



Visualize Your Data with KPI Reporting in Project Online

Presented by Scott Clausen
May 22nd, 2018



Microsoft



PPM Works

PPM Works Executive Team



Jacques Goupil, PMP, MCTS, MCP

Director of Training & Business Development

Jacques.Goupil@ppmworks.com
www.linkedin.com/in/JacquesGoupil

Jacques has been implementing Microsoft Project solutions since 1998 and has over 20 years of professional experience in project management software design, implementation, and development. Coming from a Program Management background, Jacques has successfully implemented PMOs at many Top 50 firms and he shares his experience and knowledge as a guest speaker and panelist at several industry conferences. Jacques holds a Bachelor's degree in Management Information Services, is certified by the Project Management Institute as a Project Manager Professional and holds his MCP and MCTS in Project.



Scott Clausen, PMP, MCTS, MCP

Director of Delivery & Technology

Scott.Clausen@ppmworks.com
<https://www.linkedin.com/in/clausenscott/>

Scott Clausen has been helping client customers with Microsoft based PPM solutions for over 20 years. Scott is an expert at envisioning and delivering solutions that utilize technologies across the Project, SharePoint and SQL Server Business Intelligence platforms. Scott has launched several large Project environments that required expertise in architecture planning, requirements consolidation, upgrade planning, PSI integrations, and custom SQL Reports. He holds an MBA from UC Berkeley and is a PMP® and MCP with 19 exam certifications and completed the highly-reviewed Microsoft Project Online/Server Certification Series.



Agenda

Introduction to KPIs in PPM

Reporting KPIs in the Project Desktop Client

Reporting KPIs in Project Online

Reporting KPIs in Excel

Reporting KPIs in Power BI

Question and Answer

What is a KPI

Key Performance Indicators (KPIs) in project management consist of **measurements** for indicating how well projects and portfolios are **achieving specific goals**.



SMART KPIs

Consider developing KPIs using the S.M.A.R.T. criteria originally developed by George T. Doran (Management Review, 1981) and popularized by Peter Drucker.



Popular PPM KPIs

Finish
Variance

Work Variance

Cost Variance

Count of Late
or Past Due
Milestones

Count of
Critical Issues

Count of
Critical Risks

Resource
Utilization

Overall Status

A group of people are gathered around a wooden table, reviewing several documents and charts. One person is pointing at a chart with a white pen, while another is holding a black pen. The charts include bar graphs, pie charts, and line graphs. The scene is brightly lit, suggesting a professional meeting or presentation.

Demo #1: Reporting KPIs in Project Desktop

Project KPI Formula Reference

- 1. Finish Variance:** $\text{If}([\text{Baseline Duration}] = 0, -999, [\text{Finish Variance}] / [\text{Baseline Duration}])$
- 2. Work Variance:** $\text{If}([\text{Baseline Work}] = 0, -999, [\text{Work Variance}] / [\text{Baseline Work}])$
- 3. Cost Variance:** $\text{If}([\text{Baseline Cost}] = 0, -999, [\text{Cost Variance}] / [\text{Baseline Cost}])$
- 4. Late Milestone Count:** $\text{If}([\text{Milestone}] = \text{Yes And } [\text{Finish Variance}] > 0, 1, 0)$
- 5. Past Due Milestone Count:** $\text{If}([\text{Milestone}] = \text{Yes And } [\text{Finish}] < \text{Now}(), 1, 0)$

A group of people are gathered around a wooden table, looking at several documents. The documents contain various charts and graphs, including bar charts, pie charts, and line graphs. One person is pointing at a document with a white pen, while another person is holding a black pen. The scene suggests a collaborative meeting or presentation.

Demo #2: Reporting KPIs in Project Online

Popular PPM KPIs

Finish
Variance

Work Variance

Cost Variance

Count of Late
or Past Due
Milestones

Count of
Critical Issues

Count of
Critical Risks

Resource
Utilization

Overall Status

Excel Reports

Project Online does not allow users to query the database directly. OData (Open Data Protocol) is used to access the data using HTTP messages.

