



The Scheduling Formula

Laura Crawford
October 12, 2017

Laura Crawford



Senior PPM Specialist

Laura has over 7 years of experience with Microsoft PPM and offers a unique combination of business, project management, and technical expertise. Laura is an expert at envisioning and delivering solutions that utilize technologies across the Project Online, SharePoint and Business Intelligence platforms. Laura holds an BS from State University of New York College at Oswego and is a Microsoft Certified Trainer and a Microsoft Specialist.



Upcoming PPM Works Events

Event	Date
PMI® Mass Bay PDD 2017	September 22-23
Microsoft Ignite	September 25-29
PMI® Minnesota PDD 2017	September 25-28
PPM Works Webinar: Microsoft's Complete Work Management Solution	September 28 12 PM
Boston PPM Community Meeting	October 4 5:30-7:30 PM
PPM Works Webinar: The Scheduling Formula	October 12 12 PM
Project Summit Business Analyst World Boston	October 16-19
Dashboard in a Day Workshop	October 24 8-9:30 AM
KPI Reporting in Project Online	October 26 12 PM

Hope to see you there

Why PPM Works

- **Gold Microsoft Certified Partner** exclusively focused on **Microsoft Project, SharePoint, and Office 365**
- Some recent **Experience** includes Allergan, Medtronic, Plantronics, Shire, Synopsys and many more...



- We believe in **partnering** with you, **exceeding expectations** to build **long lasting success**.
- Our team's experience runs deep with Microsoft.
 - Over **225 Project Server implementations** and Trained **thousands** of students
 - Delivered **dozens** of Industry presentations (Microsoft Project Conference, Project Summit, PMI Conference)
 - Created **hundreds** of webcasts and blog articles
- We have contributed to the **new release of Microsoft Project and Project Server** for the past three cycles and share our expertise as volunteers for Microsoft, PMI, MPUG, and Project Summit.
- We **guarantee your success** and **our results** – we are not done until you are a satisfied client reference



Why Clients Choose PPM Works

Our Philosophy: We believe in honesty, integrity, and dedication – our passion for success drives our team. PPM Works core values start with family and health first to provide the most for our clients.

- Quality of Services are unmatched
- Trusted Experience
- Listening comes 1st
- Proven Methodology and Templates
- Competitive Pricing



Thank you for the information share today! You are so knowledgeable and a gifted presenter/teacher.

Program Manager, UnitedHealth Group

I wish we would have found PPM Works a long time ago - you make Microsoft Project understandable for all

Large Boston-based Pharma Co, Director of Training

I've attended several industry webcasts, conference sessions, and vendor meeting – this week's MPUG webinar certificate series on Microsoft Project (Online, Server, and Professional) was by far the best and I found it very useful – thank you.

Sr. Project Manager Consultant, Large Legal Firm

Agenda

Introductions

Overview

The Scheduling Formula

Task Types

Assignment Units vs Peak Units

Question and Answer



PPM Works

Learning Objectives

Students will become familiar with the scheduling engine of Microsoft Project and how to select the appropriate Task Type.

Session Goals

Improve Your Understanding of Task Types

Tips and Tricks for both New or Mature Organizations

Equip You to Get Started Today

Quick Reference on Steps to Get Started

Make the Most of Your Time

Fast-pace, Condensed Content with Time for Question and Answer

Overview: The Struggle Is Real

- Task dates change unexpectedly
- Resource assignments are thrown out of whack when a task duration/work is changed
- The schedule seems out of control



Overview: The Scheduling Formula

$$\text{Duration} \times (\text{Peak}) \text{ Units} = \text{Work}$$

- This formula is the driving force behind task calculations
- It will always hold true and cannot be changed
- If you change one of the variables, another variable **HAS** to change in order to keep the formula true

Work, Duration and Units

Work – The number of person hours a task requires

Duration – The total span of working time for a task

Units – The percentage or number that represents the assigned resources allocation to a task

Task Types

- **Fixed Units** – a task in which the assigned units (resource allocation) is fixed, any changes to the amount of work or duration will not affect the units
- **Fixed Work** – a task in which the work is a fixed value, any changes to duration or units will not affect the work
- **Fixed Duration** – a task in which the duration is a fixed value, any changes to work or units will not affect the duration

Effort driven – when a task is effort driven, Project keeps the work on the task the same regardless how many resources are assigned to the task. Effort driven scheduling only takes effect when resources are added or removed from the task.

