

Infinite Possibilities - Measurable Results



# Microsoft Project 2010 – Project Essentials Planning, Communicating, Tracking

Robert Happy, PMP, MCT, MCTS
Project Management Practice Inc.
www.pm-practice.com

### What is Project Management Practice Inc.?

"Our mission is to make you more productive with portfolio and project management by providing real world, value added meaningful training, consulting and practical products."

#### **PM Training – Simply The Best**

Project Management Concepts

Microsoft Project, Server and SharePoint

General Management and Leadership

#### **PM Consulting – Right The First Time**

PPM Process & EPM Systems

PMO Set-up and Support

Coaching & Scheduling

#### PM Marketplace – On Demand Tools & Training

**Books and Whitepapers** 

Video Based eLearning

Software, Templates, Tools









### Who Is Robert, PMP, MCT, MCTS?

rhappy@pm-practice.com

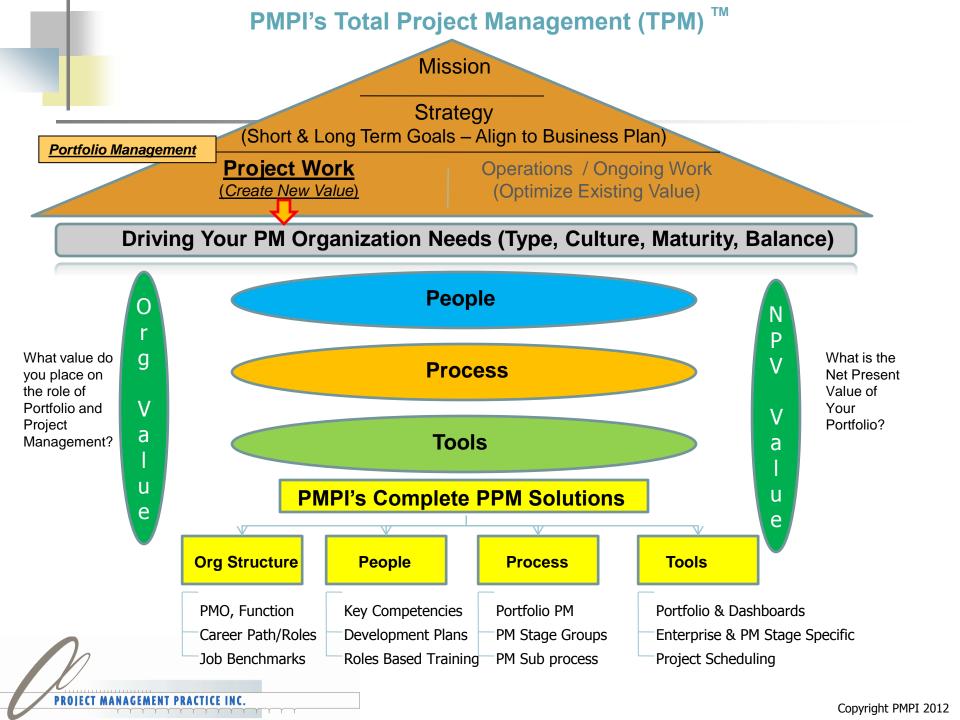
- •20 yrs. portfolio and project management consulting and training experience
- Published book, articles, training programs on PM and Microsoft Project
- Worked with 100's of organizations and 1000's of individuals to optimize PM



- •Implemented PM and Project Server systems for large and small – private and public sector
- •Founding partner and executive team member of Project Management Practice, Inc. (PMPI)

www.pm-practice.com





### **Program Overview**

- Part 1 Planning Essentials
- Part 2 Communicating Essentials
- Part 3 Tracking Essentials



## Training Will Help

Recent Microsoft customer research that shows that "with just two days of training, Project users score 30-50% higher on ease of use, usefulness, importance, and satisfaction in using the tool".

Real World Scenario: Client with no previous Project training — moving from frustrated PM's to enabled PM's



### Microsoft Project Certification

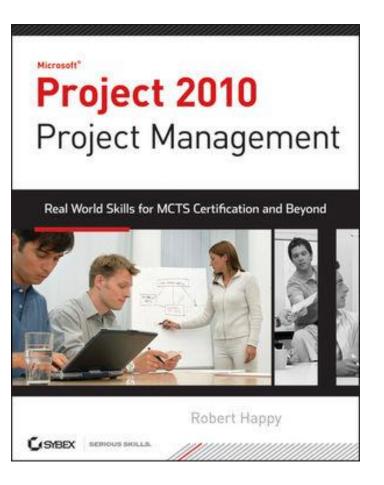
- As project management has grown, organizations have asked Microsoft to help make it easier to identify individuals that have knowledge and expertise in the field and with Microsoft Project
- Project 2010 certification 70-178: Microsoft Project 2010, Managing Projects exam focuses on desired outcome and results.
- Certification program was created to help make the identification of skilled project managers easier.

Real World Scenario: How many potential or existing PM's say they know how to use Project but do not use it effectively?





# Project 2010 Project Management



Get the most out of Microsoft's latest release of the popular project management tool, Project 2010, with this comprehensive guide from Author Robert Happy.

ISBN: 978-0470561102

**Price:** \$49.99

Available: Now

Pages: approx. 600

Media: CD, with videos, sample files, and PDF of book

Can be pre-ordered - from your favorite bookstore, including Amazon, Barnes&Noble, or check out

www.sybex.com/go/happy

Note: Prepares Candidates for Certification Exam 70-178, Microsoft Project 2010, Managing Projects

### Video Based eLearning (CBT) Training for Project 2010

Offers 16 PDU (PMI) credits and prepares for Microsoft Project Certification Exam



"I just finished taking your course on Microsoft Project Core Essentials, and absolutely loved it! I plan on sitting for my MCTS exam...Thank you once again for a fantastic class!"

Unsolicited email from a certified PMP customer

When you purchase "Project 2010 Project Management: Real World Skills for Certification and Beyond" by Robert Happy, PMP, save \$50 on the Project 2010 Core Essentials course.

Get the most out of Microsoft Project 2010, with this **video-based**, on-demand training course from Project Management Practice, Inc and Keystone Learning Systems.

In this course Robert combines real-world examples and step-by-step instruction to equip you with the knowledge you need to effectively plan, track, and execute projects in Project 2010.

Price: \$449 \$399

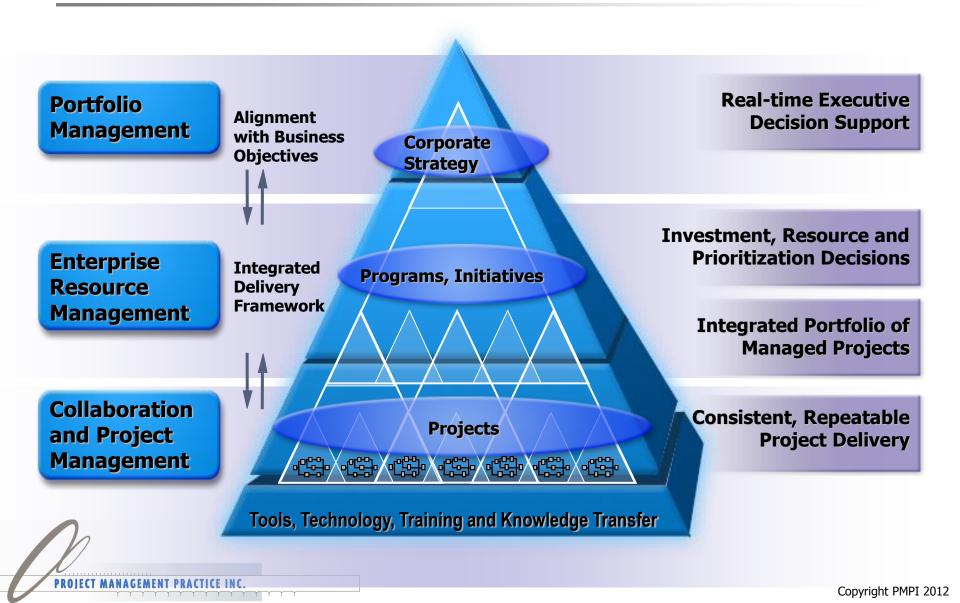
Available: Now

**Includes:** 100 + lessons, Videos, Sample Files, Quizzes,

Exercises, and complete KeyNotes.