Excel will allow us to:

- Define OData data sources
- Use Power Pivot to create relations between entities
- Use Pivot Table, graphs, tables or Power View to create reports

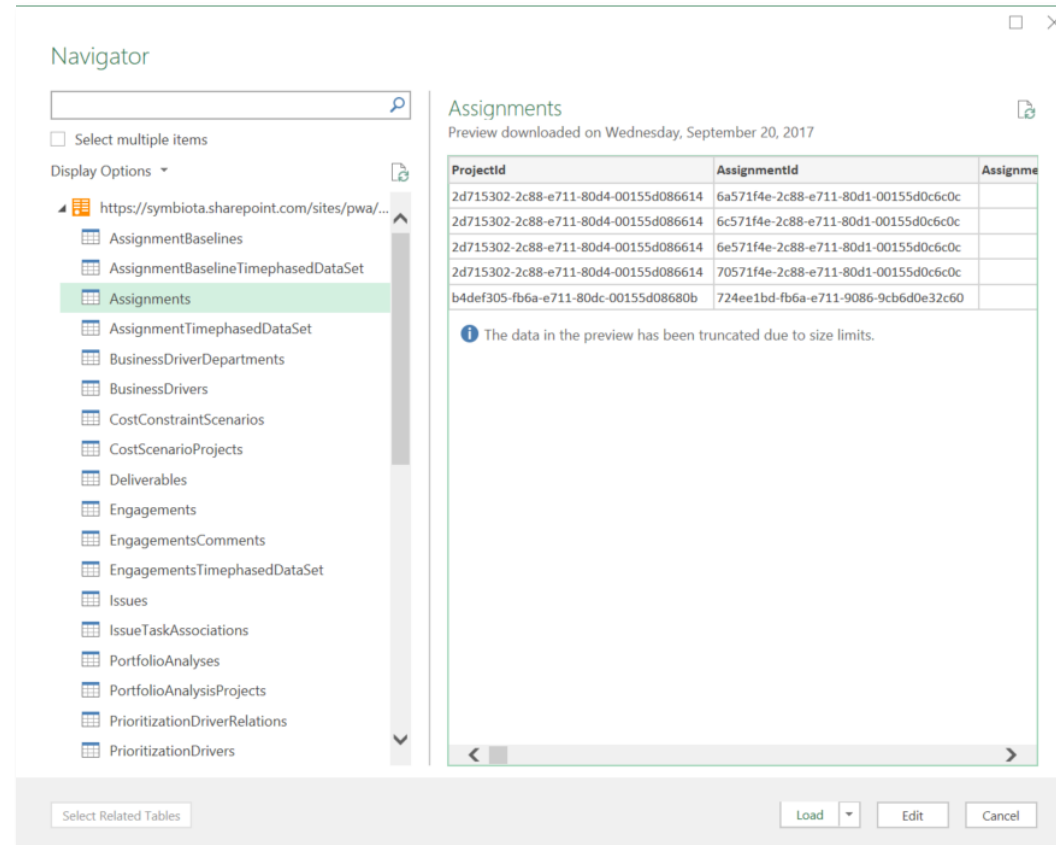
Connecting Excel to Project Online Data

- Open a blank workbook
- From the Data ribbon, select Get Data | From Other Sources | From OData Feed
- Enter the URL: **https://yourURL.com/sites/pwa/_api/projectdata**

The screenshot illustrates the steps to connect Excel to Project Online Data. It shows the Microsoft Excel interface with the Data ribbon selected. The 'Get Data' button is highlighted with a red box. A dropdown menu is open, showing 'From Other Sources' selected, with 'From OData Feed' also highlighted. An 'OData feed' dialog box is open, showing the 'Basic' tab selected and the URL 'https://ppmw.sharepoint.com/sites/pwademo/_api/projectdata/' entered in the URL field. The dialog box has 'OK' and 'Cancel' buttons.

Select the Tables

- Select the table and click Load – best practice is to only load the fields needed
- Select edit to remove fields



The screenshot shows the PPM Works Navigator interface. On the left, a list of tables is displayed under the URL <https://symbiota.sharepoint.com/sites/pwa/...>. The 'Assignments' table is highlighted. On the right, a preview of the 'Assignments' table is shown, downloaded on Wednesday, September 20, 2017. The table has three columns: Projectid, Assignmentid, and Assignme. The data is truncated due to size limits.

