

Displaying Information In SharePoint Using Excel Services, Reporting Services And PerformancePoint

Tricia Wilcox Almas, Director, Business Intelligence, Advanced Data SharePoint Saturday Virginia Beach January 7, 2012

AGENDA

Many SharePoint users and developers are not aware of the various ways that information can be displayed in SharePoint. Whether the data is stored in lists, or is from a Line of Business application (LOB), SharePoint gives you several options for displaying reports, graphs, scorecards, strategy maps and other valuable information insight. We will also cover the basics of good dashboard design.

- Choices for Information Display in SharePoint
- Dashboard Design Template
- Deciding Which Tool To Use To Create Display Components
- ► Set Up For Excel Services, Reporting Services And PerformancePoint
- Publishing Excel Workbooks And Excel Services Web Parts
- ▶ Report Libraries And The Reporting Services Report Viewer Web Part
- Whirlwind Overview Of PerformancePoint Dashboard Designer
- ▶ Deploying PerformancePoint Dashboards
- Using PerformancePoint Web Parts



WHY SHOULD YOU LISTEN TO ME?

Consultant AdvancedData the sharepoint people



SharePoint Administrator 2010

Instructor



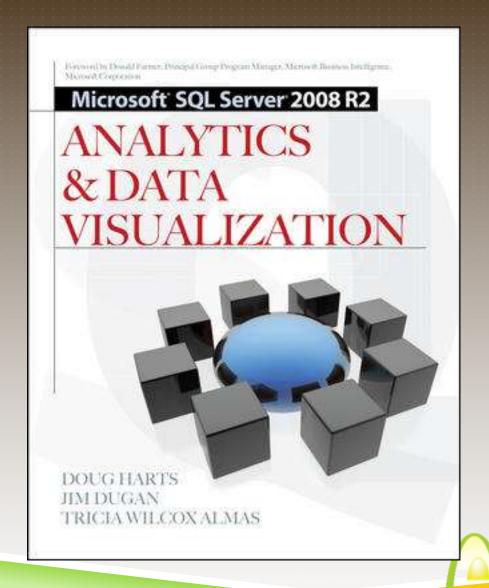
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Published Author

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Doug Harts, Jim Dugan, Tricia Wilcox Almas

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CHOICES FOR ANALYTIC INFORMATION DISPLAY IN SHAREPOINT

Displaying information in SharePoint Using Excel Services, Reporting Services and PerformancePoint

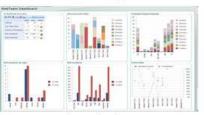
Type of Dashboard



Strategic



Performance Management



Operational



Process-oriented BI

Type of LOB Information



Financial Information



Human Resources



Schedule Info



Agile Development Info

Type of Data Sources



SQL Databases



SharePoint Lists



Web Services



OLAP Cubes

Type of Information Display Widgets



Gauges



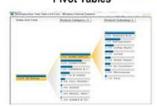
Analytic Charts

Indicator	Goal	Value	Status
Schedule	3	3	0
Budget	3	2	Δ
Resources	3	1	0
Issues	3	2	Δ
Risks	3	3	0
Issues Risks	3	3	<u>A</u>

Scorecards



Pivot Tables



Decomposition Trees

Tools to Create Displays



PerformancePoint Dashboard Designer



Excel Professional 2010



Reporting Services (BIDS)







Visio, SharePoint Designer, ReportBuilder

DECISIONS, DECISIONS

So how do you decide which tool to use for each dashboard component?

- Strategic or Performance Dashboards generally need scorecards – create in PerformancePoint or Excel
- Operational and Process-oriented Dashboards will generally show workflow and task completion, and other departmentlevel types of measures – create in Excel or Reporting Services, Process Maps in Visio and PerformancePoint
- Charts, gauges, graphs Excel or Reporting Services
- Pivots Excel and PowerPivot



DASHBOARD DESIGN TEMPLATE

The Information Visualization Mantra:

- Overview First.
- · Focus on Specifics,
- Drill to Details

Most Important Information

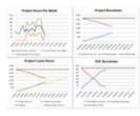
Screen Real Estate

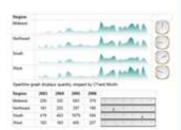




This section of the dashboard page should have the most important, most summarized information – like a scorecard of KPIs or small multiples of leading indicators. This section should definitely be graphics oriented.

Secondary Information





This section of the dashboard page should contain clarifying additional information, a good location for geographic-based info or other information visualizations like gauges and small graphs.

Tertiary Information

	Values				
Row Labels -7	Acct Nbr Count	Fin Trx Amt	Fin Trx Ct	Qty Shipped	
# Midwest	382	\$207,643.18	3,223	1,618	
■ Northeast	240	\$83,306.53	2,081	993	
* South	864	\$2,293,190.79	22,818	2,466	
= West	276	\$145,553.05	2,373	998	
Grand Total	1,762	\$2,729,693.55	30,495	6,075	

This section of the dashboard page should display supporting information or more detailed, historical or background information. Graphs with drill-down capabilities, process diagrams, maybe even pivot chart of dimensional data.

Ancillary Information

Executive Summaries Category A

- ExSumm Topic 1
 ExSumm Topic 2
- ExSumm Topic 3
- ExSumm Topic 4
 Other Dashboards
- Marketing Dashboard
- IT Dashboard
 Distribution Dashboard
- Training Dashboard
 Personnel Dashboard
- This section of the dashboard page receives the least attention, so scan-able information is required Executive Summary listings grouped by topic, Links to specific reports or other dashboards.