Media: Online or DVD-ROM.

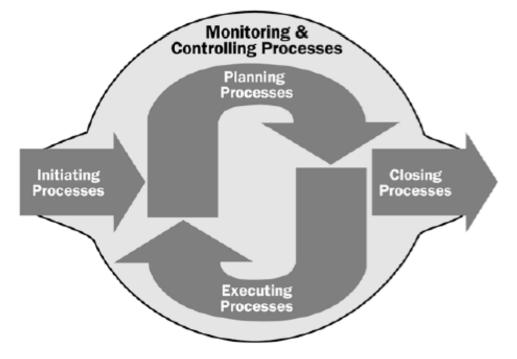
## Strategic Fit of Project 2010



# PMI Process Groups

- 1. Initiating
- 2. Planning
- 3. Executing
- 4. Monitoring & Controlling
- 5. Closing

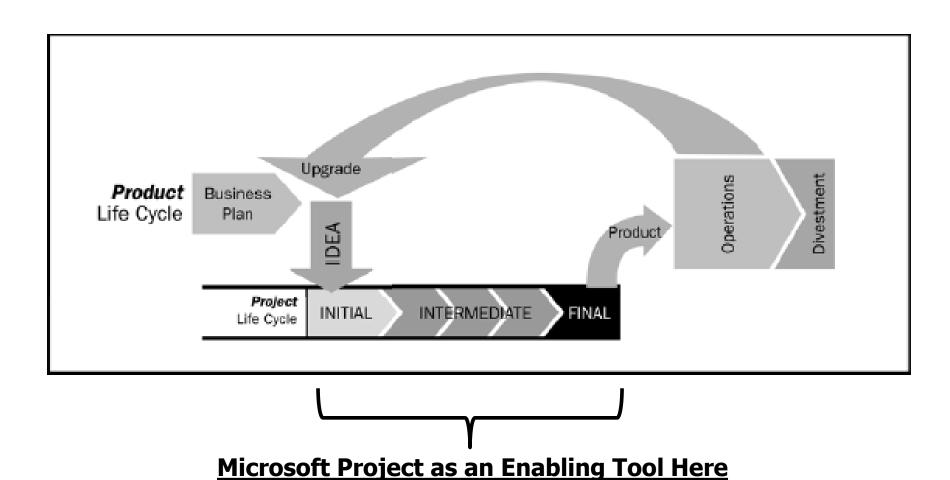
Project better supports Modern Day Project Management Techniques





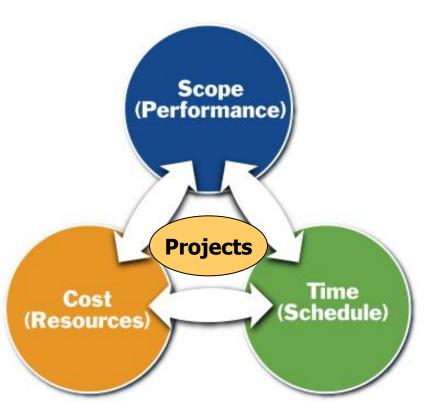
### PM Life Cycle vs. Product Life Cycle

**PMBOK Guide** 





### Constraints Projects Have to Live By



Managing your constraints with Project 2010

- ➤ A project manager is responsible for accomplishing project objectives
  - >within scope
  - >on time
  - >within budget
- ➤ Project quality is impacted by managing these three key factors
- ➤ Project is specifically designed for this purpose with easy to use tools for small or big projects



## **Program Overview**

Part 1 – Planning Essentials

Part 2 – Communicating Essentials

Part 3 – Tracking Essentials



### How Do I Get Started?



- Overview of the new look
  - Gantt Chart with Timeline view
  - Zoom Slider, Status Bar Area
- New Ribbon Interface
  - Logical Groupings of Commands
  - Easily Customize Quick Access Toolbar
- Checking out the 'Backstage'
  - Managing project files and templates
  - Adjust Key Project Options to meet your needs
- Define the project start date
- Apply calendars that match how we work



# demo

**Getting Started** 

### What We Discussed - Getting Started

- Moving around the Gantt view & New Ribbon
- Changing views and the timescale
- Creating split screens (Timeline/Details)
- Defining the project start date
- Applying different calendars
- Key Option Settings (Manual vs. Automatic)



### What's Next – Planning Essentials

#### PMPI's 4 Key Steps to Planning Effectively

- Step 1: Enter the Work Breakdown Structure (WBS) & Task Arrangement
- Step 2: Estimating Duration (or Work)
- Step 3: Setting Dependencies (Networking)
  - Constraints & Deadlines
  - Understanding the Critical Path
- Step 4: Assigning Resources/Costs
  - Team Planner View
  - Resource Leveling
  - Assignment Units vs. Peak Units



# Step 1- Easily Enter Phases, Tasks and Milestones

- The importance of the Task Name column
- Bring in plans from Excel
- Use the indent/outdent key to create different outline levels
- Use the Show Outline button to expand/collapse the plan
- Easily insert, delete or move tasks
- Automatically turn on a Project Summary Task
- Automatically turn on the outline number codes



# Planning & the Work Breakdown Structure (WBS)

Begin with the end in mind – breaking the project down into manageable components is known as the

Work Breakdown Structure –

A hierarchical organization of work.



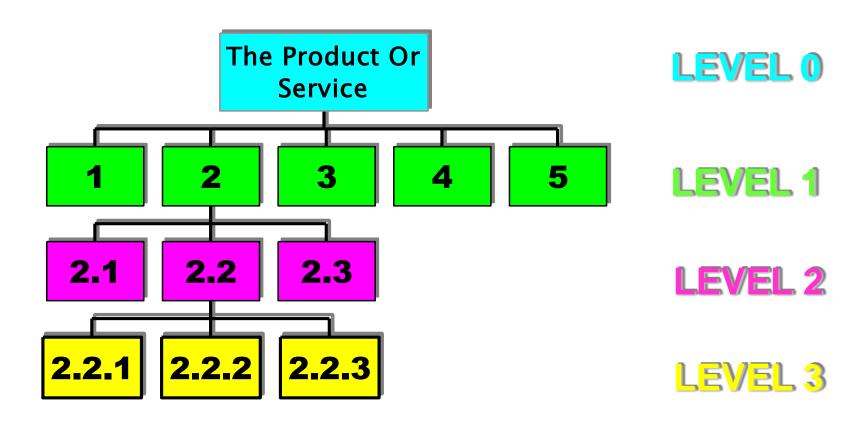
#### Work Breakdown Structure

- WBS groups and organizes the project elements into a chart or outline format.
- The WBS defines the total scope of the project.