Projectid	Assignmentid	Assignme
2d715302-2c88-e711-80d4-00155d086614	6a571f4e-2c88-e711-80d1-00155d0c6c0c	
2d715302-2c88-e711-80d4-00155d086614	6c571f4e-2c88-e711-80d1-00155d0c6c0c	
2d715302-2c88-e711-80d4-00155d086614	6e571f4e-2c88-e711-80d1-00155d0c6c0c	
2d715302-2c88-e711-80d4-00155d086614	70571f4e-2c88-e711-80d1-00155d0c6c0c	
b4def305-fb6a-e711-80dc-00155d08680b	724ee1bd-fb6a-e711-9086-9cb6d0e32c60	

The data in the preview has been truncated due to size limits.

Buttons at the bottom: Select Related Tables, Load, Edit, Cancel.

Select the Fields

To remove fields:

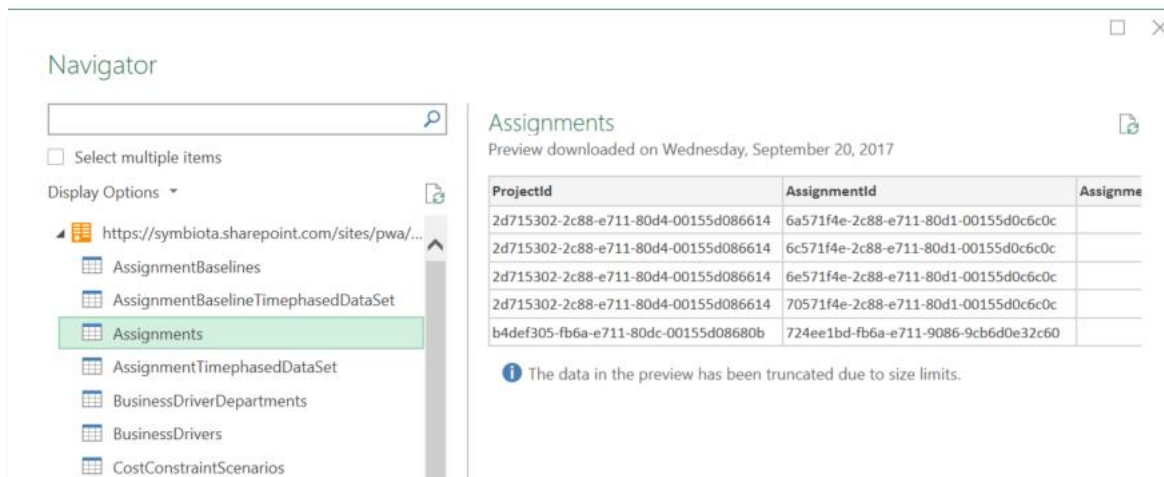
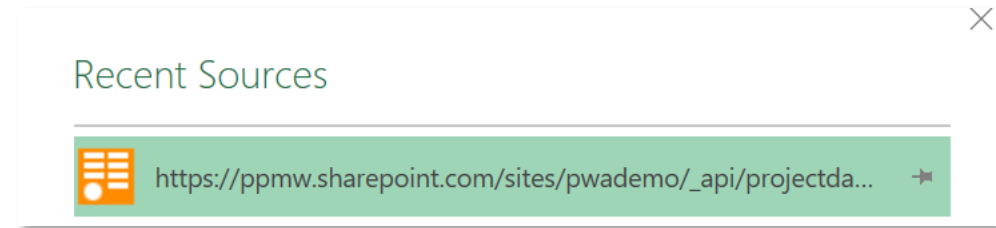
- Highlight the columns
- Right click and select Remove Columns
- Select Close & Load

The screenshot shows the Microsoft Power BI Query Editor interface. The top ribbon includes tabs for Home, Transform, Add Column, and View. The Home tab is active, showing various data manipulation options like Refresh, Properties, Advanced Editor, Manage, Choose Columns, Remove Columns, Keep Rows, Remove Rows, Sort, Split Column, Group By, Replace Values, Merge Queries, Append Queries, Combine Files, Manage Parameters, Data source settings, New Source, and Recent Sources. Below the ribbon, a table is displayed with columns: ParentProjectId, PlannerCommitDate, PlannerDecisionAliasLookupTableId, PlannerDecisionAliasLookupTableValueId, and PlannerDecisionID. The first five columns are highlighted in green. A context menu is open over the table, with 'Remove Columns' highlighted in red. Other options in the menu include 'Remove Other Columns', 'Add Column From Examples...', 'Remove Duplicates', 'Remove Errors', 'Replace Values...', 'Fill', 'Change Type', 'Merge Columns', 'Group By...', 'Unpivot Columns', 'Unpivot Other Columns', and 'Unpivot Only Selected Columns'. A 'Close & Load' button is visible in the top right corner of the interface.

