

*eBooks on desktop editions/versions
(Standard/Professional 2010 and later)*

Understanding Initial Assignments

in Microsoft® Office Project

by Examples

Ismet Kocaman

© Ismet Kocaman

Notice of Rights

All rights reserved. No part of this eBook may be reproduced, stored in a retrieval system or transmitted in any form or by any means, without the prior written permission of the author.

Notice of Liability

Every effort has been made to ensure the accuracy of the information herein. However, the information contained in this eBook is provided without warranty, either expressed or implied. The author will not be held liable for any damages to be caused either directly or indirectly by the instructions contained in this eBook, or by the application software described herein. The author provides examples for demonstration only, without warranty either expressed or implied.

Trademark Notice

Microsoft is a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries. All other trademarks mentioned herein are the property of their respective owners. The author has no affiliation with Microsoft Corporation. Screen captures were reprinted with authorization from Microsoft Corporation. This document is not a product of Microsoft Corporation.

About the Author

Ismet Kocaman is a Management Consultant, Project Management Consultant, Technical Project Manager and a Mechanical Engineer with over 20 years of experience in the manufacturing sector.

He is currently providing management consultancy to the companies in the manufacturing sector on system improvement projects and technical projects. He also conducts training seminars for engineers on Project Management and MS Project with focus on the project management process in the manufacturing environment.

He is a Project Management Professional (PMP) and holds several Microsoft® certifications on MS Project.

Visit the website at <http://www.ismetkocaman.com> for more information on the author's profile and other eBooks

CONTENTS

INTRODUCTION	1
PART I : INITIAL ASSIGNMENTS	3
About Task Types and Effort-Driven Setting	3
Initial Assignments with Single Resources	7
Scenario #1: Enter Both Duration and Task Work Values, Do not Enter Assignment Units	8
Scenario #2: Enter Both Duration and Assignment Work, Do not Enter Assignment Units	12
A Quick Summary on the Scenarios Discussed So Far	14
Scenario #3: Enter Both Duration and Task Work Values, Do not Enter Assignment Units	16
Entering Assignment Units Along with the Task Work in a Fixed-Duration Effort-Driven Scenario	18
Scenario #4: Enter Both Duration and Assignment Work Values, Do not Enter Assignment Units	21
Comparing Scenario #3 and #4	23
Important Note on the scenario #4: Using the Assign Resources Dialog Box	24
Scenario #5: Enter Duration and Assignment Units	27
Scenario #6: Enter Task Work and Assignment Units	28
Scenario #7: Enter Duration, Assignment Work and Assignment Units	29
Summary of Scenarios Discussed	30
Notes on the Reference Guide	32
Reference Guide: Single Resource Initial Assignments	35
Some Examples Based on Models in Reference Guide	36
More Examples with Fixed-Duration Type Tasks	40
About Part Time and Partial Capacity Resources	40
Assigning a Part-Time Resource To a Fixed-Duration Type Task – Entering Duration and Task Work	42
Editing Resource Calendar Before or After Assignment	50
Assigning a Partial-Capacity, Full-Time Resource	53
Assigning a Full Capacity, Part-Time Resource	60
Summary: Part-time versus Partial-Capacity Scheduling of Resource Effort	66
Initial Assignments with Multiple Resources	67
Scenario #1: Enter Duration and Do not Enter Assignment Units	68
Scenario #2: Enter Duration and Assignment Units	70
Summarizing Scenario #1 & #2	71