What is not in the WBS is outside the scope!



### A WBS – Chart Format





### WBS – Outline Format

ID		Task Name	
	0		
0		WBS Template Example 1	
1		1 Phase 1 (Interim Deliverabe A)	
2		1.1 Task 1	
3		1.2Task2	
4		1.3 Task 3	
5		1.4 Task 4	
6		1.5 Task 5	
7		1.6 Milestone A Completed	
8		2 Phase 2 (Interim Deliverable B)	
9		2.1 Task 1	
10		2.2Task2	
11		2.3 Task 3	
12		2.4 Task 4	
13		2.5 Task 5	
14		2.6 Task 6	
15		2.7 Milestone B Completed	
16		3 Phase n (Last Interim Deliverable)	
17		3.1 Task 1	
18		3.2 Task 2	
19		3.3 Task 3	
20		3.4 Task 4	
21		3.5 Task n	
22		3.6 Milestone n Completed	



### **Deliverables Based WBS**

- (0) Final Deliverable
  - 1.0 Interim Deliverable 1
    - 1.1 Task 1
    - 1.2 Task 2
    - 1.3 Task n
    - 1.4 Key Milestone Deliverable Achieved
  - 2.0 Interim Deliverable 2
    - 2.1 Task 1
    - 2.2 Task 2
    - 2.3 Task n
    - 2.4 Milestone Deliverable Achieved
  - 3.0 Interim Deliverable n



# demo

Step 1: Enter Phases, Tasks, Milestone (Work Breakdown Structure)

# What We Discussed – Enter Phases, Tasks and Milestones

- Task Name column
- Importing plans from Excel
- Using Enhanced Copy & Paste
- Outlining with Indent/Outdent tools
- Using the Show Outline tool
- Inserting, deleting and moving tasks
- Project summary task
- Using outline number codes



# What Step

# What's Next: Step 2 - Estimating Duration

- Using working day conversions
- Manual vs. Automatic
- Enter directly into duration column
- Task information
- Click and drag Gantt bar
- Use split screen view



# demo

**Estimating Duration** 

# What We Discussed

- Estimating Duration
- Estimating duration in terms of working days
- Using the duration column (Manual vs. Automatic)
- Using the task information box
- Entering duration in the split screen view



# What's Next: Step 3 - Task Dependencies

- Easily use the link and unlink tools
- Enter directly into the predecessor column
- Use the split screen view to add lag
- Change from Finish to Start to Start to Start
- Use the click and drag approach in the Bar area
- Manual Scheduling and Respect the Links
- Top Down Estimating
- Solve problems with the Task Inspector



# demo

**Setting Dependencies** 

# What We Discussed – Setting Task Dependencies

- Using the link and unlink tools
- Entering dependencies directly into predecessor column
- Using the split screen to enter lag or change 'finish to start' to 'start to start'
- Clicking and dragging between tasks to set links
- Top Down Estimating
- Respect Links and Manual Scheduling
- Use the Task Inspector to help



# 6 Key Drivers that Impact the Calculation of Time for Automatic Scheduling

- 1. Duration Estimates
- 2. Project Start Date (Project Information)
- 3. Calendars
- 4. Constraints (99%=ASAP)
- 5. Dependencies (Networking)
- 6. Resource Assignments (W=D\*U)



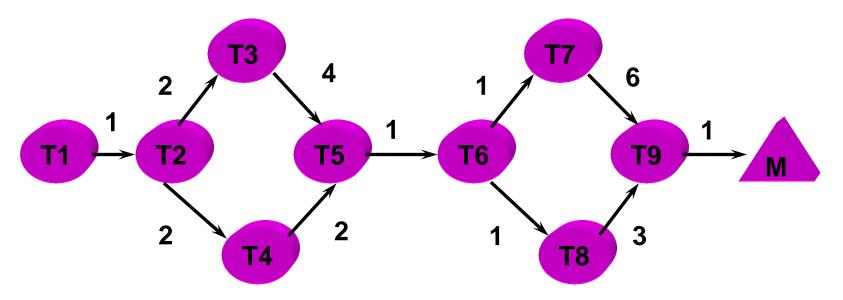
### Critical Path

 One sequence of tasks that fixes the duration of the project

 Any slippage of any task(s) on the Critical Path will cause the project to finish later than planned

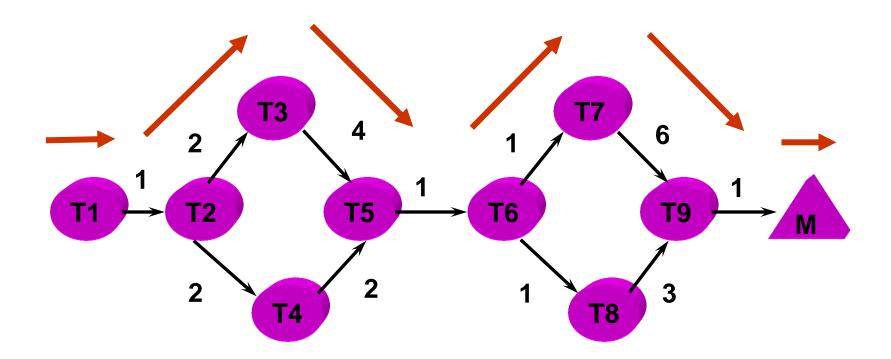


### Critical Path Network



Task	Early Start	Late Start	Early Finish	Late Finish	Total Slack
T3	3d	3d	7d	7d	0
T4	3d	5d	5d	7d	2
T7	9d	9d	15d	15d	0
T8	9d	12d	12d	15d	3

## **Identify the Critical Path**





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**Critical Path** 

### What We Discussed – Reviewing & Analyzing Critical Path

- What is the Critical Path
- Formatting Text Styles
- Formatting Bar Styles
- Displaying Total Slack
- Managing Your Project Life Cycle



#### What's Next: Step 4 - Assigning Resources & Costs

- Setting up a resource pool
- Assign resources in the Resource Name column
- Using the Assign Resource tool
- Modify details with the split screen view
- Using the Team Planner view
- Overview the project summary including total work and costs in Project Statistics



#### **Assigning Resources**

- Create resources in the Resource Sheet or share an existing resource pool
- When a Resource is added to a task,
   Work is calculated
- Avoid Assigning to Summary Tasks
- Use the 'Smart Tags'
- Can select 'Multiple Tasks/Resources'



### Resource Availability MAX UNITS

- Represents the percentage of the Standard Calendar the resource is available to perform project related work
- If Standard Calendar is 8 hours per day:
  - 100% equates to 8 hours of project work
  - 50% equates to 4 hours of project work
  - 80% equates to 6.4 hours of project work
- Resources are over allocated when their assigned work exceeds their Max Units



#### Task Types: Work = Duration \* Units

- DURATION Period of time over which a task occurs
- Fixed Duration task is not affected by the amount of resources or the work of the resources
- A 10-day Fixed Duration task takes 10 days, always



#### Task Types: Work = Duration \* Units

- WORK the amount of time resources spend performing the task
- Fixed Work remains the same even if resources are added or removed
- 2-day Fixed Work task takes 2 days of work (amount of resources and duration may change)



#### Task Types: Work = Duration \* Units

- UNITS the allocation percentage for a resource assignment to a task
- Fixed Units allows the project manager to edit the work or duration of a task and have the software calculate the work required over the span/duration of the assignment
- A Resource assigned at 50% will remain 50% committed to Fixed Units task regardless



#### Work = Duration \* Units

Task Type	When PM adds resource, this will change	When PM changes duration, this will change	When PM changes work, this will change	When PM changes units, this will change
Fixed Duration	Units	Work	Peak Units*	Work
Fixed Work	Duration	Peak Units	Duration	Duration
Fixed Units	Duration	Work	Duration	Duration

<sup>\*</sup>New In Project 2010 – the units field does not recalculate automatically. It retains the original default estimate of 100% unless manually changed. Instead, it uses the Peak Units field to display fluctuations in work.