	ParentProjectId	PlannerCommitDate	PlannerDecisionAliasLookupTableId	PlannerDecisionAliasLookupTableValueId	PlannerDecisionID
1		null	null	null	null
2		null	null	null	null
3		null	null	null	null
4		null	null	null	null
5		null	null	null	null
6		null	null	null	null
7		null	null	null	null
8		null	null	null	null
9		null	null	null	null
10	c43f7052-347c-e711-bc91-3402868164ff	null	null	null	null
11		null	null	null	null
12		null	null	null	null
13		null	null	null	null
14		null	null	null	null

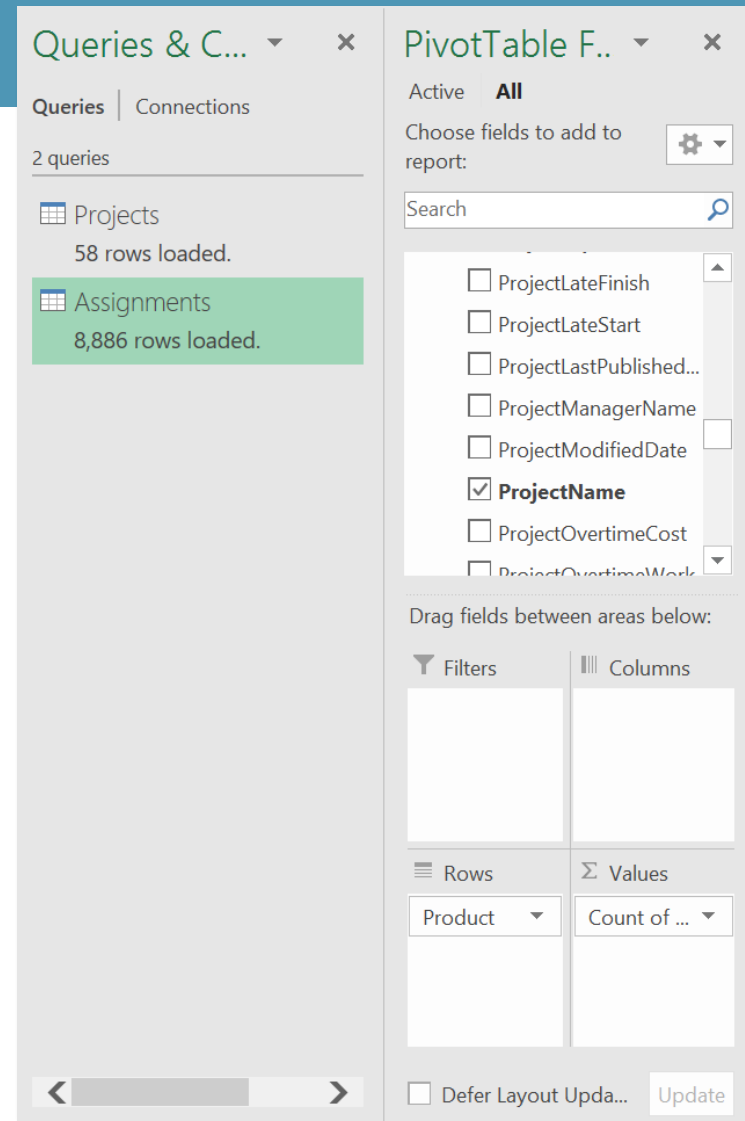
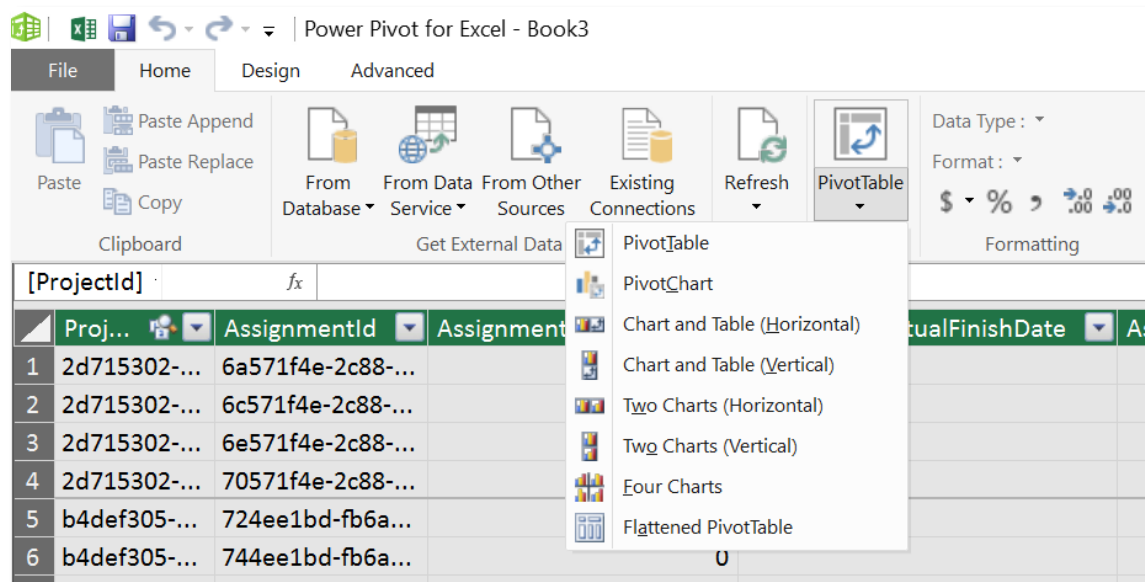
Select Additional Tables