Scenario #3: Enter Assignment Work.....	72
Scenario #4: Enter Duration and Assignment Work	75
Comparing Work Distributions; Scenario #3 versus Scenario #4.....	77
Scenario #5: Enter Task Work	84
Scenario #6: Enter Task Work	88
Scenario #7: Enter Task Duration and Work	91
Scenario #8: Enter Task Duration and Work	93
Reference Guide: Multiple Resource Initial Assignments	97
More Examples with Fixed-Duration Type Tasks	99
Assigning Part-Time Resources to a Fixed-Duration Type Task – Entering Duration	99
How Do Task Calendars Affect Fixed-Duration Type Tasks’ Schedules	101
Editing Resource Calendars Before or After Assignment	104
PART II : WORKING on ASSIGNMENTS	108
Reviewing the Assignments: Views and Fields.....	108
Adjusting the Basis to Look for Overallocations.....	109
Review the Overallocations in Task and Resource Views.....	110
Review Allocations – Other Views	116
Peak and Peak Units Fields	119
Timephased Fields: Percent Allocation and Other Related Fields.....	122
Summary: Views and Fields to Use While Reviewing Assignments	134
Editing the Assignments.....	135
Adding Resources to Reduce Task Duration.....	136
Removing Resources to Reduce Task Work	137
Adding Resources to Reduce Individual Capacity Allocated.....	138
Reducing Individual Capacity Allocated by Various Methods.....	144
Adding Resources to the Remaining Part of a Task.....	150
More Scenarios.....	155
Resolve Overallocations in a Project	155
Review Underallocations in a Project	167
Getting a Project Back on Track	183
Updating a Baseline Partially After Replacing a Resource.....	202
Managing Delays in Tasks with Multiple Resource Assignments.....	218

Reference Guide: Single Resource Assignments.....	250
Reference Guide: Multiple Resource Assignments.....	251

SAMPLE

INTRODUCTION

This eBook presents quick reference guides listing assignment models in order to help MS Project users with understanding how MS Project calculates the scheduling parameters while they perform initial assignments of single or multiple resources to the tasks in various scenarios. By the help of these guides, the users can easily create resource assignments, based on their estimations, that best fit their projects' requirements.

All the steps to develop these guides are explained in detail and supported by the demonstrations. Therefore, the readers (i.e., MS Project users) would be able to verify all the user interface operations and the results on their desktop computers running MS Project's desktop editions/versions. Not just the guides, but you also need to review these steps as well to understand MS Project's behavior in the initial assignments.

The content also includes information on how to adjust and/or edit the assignments in various scenarios during both planning and implementation phases of the projects. This eBook simply aims to enable the users to have full control over the assignment operations, and at the same time, make the process easier for them.

This eBook assumes that the readers are currently using MS Project in planning, scheduling and managing projects and already familiar with defining and assigning resources to the tasks in the desktop edition/version of the product used. The eBook also assumes that the readers, as MS Project users, have a working knowledge of the scheduling formula (i.e., the work formula), the task types, the effort-driven scheduling and the hierarchy among the calendars.

All the resources mentioned in the scenarios discussed are the work type resources (i.e., Type= <Work>). All resource calendars are the unmodified Standard calendar unless stated otherwise. Any instance of the term "assignment" in this eBook refers to a resource assignment. Any discussions on the task assignments, the costs associated with the resources, the resource leveling feature, the resource contouring feature, the resource pool feature, overtime work, scheduling the shifts, and the reports are out of scope of this eBook. All the tasks used in the demonstrations are automatically scheduled tasks. No models ignoring the resource calendars will be discussed in this eBook.

There are several features to make the resource assignments in MS Project (e.g., using the buttons or the drag-and-drop feature in the Assign Resources dialog box, selecting the resources from the checkboxes listed in the dropdown menu opened by clicking the task line cells in the Resource Names column, using the Resources tab of the Task Information dialog box, and so on), but we are going to intentionally use a combination view such as the Task Entry view or the one composed of the Task Usage and Task Form views in the demonstrations since they offer more visibility and control over the assignment operations.

One quick reminder before getting started: turning off the checkbox "Automatically add new resources and tasks" (see the Advanced tab in the Project Options dialog box) avoids creating new resources by typo while entering resource names by typing in. No worries about the new tasks since "Insert Assignment" command is grayed out in the shortcut menu opened by clicking an assignment in the Usage views in later editions/versions of the product.

Reference Guide: Single Resource Assignments

INITIAL ASSIGNMENT MODELS WITH SINGLE RESOURCES AT VARIOUS CAPACITIES, DEFAULT, SPECIFIED or CALCULATED

SCHEDULING QUESTION	ENTER / DO THIS	TO CALCULATE THIS
How much effort of a resource is required to complete a task in the given duration ?	Duration Assignment Units (or Default Units)	Assignment Work
How long does it take for a resource to complete a task that requires the given amount of task work or resource effort ?	Task or Assignment Work Assignment Units (or Default Units)	Duration
How much capacity of a resource is to be allocated for completing the given amount of task work in the given duration ?	Duration Task Work [Fixed Duration]	Assignment Units