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**Assigning Resources & Costs** 

#### 6 Key Drivers That Impact the Calculation of Time for Automatic Scheduling

- 1. Project Start Date
- 2. Calendars
- 3. Duration Estimates
- 4. Setting Dependencies
- 5. Task Constraints (Majority = ASAP)
- 6. Resource Assignments (W=D\*U)



#### Planning Essentials Review

- Planning and the Work Breakdown Structure (WBS)
- 4 Steps To Successful Planning
  - Step 1: Enter & Modify Phases, Tasks, and Milestones (Work Breakdown Structure)
  - Step 2: Enter & Modify Duration Estimates
  - Step 3: Enter & Modify Task Dependencies
  - Step 4: Assign Enterprise Resources
- Critical Path Focus on Tasks Driving Your Completion

**Note**: The above steps can be applied when creating projects from a blank project or initiating a plan from a template.



#### **Program Overview**

- ◆ Part 1 Planning Essentials
- Part 2 Communicating Essentials
- Part 3 Tracking Essentials



#### Part 2 Overview

- Understanding Views
  - ◆ 2 New Views Timeline and Team Planner
- Tables and Custom Fields
- Filters, Groups, Highlights, Sorts
- Visual Reports and Reports
- Rich Copy and Paste
- Sharing Project Information



#### Communicating to Multiple Stakeholders – No Easy Job

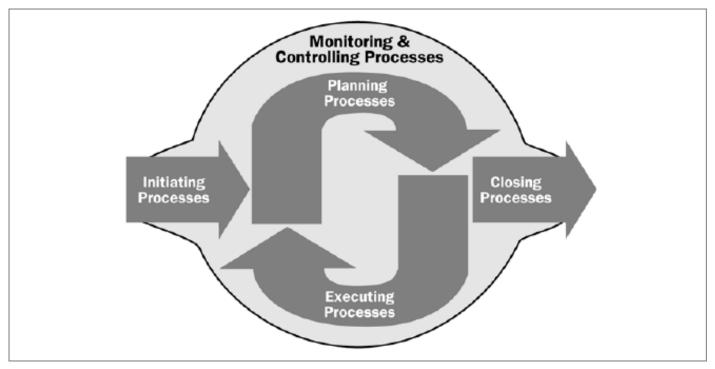


#### PM's Spend Significant Time Communicating – A Key to Success

- As the number of people involved in the project increases, the number of potential communication channels increases.
- The following formula represents the number of potential communication channels that may exist: n(n-1)/2
  - 5 people = 10 channels
  - 10 people = 45 channels
  - 20 people = 190 channels
- Manage your communication effectively



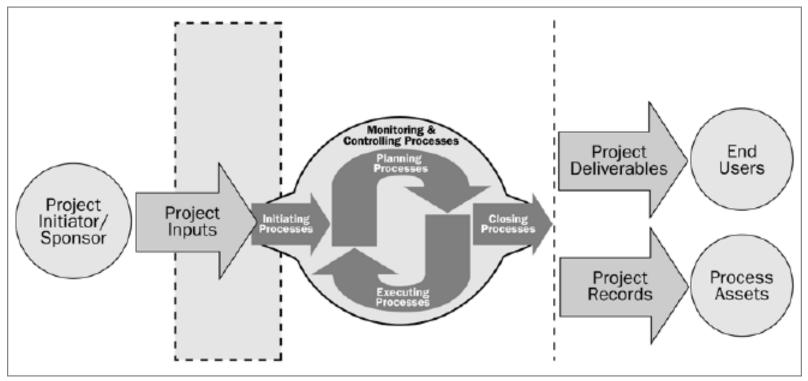
#### PMI Process Groups



Microsoft Project is an enabling Communication & Reporting tool for each PM Process



### As You Drive Toward Deliverables – Use Project to Help Keep Project Records



Reprinted from PMI PMBOK 3rd Edition



### What's Next – Use Different Fields & Tables?

- Using the default Entry table
- Change from one table to another
- Insert or hide columns in an existing table
- Move columns around by clicking and dragging
- Creating New Fields
- Creating New Tables



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Applying and Creating Fields and Tables

### What We Discussed – Applying Different Tables & Fields

- Default Entry table
- Changing & creating tables
- Changing & creating fields
- Inserting or hiding columns in a table
- Clicking and dragging to move columns in a table



### What's Next — Applying Filters, Highlights and Groups

- Apply filters
  - Filter for Milestones
  - Using the Date Range filter
  - Filter for Resources
- Using the Auto-filter function
- Using the Highlights
- Apply groups
  - Group by Milestones
  - Group by Critical Tasks



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Groups, Filters & Highlights

### What We Discussed – Using Filters and Groups

- Applying filters
- Using different filters such as milestones, date range, and resources
- Using the Auto-filter function
- Applying Highlights
- Applying groups
- Grouping by Milestones
- Grouping by Critical Path



#### Apply Different Views

- Use the Timeline View
- Use the Team Planner View
- Use Calendar View
- Use Network Diagram
- Apply the Task Usage View
- Apply the Resource Usage View
- Create various split screen views such as with a resource graph



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**Using Different Views** 

### What We Discussed - Using Different Views

- Timeline & Team Planner View
- Understanding the Calendar view
- Network Diagram view
- Task Usage view
- Resource Usage view
- Split screen with Resource Graph



### What's Next –More Collaborating & Reporting Capabilities

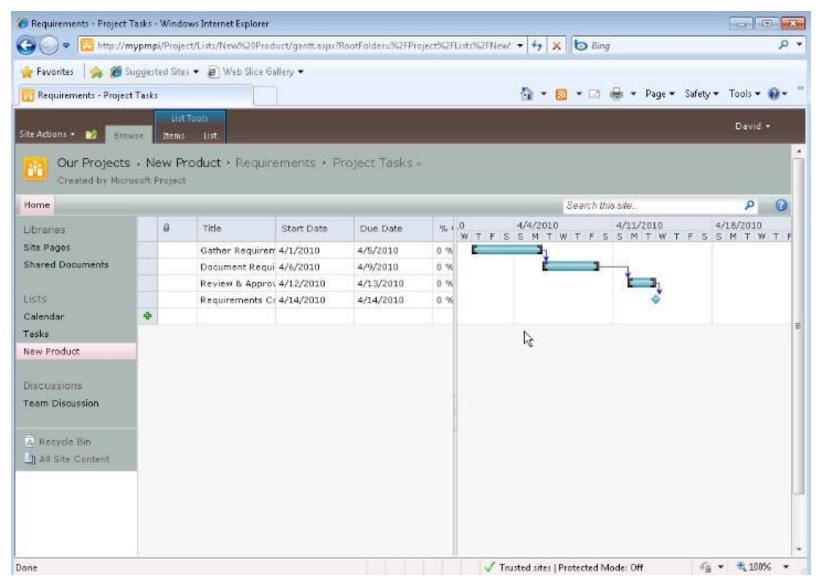
- Visual reports
- Discover other pre-defined reports
- Use Enhanced Copy and Paste
- Use the Save & Send for different formats
- SharePoint Task List Synchronization