- Select Recent Source
- Click Connect
- Select additional tables
- Click Load to select all fields or edit to remove fields



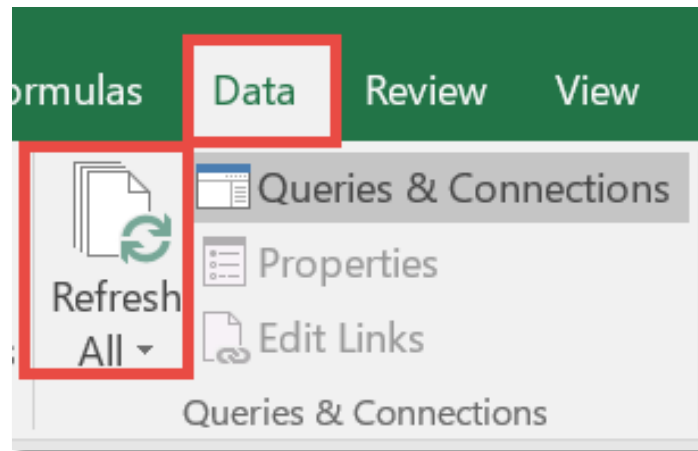
Creating a Pivot Table

- From the Home ribbon, select Pivot Table
- Select the Rows to display
- Drag and drop the values



Refreshing the Data

The report can be saved to your desktop and refreshed upon opening.



A group of people are gathered around a wooden table, reviewing several documents. The documents feature various data visualizations, including bar charts, pie charts, and line graphs. One person is pointing at a document with a white pen, while another has a black pen. The scene is brightly lit, suggesting an office or meeting room environment.