Least Important Information

Links to additional information

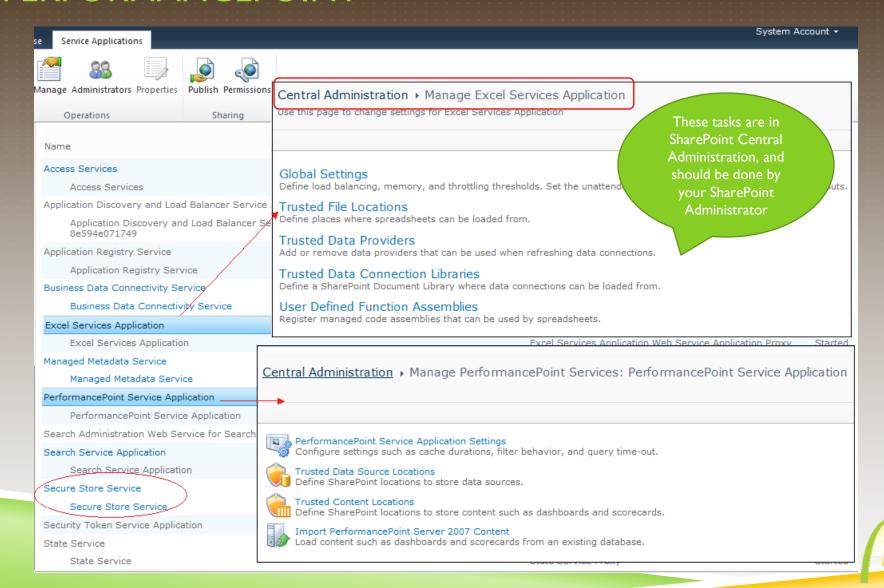




EXCEL SERVICES CAPABILITIES

- ► More secure sharing of workbooks, reliability and availability. A single version of the truth.
- **Business intelligence.** Workbooks connected to enterprise data sources can be published to the server and used in business intelligence dashboards and scorecards.
- **Extensibility.** Reusable logic that is contained in workbooks and user-defined functions is available for developers to implement in server-based applications.
- ► Use of Unattended Service Accounts. Excel Services relies on the Secure Store Service to store the encrypted unattended service account.
- ► Excel Services is now a Managed Service Application, and is managed thru SharePoint Central Administration.
- Slicer feature. The Slicer feature is a new type of data filter in Microsoft Excel 2010 that is interactive, flexible in design and layout, and always conveys the current filtering state. With these data filters more people benefit from the power of analyzing data using PivotTables and OLAP Functions

SET UP FOR EXCEL SERVICES AND PERFORMANCEPOINT



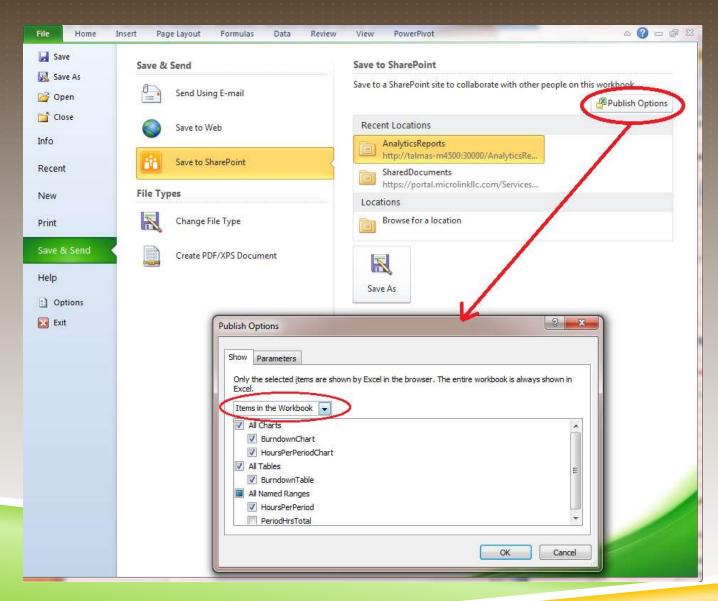
USING EXCEL COMPONENTS ON THE DASHBOARD

Once the Service Applications are configured in Central Administration, in order to use Excel components on your dashboards, take a couple of steps:

- Publish your Excel Workbooks to a SharePoint Library (Document or Reports Library preferred)
 - Name your items (charts and tables)
 - Choose the Publish Options
 - Select Items in the Workbook Option
- Use Excel Web Access Web Parts to expose that content on your dashboard