### demo

Reports and Collaboration

#### Sample Task List in SharePoint



### What We Discussed – Collaborating & Reporting Capabilities

- Using 'Visual' and pre-defined reports
- Using the Save & Send
- Use Enhanced Copy & Paste
- Synchronize with SharePoint

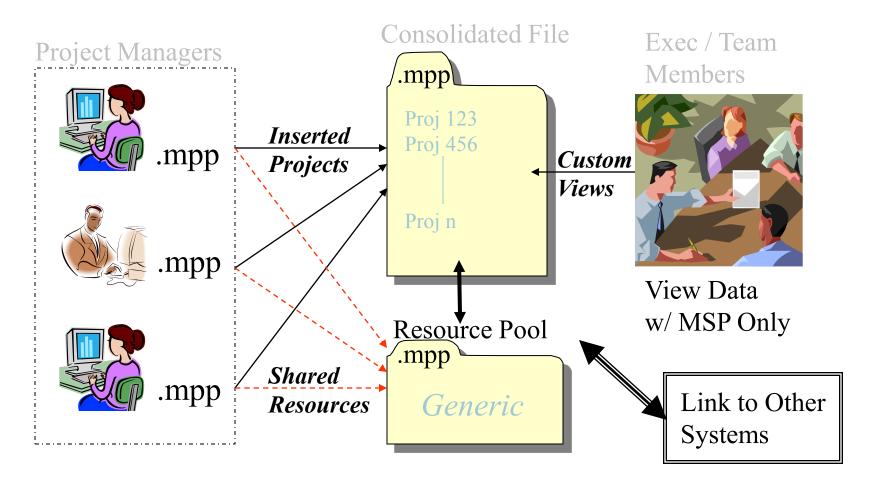


#### What's Next -Master Schedules

- Creating Master Schedules
- Cross Project Dependencies
- External Predecessors and Successors
- Creating and Sharing a Resource Pool
- View Resource Assignments Across Projects



### Multiple Projects without Project Server





## demo

**Master Schedules** 

#### What We Discussed— Master Schedules

- Master Schedules
- Cross Project Dependencies
- External Predecessors and Successors
- Sharing a Resource Pool
- View Resource Assignments Across Projects



#### **Program Overview**

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#### **Updating and Tracking**

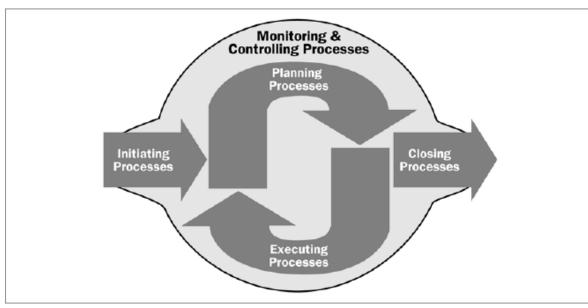
- Project Management Fit
- Understanding and Setting Baselines
- Setting Up Tracking Views
- Updating Your Plan (%Complete and Actuals)
- Analyzing Your Plan



### PMI Process Groups

- 1. Initiating
- 2. Planning
- 3. Executing
- 4. Monitoring & Controlling
- 5. Closing

#### Tracking & Analyzing



Reprinted from PMI PMBOK 3rd Edition



#### Constraints Projects Have to Live By



Managing your constraints with Project 2010

- ➤ A project manager is responsible for accomplishing project objectives
  - >within scope
  - **>** on time
  - **>** within budget
- ➤ Project quality is impacted by managing these three key factors
- ➤ Project is specifically designed for this purpose with easy to use tools for small or big projects



# Set-up an Effective Tracking View and Understanding & Setting Baselines

- The baseline vs. the current plan
- Set the baseline
- Reset or clear a baseline
- Multiple Baselines
- Use the Tracking Gantt view to help
- Apply the Variance Table



# **GEMO**Set Up Tracking View

### What We Discussed - Understanding & Setting Baselines & Tracking Views

- Understanding the baseline vs. current plan
- How to set the baseline
- Resetting or clearing a baseline
- Using the Tracking Gantt view
- Using the Variance table



## What's Next – Updating % Complete & Actuals

- Easily mark tasks done with % Complete
- Enter actuals with the Update Tasks tools from the Schedule Group
- Use the Task Inspector
- Use the Inactive Task feature
- Use the automatic update function
- Tracking Table



## demo

**Updating - % Complete & Actuals** 

# What we Discussed – Updating Tasks

- Using % Complete to mark a task done
- Entering actuals with the Update Tasks button from the Tracking Toolbar
- Task Inspector & Inactive Tasks
- Automatic Update function
- Using Tracking table



### What's Next —Analyze Change Impact and Take Corrective Action?

- Apply the Slipped Tasks filter to help
- Use Group By Critical at the same time as the Slipped Task filter
- Easily analyze my plan using filters and groups together
- Modify my plan to bring it back on track
- Use the notes field to keep track of changes



# demo

**Analyze Plan & Take Corrective Action** 



- Using the filtering and grouping tools to analyze changes
- Using the Show Change Highlighting tool to view the impact of making changes
- Modify the plan to bring it back on track
- Using the notes field to record reasons for changes



#### What is Project Server 2010?

- Microsoft Project Server 2010 is built on Microsoft SharePoint Server 2010, bringing together powerful business collaboration platform services with structured execution capabilities
- Provides innovative capabilities across the entire lifecycle to help organizations effectively initiate, select, plan and deliver projects on time and within budget.



#### The EPM Solution Capabilities

**Demand Management** - Intuitively capture all requests within a central repository, and manage them using governance workflow

**Portfolio Selection and Analytics**\_- Objectively prioritize, optimize, and select project portfolios that best align with the organization's business strategy

**Resource Management** - Proactively and reactively manage resources throughout the project life cycle

**Schedule Management** - Easily create and communicate both simple and complex project schedules

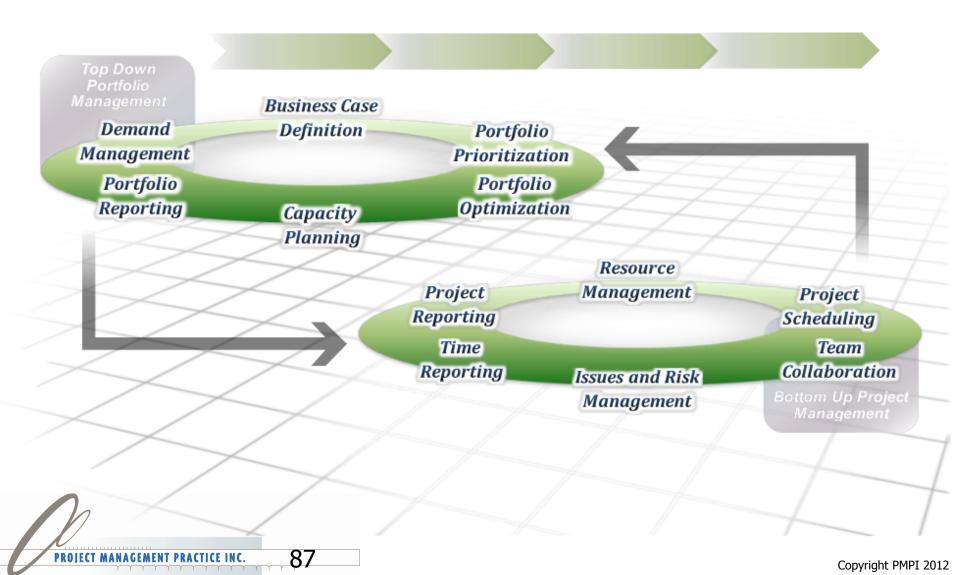
**Time and Task Management** - Simplify the collection of time and task status updates from team members