Demo #3: Reporting KPIs in Excel

Popular PPM KPIs

Finish
Variance

Work Variance

Cost Variance

Count of Late
or Past Due
Milestones

Count of
Critical Issues

Count of
Critical Risks

Resource
Utilization

Overall Status

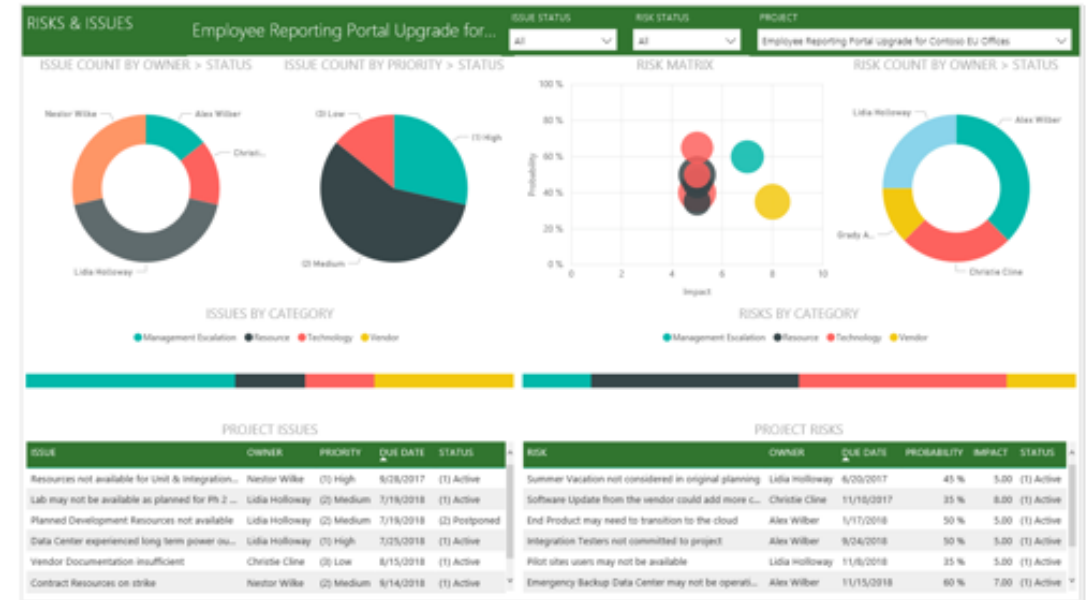
Download Power BI Desktop and the Content Pack

- **Power BI Desktop**

<http://www.microsoft.com/en-us/download/details.aspx?id=45331>

- **Project Online Content Pack**

<https://github.com/OfficeDev/Project-Power-BI-Content-Packs>





Demo #4: Reporting KPIs Power BI

KPI Images in Project Online for Power BI

Base URL: https://yourURL.com/sites/pwa/_layouts/15/inc/PWA/images/

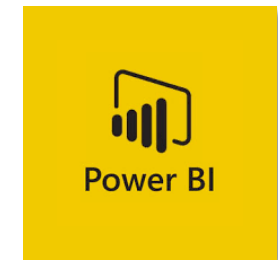
Plus:

- cf_6p.png (green KPI)
- cf_1p.png (yellow KPI)
- cf_2p.png (red KPI)

Summary



We hope you put these tips into action today creating new KPI based views and reports to keep your projects and portfolios in the **green**.



PPM Works Events and Webinars

Free Tips and Tricks Session

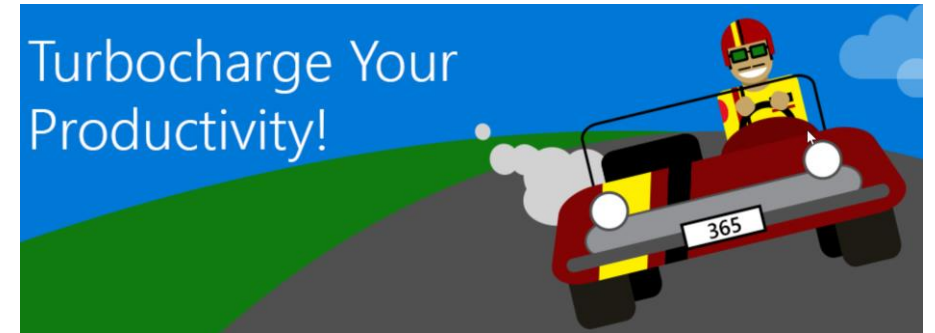
- Visit us at www.ppmworks.com/microsoft-workshops

Upcoming Events:

- Gartner PPM Summit National Harbor, MD June 12th – 14th
- Virtual Project Conference June 6th - 7th

Webinars and OnDemand Sessions:

- Please visit www.ppmworks.com/events to view our full event list or check out
- www.ppmworks.com/on-demand-webinars to view our On Demand Webinars.





LinkedIn: [Jacques Goupil](#) [Scott Clausen](#) [PPM Works](#)

Our Site: www.ppmworks.com

Blog: <http://ppmworks.com/blog/>

Questions and Calls To Action

1. Get your **KPI Tool Kit** today – send an email to info@ppmworks.com
2. Check out our Blogs / Webcasts
3. Get LinkedIn with us (Scott Clausen and Jacques Goupil)
4. Send questions to info@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.

PMI® is a registered mark of the Project Management Institute, Inc.

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