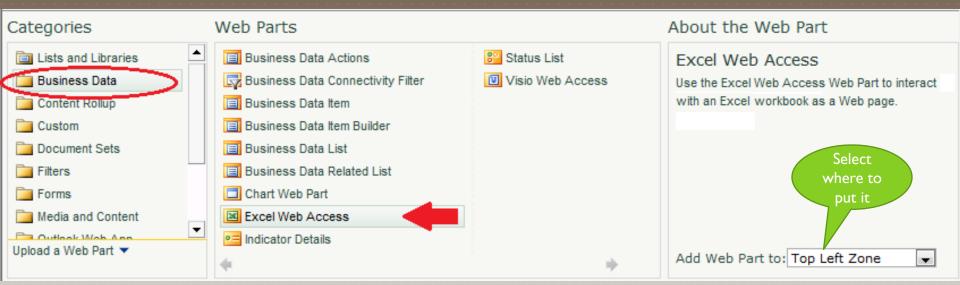


PUBLISHING EXCEL WORKBOOKS AND EXCEL SERVICES WEB PARTS



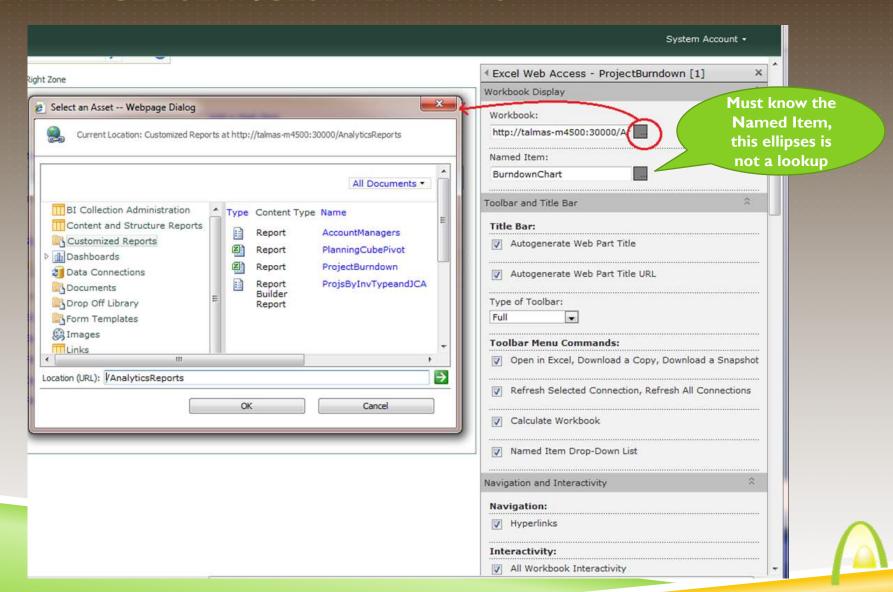


PUBLISHING EXCEL WORKBOOKS AND EXCEL SERVICES WEB PARTS





PUBLISHING EXCEL WORKBOOKS AND EXCEL SERVICES WEB PARTS

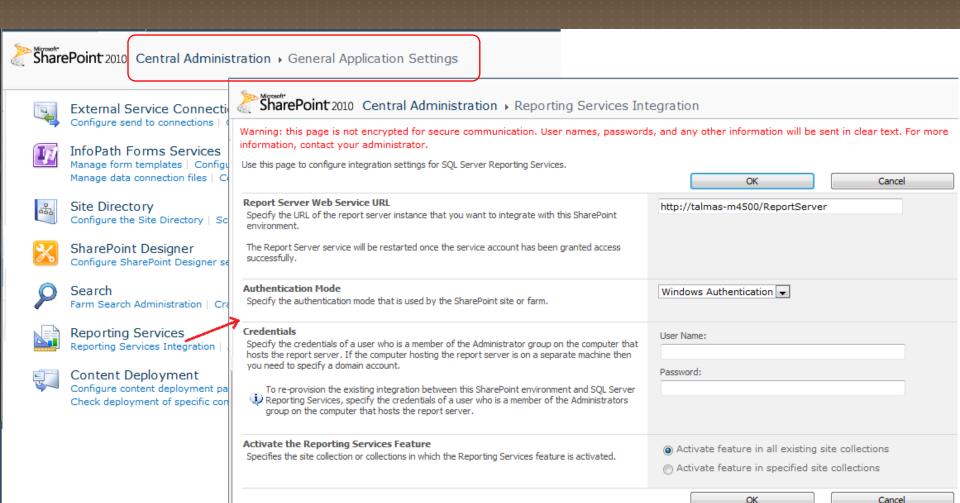


REPORTING SERVICES CAPABILITIES

- R2 has a new version of Report Builder, an end-user report creation tool.
- Lots of new charts, gauges, sparklines, visualizations including geospatial (mapping) capabilities.
- PowerPivot delivered as a result of project gemini.
- More precise control over chart size.
- Can use a variety of data sources in one report.
- Supports report subscriptions, including delivery to Outlook.
- Can be consumed in SharePoint or PerformancePoint.