Effort = Work

Overview: Fixed Units

$$\text{DURATION} \times \text{PEAK UNITS} = \text{WORK}$$

If you change the
Duration estimate

↓

$$2 \text{ Days} \times 2 \text{ Units} = 4 \text{ Person Days}$$

↓

$$1 \text{ Days} \times 2 \text{ Units} = 2 \text{ Person Days}$$

Work will be
recalculated



Overview: Fixed Duration

$$\text{DURATION} \times \text{PEAK UNITS} = \text{WORK}$$

If you change the
Units estimate

Work will be
recalculated

$$2 \text{ Days} \times 2 \text{ Units} = 4 \text{ Person Days}$$

$$2 \text{ Days} \times 1 \text{ Unit} = 2 \text{ Person Days}$$

Overview: Fixed Work

DURATION X PEAK UNITS = WORK

Duration will
be recalculated



2 Days

X

If you change the
Units estimate



2 Units

=

4 Person Days

4 Days

X

1 Unit

=

4 Person Days

Overview: Task Types Explained

If you select...	If you revise units...	If you revise duration...	If you revise work...
Fixed-units task type	Duration is recalculated.	Work is recalculated.	Duration is recalculated.
Fixed-duration task type	Work is recalculated.	Work is recalculated.	Units are recalculated.
Fixed-work task type	Duration is recalculated.	Units are recalculated.	Duration is recalculated.

Understanding Units

Three fields you need to understand:

- **Max Units** – how much of a resource's time is available for projects
- **Assignment Units** – how much of a resource's time is initially assigned to a task
- **Peak Units** – how much of a resource's time is currently assigned to a task

Understanding Units: Max Units

Examples:

Kiran's calendar shows 8 hour work days and Max Units set to 100%. This means Kiran is available to work on projects 8 hours per day.

$$100\% \times 8 = 8$$

Jacque's calendar also shows 8 hour work days, but he is only spending half of his time on projects. His Max Units are 50%. This means Jacque is only available to work on projects 4 hours per day.

$$50\% \times 8 = 4$$

Max Units are managed in the Enterprise Resource Pool.

Understanding Units: Assignment Units

Reflect the number of hours/day a resource is initially assigned to work on a specific tasks

- Will NEVER be recalculated by MS Project
- Can ONLY be changed by manually entering in a different percentage

Understanding Units: Peak Units

Reflects the total hours/day a resource is **currently** assigned to a specific task

- It captures what a resource is currently scheduled to work (based on changes to the schedule, etc...)

Question and Answer



Contact Us

We'd Love to Hear From You, Get In Touch With Us!

Address: 30 Newbury Street, Boston, MA 02116

Phone: 888-858-3060

Email: info@ppmworks.com

Web: www.ppmworks.com

PDU's for this Webinar

PPM Works is a PMI® Registered Education Provider (R.E.P.). We offer PDU's for this presentation. To claim your PDU please email **info@ppmworks.com** with your PMI number and reference this presentation.

Pictures

- For more pictures please go to:

PMI Logos and Statement

- PMI®
- PMI® and PMP® are registered marks of the Project Management Institute, Inc.



PPM Works Logos

- If you have something covering the logo please copy and paste the logo on the bottom (if you do not move the logo and click copy then go to the slide and click paste it will paste it in the correct spot)
- The next page has the logo in white

PPM Works Logo

If you have something covering the logo please copy and paste the logo on the bottom (if you do not move the logo and click copy then go to the slide and click paste it will paste it in the correct spot)