 14.1.2. Programs and project portfolios
- 14.2. Microsoft Project:
 - 14.2.1. Password to view and edit the project file
 - 14.2.2. Printing Project Data
 - 14.2.3. Creating a PDF / XPS file

- 14.2.4. Copying a picture, creating a GIF file
- 14.2.5. Export / import data to / from Excel
- 14.2.6. Timeline: setting road maps of the project
- 14.2.7. Comparing project versions
- 14.2.8. Main project and subprojects
- 14.2.9. Resource pool
- 14.2.10. Project Server / Project Online

Lab 1: Resource Pool

- Create Resource Pool File
- Creating Pula client files
- Connecting Clients to the Resource Pool
- Automatic resource load balancing