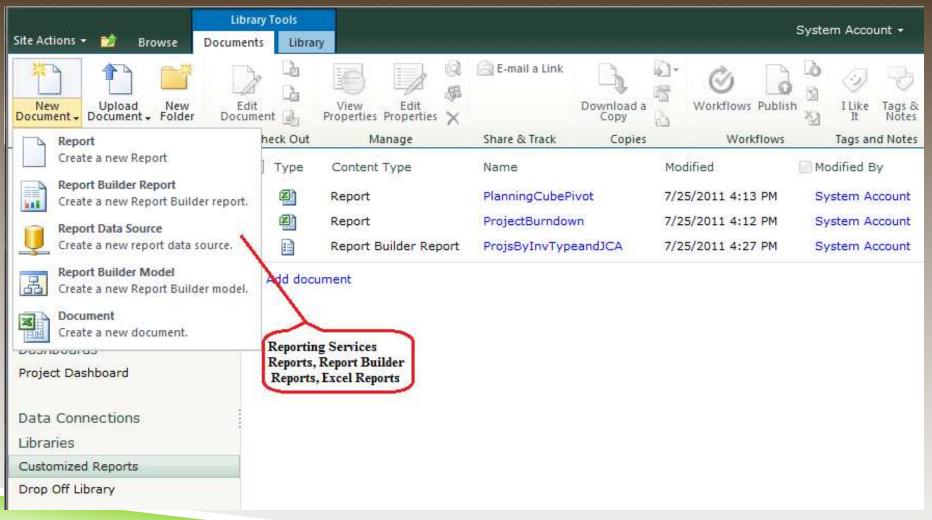


CONFIGURING REPORTING SERVICES INTEGRATION





REPORT LIBRARIES

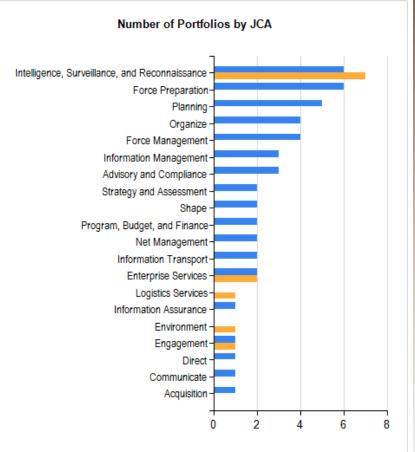




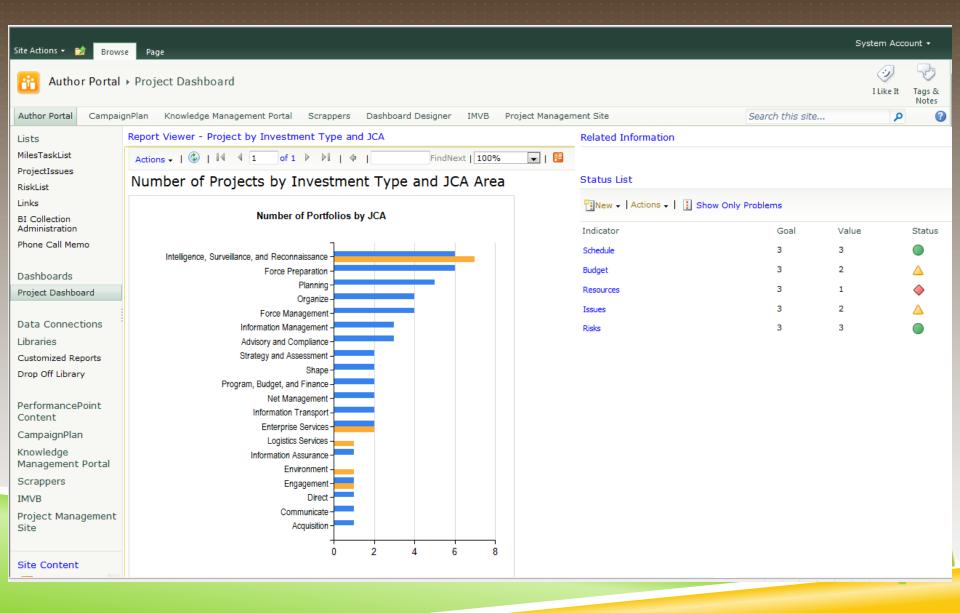
DISPLAY AS STAND-ALONE REPORT



Joint Capability Area	OEP-2	P-3	Total
Acquisition	1		1
Advisory and Compliance	3		3
Communicate	1		1
Direct	1		1
Engagement	1	1	2
Enterprise Services	2	2	4
Environment		1	1
Force Management	4		4
Force Preparation	6		6
Information Assurance	1		1
Information Management	3		3
Information Transport	2		2
Intelligence, Surveillance, and Reconnaissance	6	7	13
Logistics Services		1	1
Net Management	2		2
Organize	4		4
Planning	5		5
Program, Budget, and Finance	2		2
Shape	2		2
Strategy and Assessment	2		2
Total	48	12	60



REPORTING SERVICES REPORT AS WEB PART



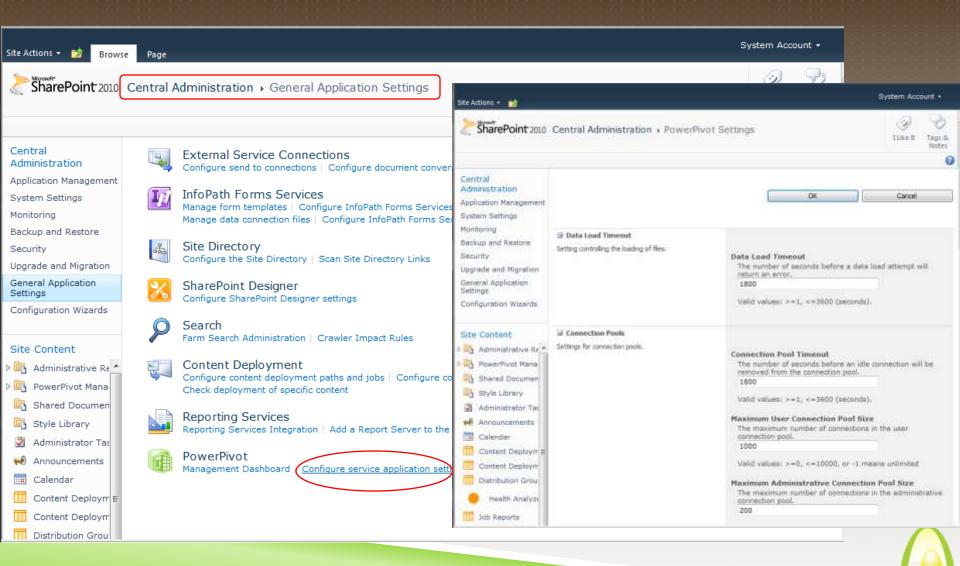
POWERPIVOT BENEFITS

- ► A PowerPivot report can be published as an interactive web app with a single click.
- ► The report itself takes less than 5 minutes to produce if you just want answers.
- ▶ Data preparation is essential, and may take less than 30 minutes to bring together multiple data sources.
- Reports based on your company's LOB data, up to hundreds of millions of rows, but still very fast (because of in-memory OLAP).
- ▶ Report will automatically refresh with new data as it becomes available.
- Access your workbook applications directly in the browser without having to download the workbooks with all their data to every workstation.

POWERPIVOT USES AND CONSIDERATIONS

- Can connect to a variety of data sources
 - ► SQL Server, Analysis Services, Access, Reporting Services, MS Azure DataMarket, Atom Data Feed, Excel File, Text File, MS Parallel Data Warehouse, Oracle, Teradata, Sybase, Informix, IBM DB2, Other
- ► Can quickly "mash-up" data from multiple sources without an ETL process
- Because all data is stored in memory, analysis and results are quick
- Extensive use of PowerPivot may increase your app server memory needs, and which app server it runs on
- PowerPivot can be integrated with Reporting Services and PerformancePoint
- Results displayed in SharePoint, but must have Excel 2010 PowerPivot Add-in