**Team Collaboration** - Better connect disparate teams to share information and drive collaboration

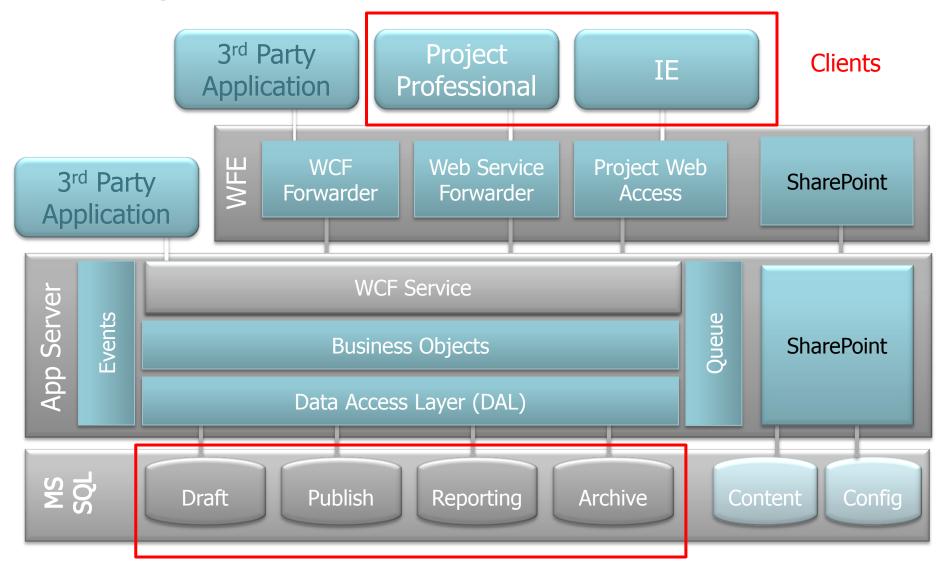
**Business Intelligence and Reporting** - Effectively measure project performance and gain visibility and control across all portfolios



#### Microsoft EPM Solution Capabilities



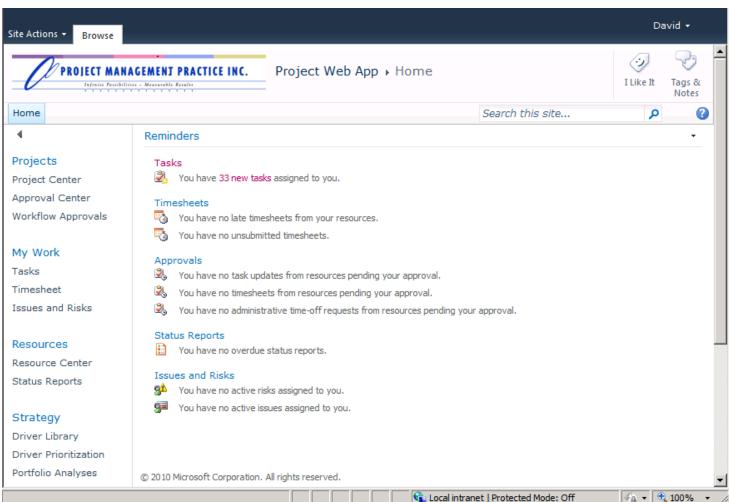
#### Project Server Architecture Overview



Project Data Storage

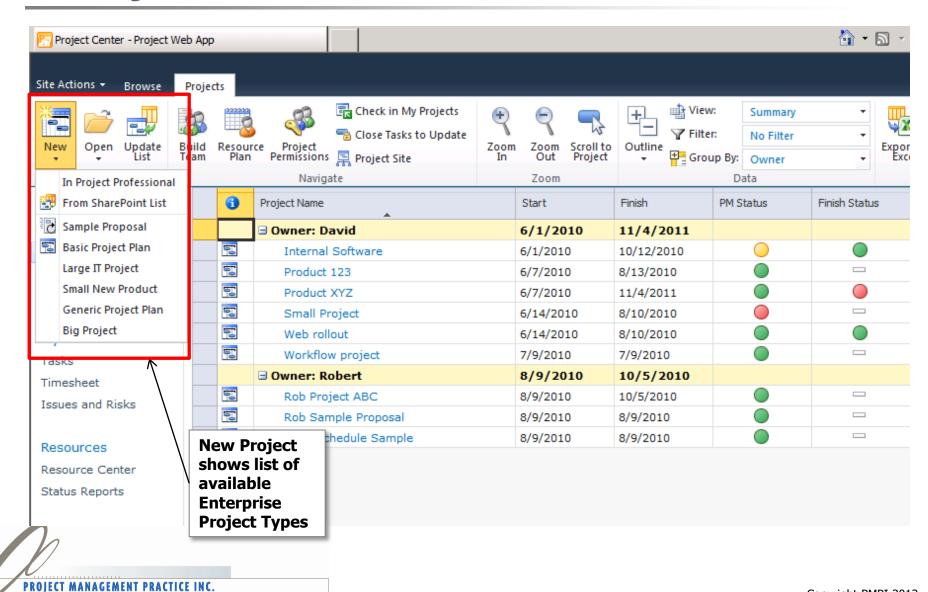
#### Project Web App - Home Page

- The PWA Home Page is a personalized entry point to Project Server for every user
- Shows overview of items that have changed since the user last accessed PWA