POWERPIVOT CONFIGURATION



POWERPIVOT SITE COLLECTION FEATURE

Site Actions ▼ 💅			System Account +
PerformancePoint Content	Assigns IDs to documents in the Site Collection, which can be used to retrieve items independent of their current location.	Acuvate	
CampaignPlan Knowledge Management Portal	Provides the content types required for creating and using document sets. Create a document set when you want to manage multiple documents as a single work product.	Deactivate	Active
Scrappers IMVB	In Place Records Management Enable the definition and declaration of records in place.	Activate	
Project Management Site	Library and Folder Based Retention Allows list administrators to override content type retention schedules and set schedules on libraries and folders.	Activate	
Site Content BI Collection Ad *	Open Documents in Client Applications by Default Configures links to documents so they open in client applications instead of Web applications, by default.	Activate	
Content and Str	PerformancePoint Services Site Collection Features Features enabling the PerformancePoint Services site including content types and site definitions for this site collection.	Deactivate	Active
Dashboards Data Connection	PowerPivot Feature Integration for Site Collections Extends the capabilities of site collections using PowerPivot for SharePoint	Deactivate	Active
Documents Drop Off Library Form Templates	Publishing Approval Workflow Routes a page for approval. Approvers can approve or reject the page, reassign the approval task, or request changes to the page. This workflow can be edited in SharePoint Designer.	Deactivate	Active
Images Links	Report Server Integration Feature Enables rich reporting using Microsoft SQL Server Reporting Services.	Deactivate	Active
MilesTaskList Pages	Reporting Creates reports about information in Microsoft SharePoint Foundation.	Deactivate	Active
PerformancePoil Phone Call Mem	Search Server Web Parts This feature uploads all web parts required for Search Center.	Activate	
ProjectDashboa	SharePoint 2007 Workflows Aggregated get of out of how workflow footures provided by SharePoint 2007	Deactivate	Active

POWERPIVOT ON THE DASHBOARD

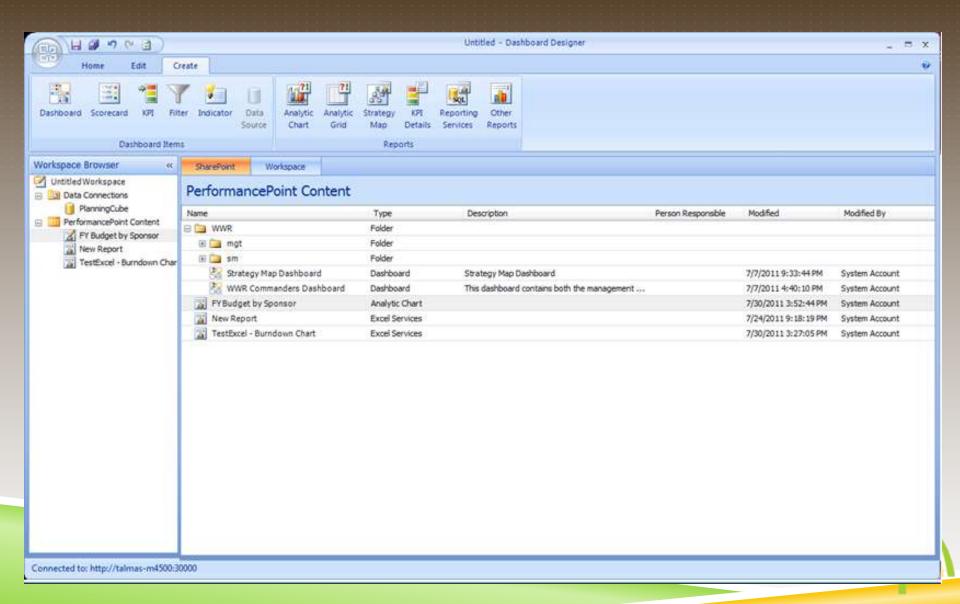


PERFORMANCEPOINT BENEFITS

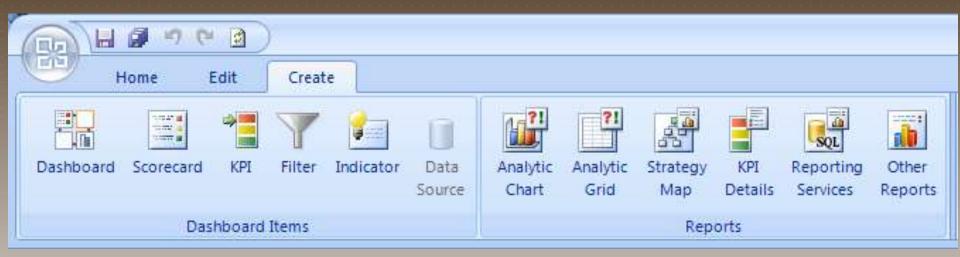
- Great tool for organization-wide performance management initiatives
- Synchronizes with PerformancePoint Content Library in SharePoint
- ► Interactive Reports able to drill down on reports created from OLAP (Cube) data sources
- KPIs can have multiple targets, and appear on multiple scorecards
- Supports Strategy Maps (Visio)
- New Decomposition Tree display was ProClarity feature
- Improved Sort, Filter, View capabilities



PERFORMACEPOINT DASHBOARD DESIGNER



PERFORMACEPOINT CREATE RIBBON MENU

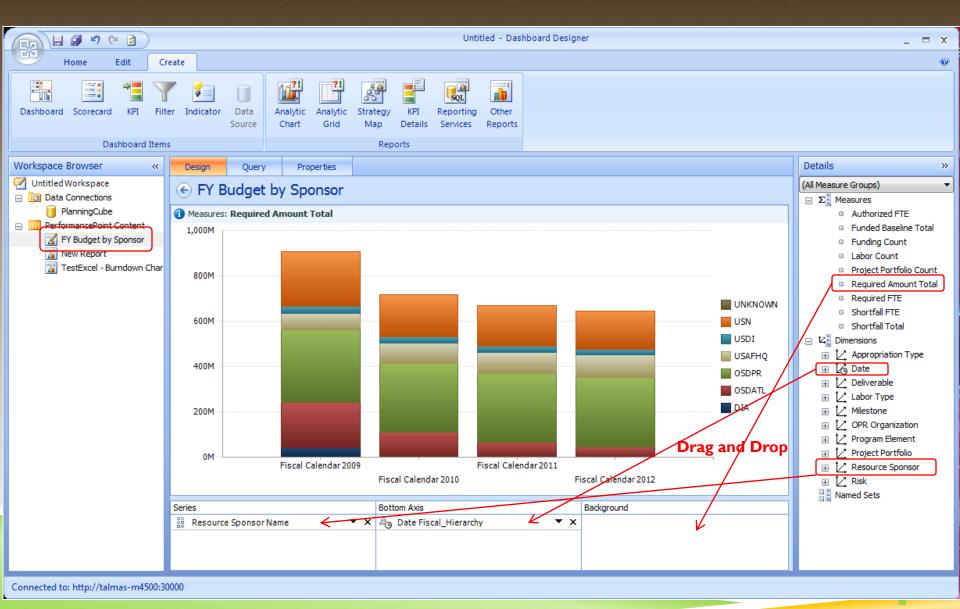


Create all your PP objects from here, starting with Data Source. Then build KPIs and Scorecards, and many types of Reports. Strategy Map Reports are special —Visio drawings that have been imported and connected to a scorecard, coloring the diagrams shapes with the color of the KPI indicator.

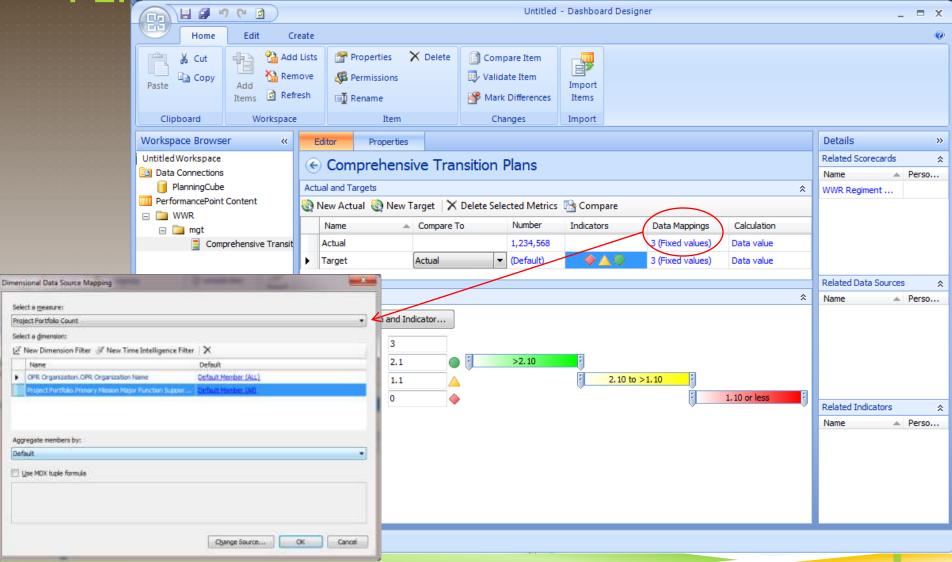
Analytic Chart and Grid Reports built using an OLAP (SSAS) data source have special, interactive features like drill-down and decomposition tree.



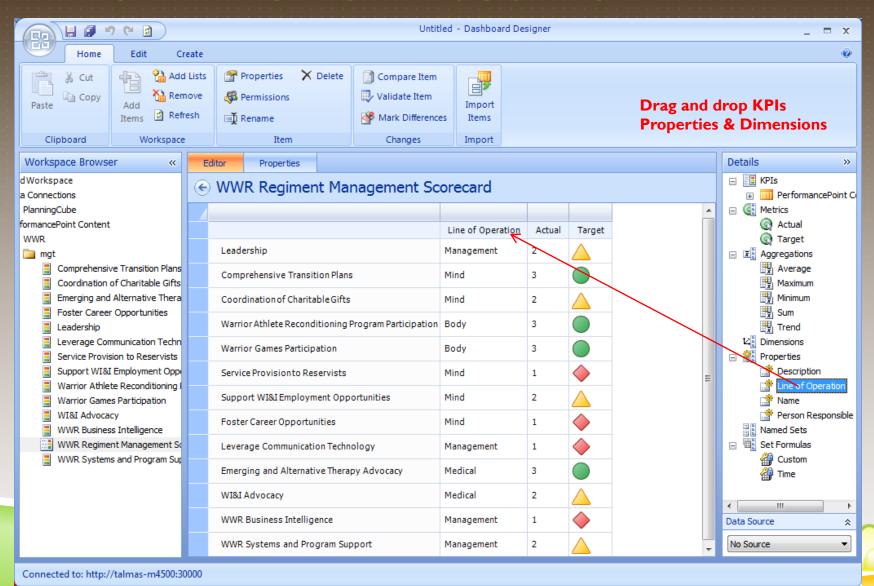
PERFORMANCEPOINT DASHBOARD DESIGNER



PERFORMANCEPOINT KPIS



PERFORMANCEPOINT SCORECARD



PERFORMANCEPOINT AND VISIO - STRATEGY MAPS

Strategy Maps are a report type in PerformancePoint, a special combination of a Visio Diagram that has been linked to a Scorecard. The diagram can contain any shapes desired, and will take on the coloration of the KPI indicator it is linked to on the scorecard.



The Regiment provides and facilitates assistance to wounded, ill, and injured Marines, sailors attached to or in support of Marine units, and their family members in order to assist them as they return to duty or transition to civilian life.

Support all Marine Corps leaders in the care and support of recovering Marines and their families in order to promote morale, esprit de corps. and self-sufficiency

> 1.1 Provide Wi&I Marines with dedicated and caring personnel to help them define and achieve their individual goals for recovery. network institution, and reintegration

1.2 Empower WIBI Marines and families

13 Prompte the spiritual, relibious, moral, and personal well-being of WISI Mariney, their family

1.4 Provide a robust family support program

1.5 Optimize the ability to fully support the Reserve Component

1.6 Provide William Mannes, and family nembers anytime access to consistent, accurate, relevant, and timely information.

Set up wounded, ill, and injured Marines for transition successwhether they return to duty or reintegrate into the civilian community

> 2.3 Expand employment and education support capabilities

2.2 Enhance, publicize, and promote the capability of the District Injured Support Cells (DISCs)

2.3 Collaborate with the Department of Veterans

2.4 Ensure that WIBI Marines and family members reintegrating into the civilian community, have a structure to support recovery, and provide access to their local support programs and PREGUEERS

2.5 Develop long-term coordination with Veterans Service Organizations (VSOs)

Expand strategic communications to capitalize on new technologies, improve awareness, and sustain charitable giving and governmental support