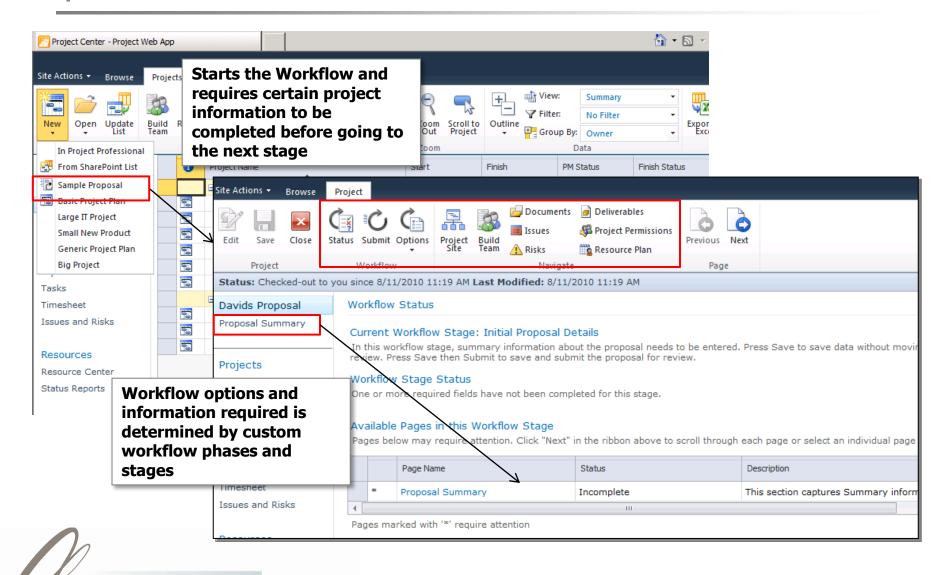




#### Project Center in PWA

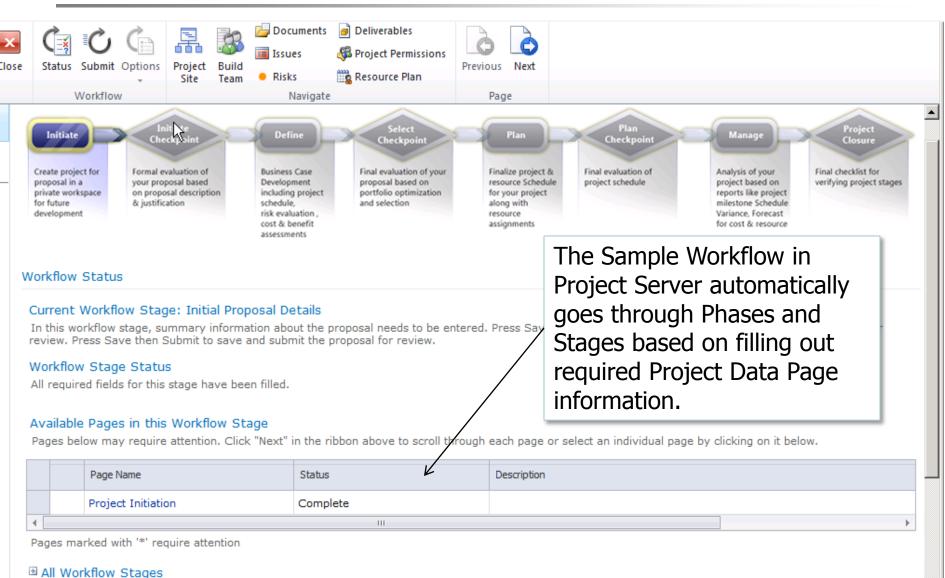


#### Project Proposal with Workflow

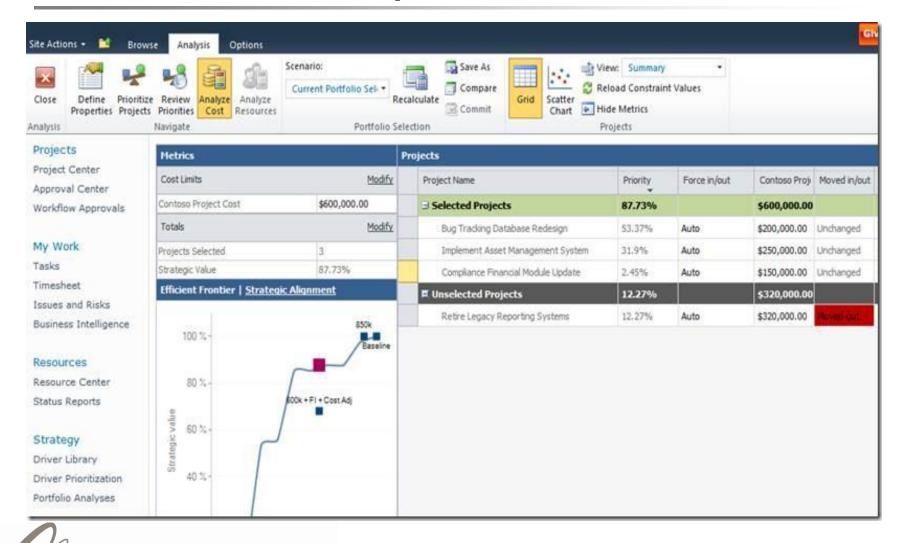


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#### Sample Workflow Stages

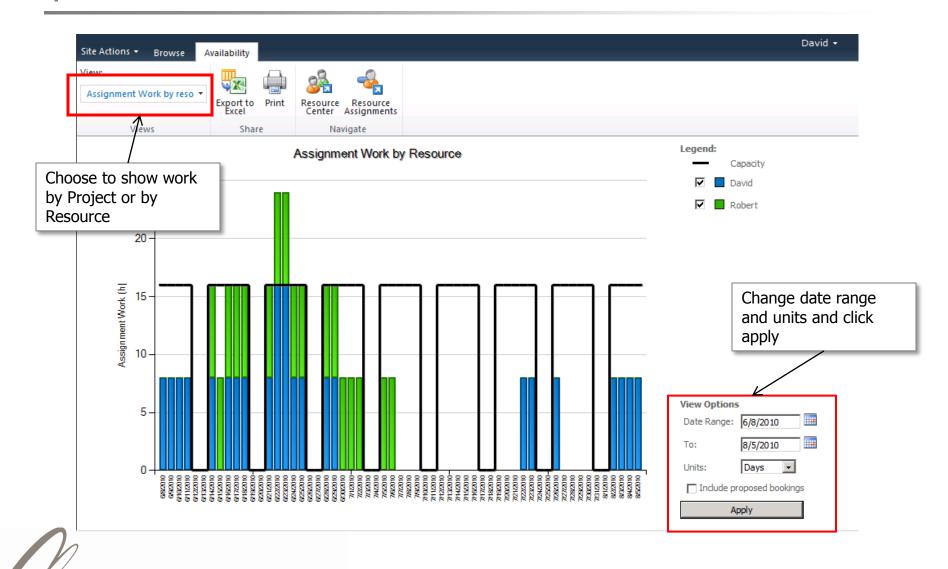


#### Portfolio Analysis

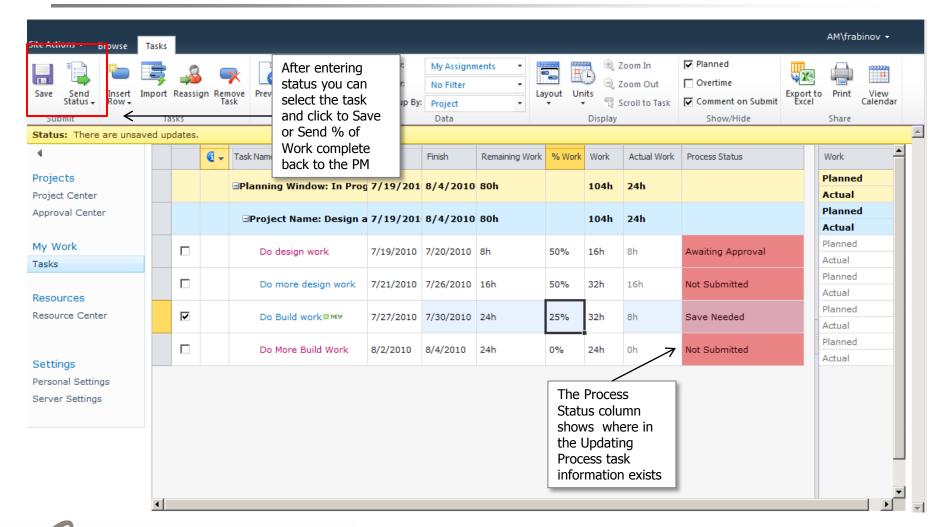


#### Resource Availability

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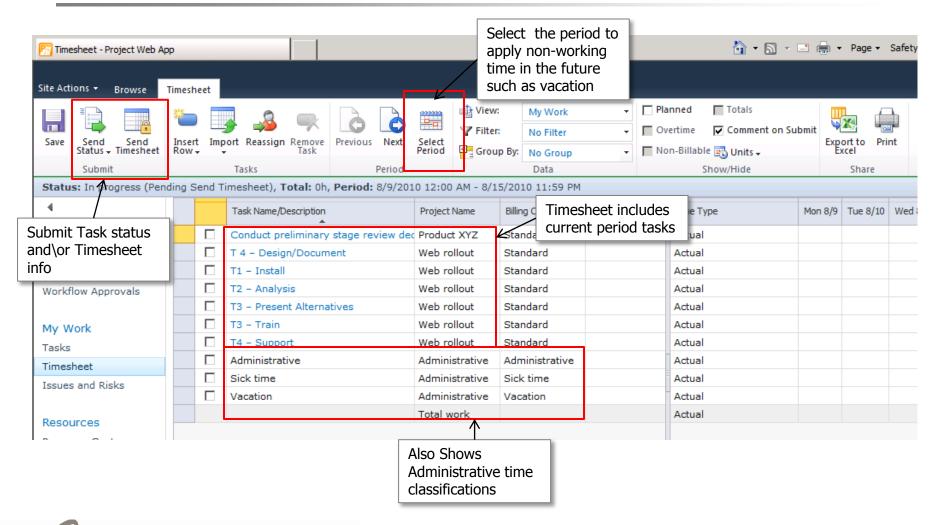


#### **Easily Submit Status**



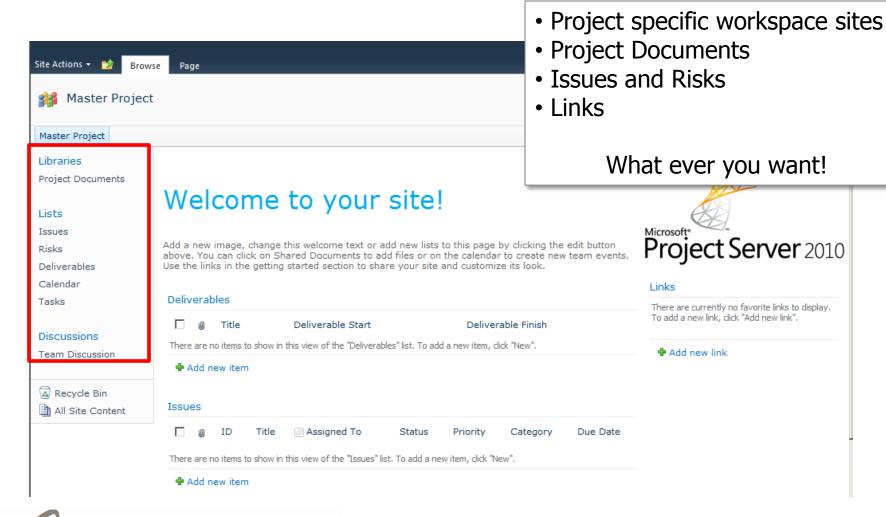


#### **Updating the Timesheet**





#### Collaboration Essentials

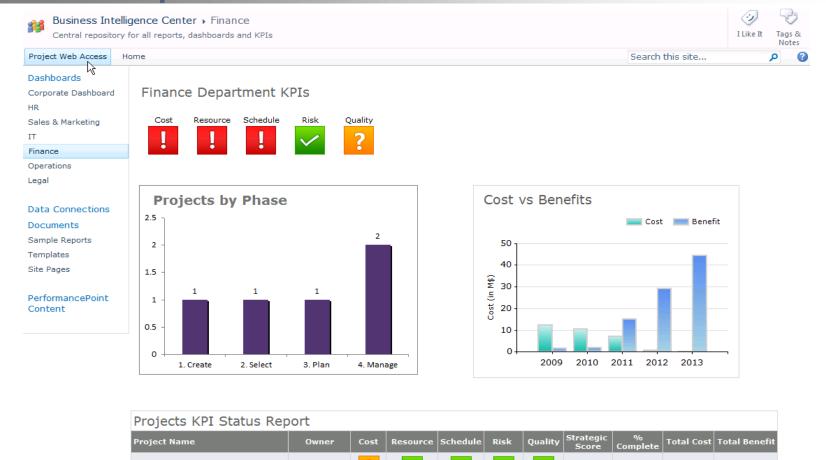




#### Sample KPI Dashboard

Chris Gray

Chris Gray



0.45

\$600,000

\$560,000

\$2,110,000

\$1,905,000



**New Zen Report Module** 

**ROI Calculation Matrix** 

#### What's New in Project 2010?

- Improved Interface
  - Ribbon style commands to better support how you plan and manage schedules
  - Backstage for managing files and Project environment options
  - Most common commands are one click away
- User Controlled Scheduling
  - Choose to Manually schedule for an easy to use Excel like interface or take full advantage of the powerful schedule engine with Auto Schedule
  - Create Top-Down Summary Tasks that don't use rollup for scheduling and even compare to details
  - Inactivate tasks to retain information without deleting (Professional Investment)