3.1 Improve internal and external audience awareness of the mission and support capabilities of the WWR

3.2 Cultivate and maintain rapport with Congress (primarily Defense and Veterans Affairs Committeest and Executive Branch appendies

Foster existing and establish new partnerships with public and private medical providers (e.g., BUMED, VA, DOD) in order to coordinate access to available and emerging treatment options, with a specific focus on TBI, PTS, and regenerative medicine

4.1 Cultivate pertnerships and a network of resources to ensure that WI&I Marines and their families have access to all invallable service providers

4.2 Educate Marines and family members on Post-Traumatic Stress and Traumatic Brain Injury

Manage resources, funding, and infrastructure in order to sustain program efficacy

5.1 Effectively and efficiently manage operational resources and resource requirements

5.2 Create, publish, and implement comprehensive policies, procedures, and accountability practices

5.3 Continuously evaluate organizational structure

5.4 Assess the current and future needs of WISH Marine

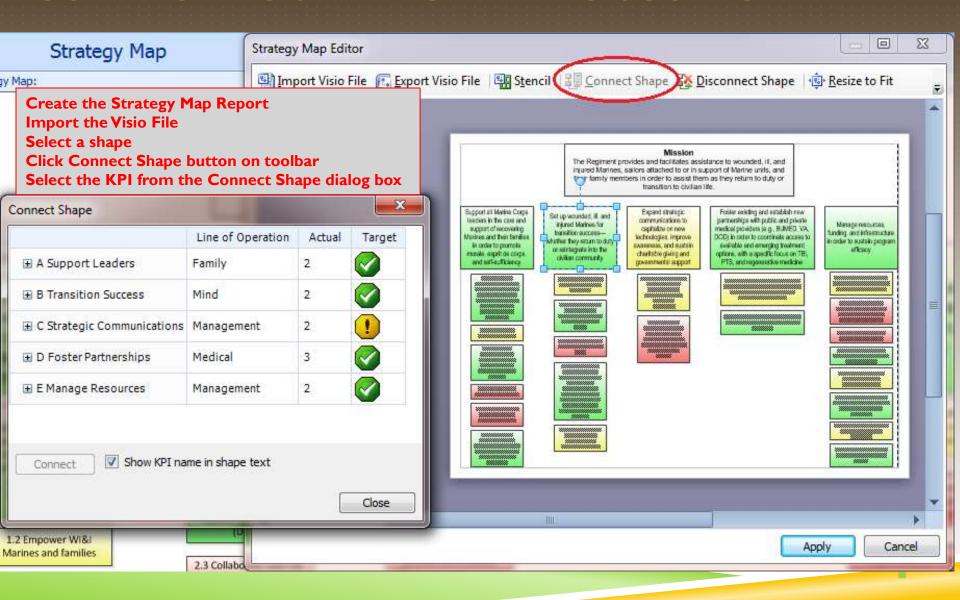
5.5 Develop and deploy a comprehensive care management system

5.6 Ensure all WWR staff are knowledgeable of all available resources, policies, and procedures

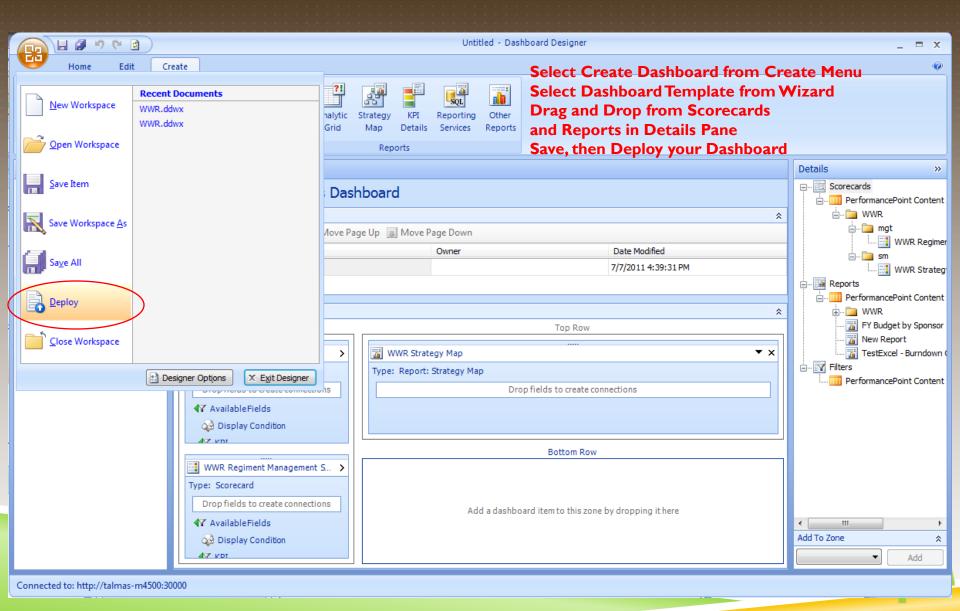
5.7 Update the WWR website and create new doline applications

5.8 Provide comprehensive. timely and responsive legal wpport

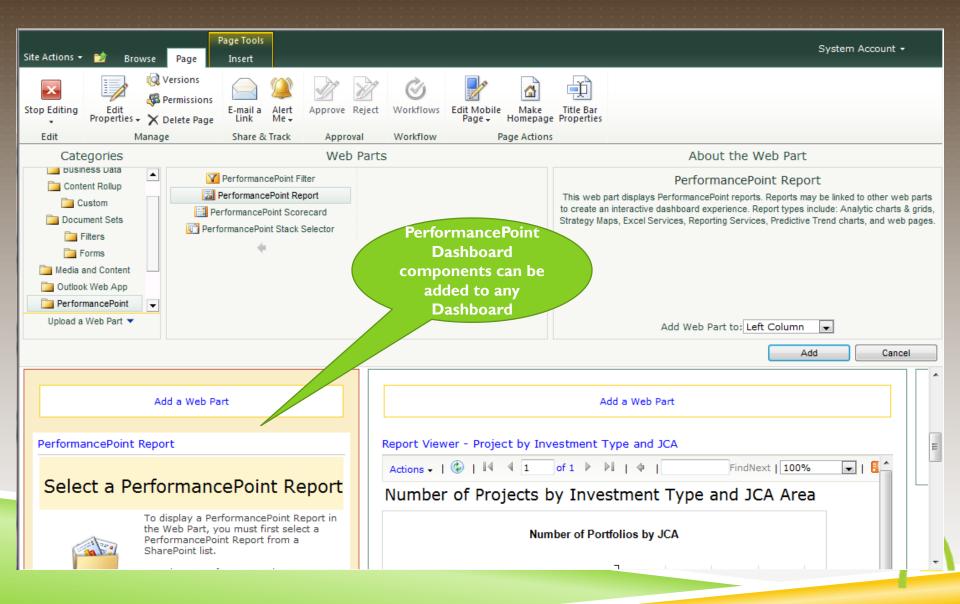
CONNECTING STRATEGY MAP TO SCORECARD



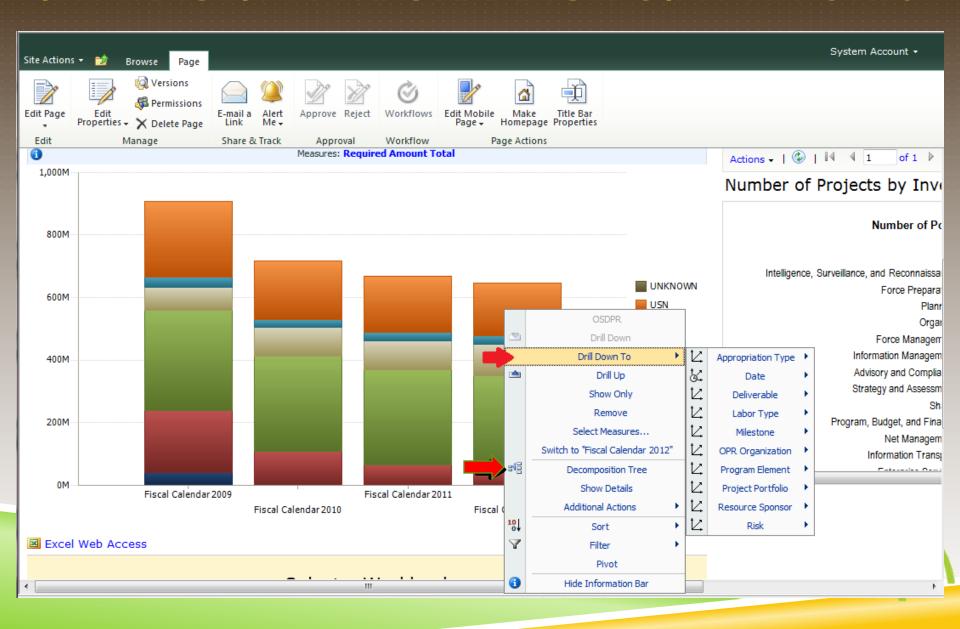
DEPLOYING PERFORMANCEPOINT DASHBOARDS



USING PERFORMANCEPOINT WEB PARTS

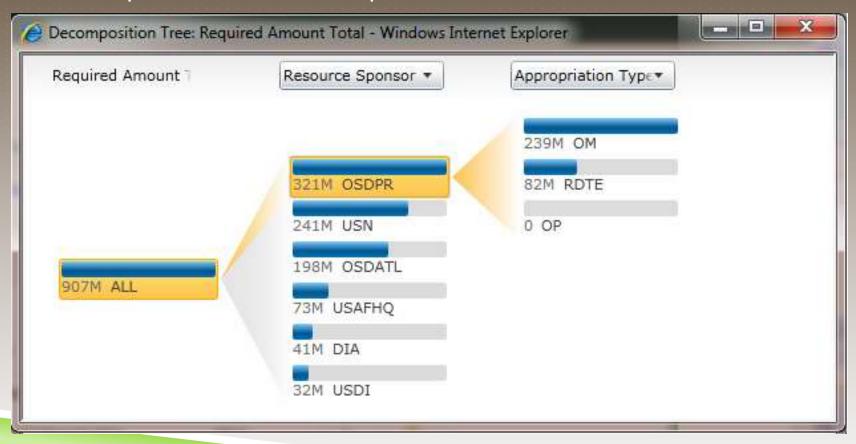


INTERACTIVE PERFORMANCEPOINT REPORTS



INTERACTIVE PERFORMANCEPOINT REPORTS

Decomposition Tree – shows part to whole





PUTTING IT ALL TOGETHER TO GET THE POINT ACROSS

Use the best tool for the visualization you want to create:

- Sparklines, gauges, charts in Excel or Report Builder
- Interactive charts with drill-down and decomposition in PerformancePoint
- KPIs/Scorecards in either PerformancePoint (Program) or Excel (One-Off)
- PowerPivot requires Excel Add-in and Analysis Services 2008R2 Add-in, but delivers on-demand self-service business intelligence and analytics



PUTTING IT ALL TOGETHER TO GET THE POINT ACROSS

To Wrap It All Up, Here Are Some Best Practices:

- Begin with the end in mind (thanks to Steven Covey). A little planning will help ensure you are happy with the results.
- State the purpose of the dashboard. What questions must it answer?
- Decide on the display components you want on your dashboard.
- Define your data sources.
- Determine the best visualization for each component and which tool to use.
- Build a dashboard page during prototype to get feedback and refine iteratively.
- Keep stakeholders engaged thru-out the process.
- Set up a project dashboard with various display components use
 it to demonstrate possibilities to the stakeholders.

QUESTIONS?

Tricia Wilcox Almas

Director, Business Intelligence

Advanced Data - SNVC

- Email me to get your dashboard design template



Linked Join Me on LinkedIn TriciaWilcoxAlmas@yahoo.com