#### What's New in Project 2010 (cont'd)...

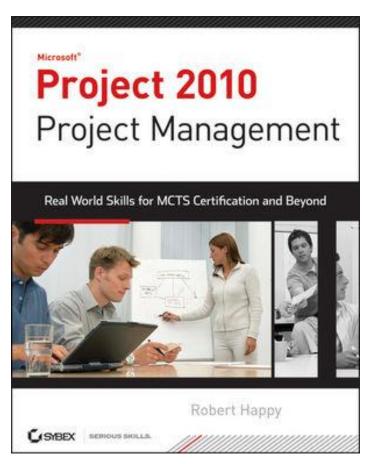
- New Viewing Options
  - Timeline view to see the big picture part of the default view
  - The Team Planner for resource management and drag and drop resources scheduling (Professional Investment)
  - New Gantt chart bar styles
  - Easier View Creation and Customization
- Better Analysis
  - 'Task Inspector' shows why a task is scheduled where it is and allows action to correct
  - Move Tasks to reschedule forward or back
  - Project Version comparison now includes Gantt bars
- Easier Collaboration and Sharing of Information
  - Sync with SharePoint lists (Professional Investment)
  - Save to PDF for easier sharing
  - Enhanced Copy and Paste







### Project 2010 Project Management



Get the most out of Microsoft's latest release of the popular project management tool, Project 2010, with this comprehensive guide from Author Robert Happy.

ISBN: 978-0470561102

**Price:** \$49.99

Available: August 2010

Pages: approx. 600

**Media:** CD, with videos, sample files, and PDF of book

Can be pre-ordered - from your favorite bookstore, including Amazon, Barnes&Noble, or check out

www.sybex.com/go/happy

Note: Prepares Candidates for Certification Exam 70-178, Microsoft Project 2010, Managing Projects

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### Thank You!

### **Questions & Answers**

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