



POWER VIEW, POWERPIVOT, AND PERFORMANCEPOINT REPORTING THRU SHAREPOINT

SHAREPOINT SATURDAY VIRGINIA BEACH JANUARY 7, 2013

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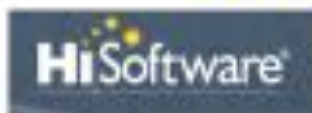


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AGENDA

- The Evolution of Microsoft Self-service Business Intelligence
- PerformancePoint – we've come a long way since Business Scorecard Accelerator!
- PowerPivot in Excel and SharePoint 2010
- Power View in Excel and SharePoint 2013
- Visualizing Information using Power View – The Olympics

WHY SHOULD YOU LISTEN TO ME?

Consultant



Instructor

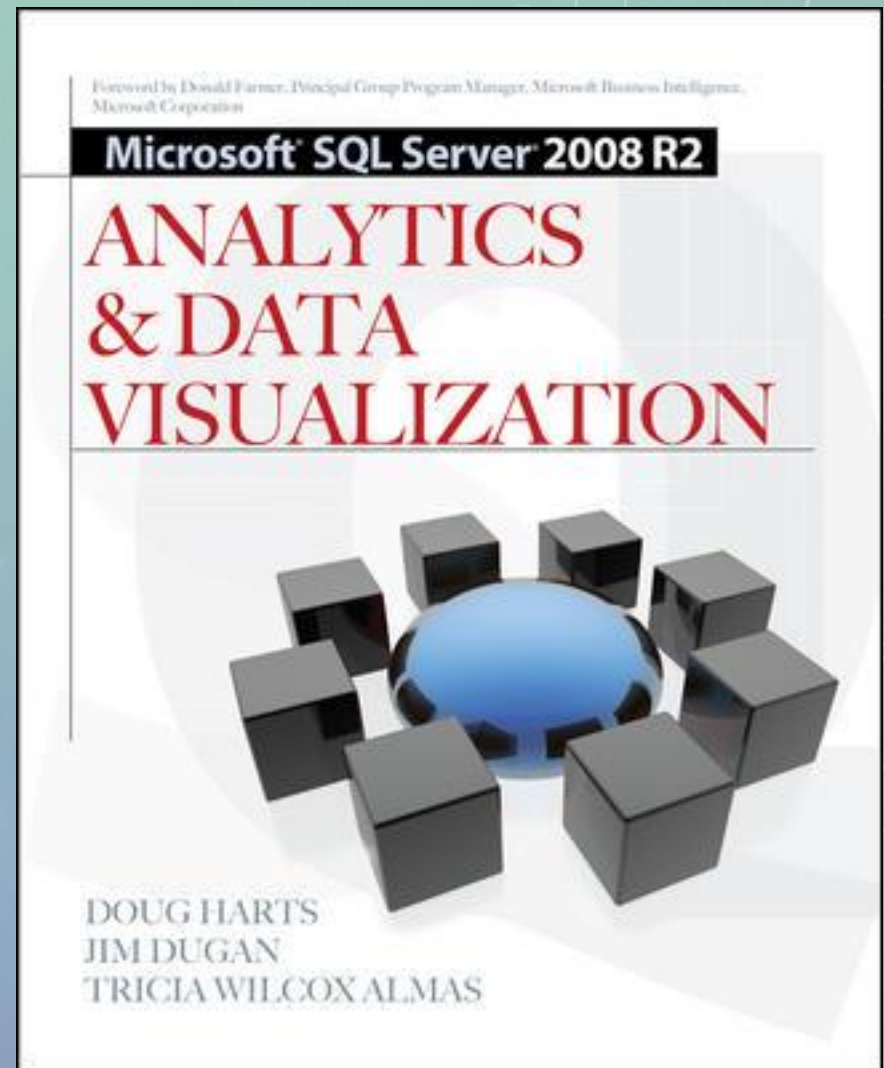


Published Author

Microsoft® SQL Server 2008 R2 Analytics & Data Visualization, McGraw-Hill,

Doug Harts, Jim Dugan, Tricia Wilcox Almas

<http://www.mhprofessional.com/contributor.php?id=44423>



THE EVOLUTION OF MICROSOFT SELF SERVICE BI

- In most organizations, there are a small number of end users who are comfortable building Excel PivotTables and PivotCharts. Excel Services makes PivotTables easy to consume, but the workbooks published to Excel Services are fairly fixed in terms of layout and interactivity.
- The number of users who can design a report in SSRS is very small, even with tools such as Report Builder.
- PerformancePoint Services provides intuitive charts and grids, but their design and deployment is usually done by an IT professional. Plus, there's no easy way for end users to save personal views.
- Power View not only addresses these important usability gaps but also provides its own unique capabilities.

PERFORMANCEPOINT BENEFITS

- Great tool for organization-wide performance management initiatives
- Synchronizes with PerformancePoint Content Library in SharePoint 2010 and 2013
- 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
- Developer interface – not necessarily an end-user tool

POWERPIVOT USES AND CONSIDERATIONS

- Introduced in SharePoint 2010 with SQL Server 2008R2
- 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 a SharePoint PowerPivot Gallery, but must have Excel 2010 PowerPivot Add-in. In Excel 2013 no add-in but must enable the feature

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.

EVOLUTION OF POWERPIVOT AND EXCEL 2013

- Excel 2013, SharePoint 2013 and SQL Server 2012 Service Pack 1 are now available. Building on SQL Server 2012 capabilities, a major set of Business Intelligence capabilities are delivered through Power View, a new end user visualization tool.
- This release enables end users to unlock new insights with data discovery across their organization while providing IT the necessary visibility and oversight to deliver credible, consistent data.
- This release of Excel enables business users to do self-service Business Intelligence directly in the client, which now becomes a complete and powerful self-service BI tool - users have all they need in one familiar application in order to do data modeling, exploration and visualization of the data.
- Also, SharePoint 2013 supports corporate deployments and significantly improves governance and compliance over the self-service BI assets. SQL Server 2012 SP1 is required for server side compatibility.

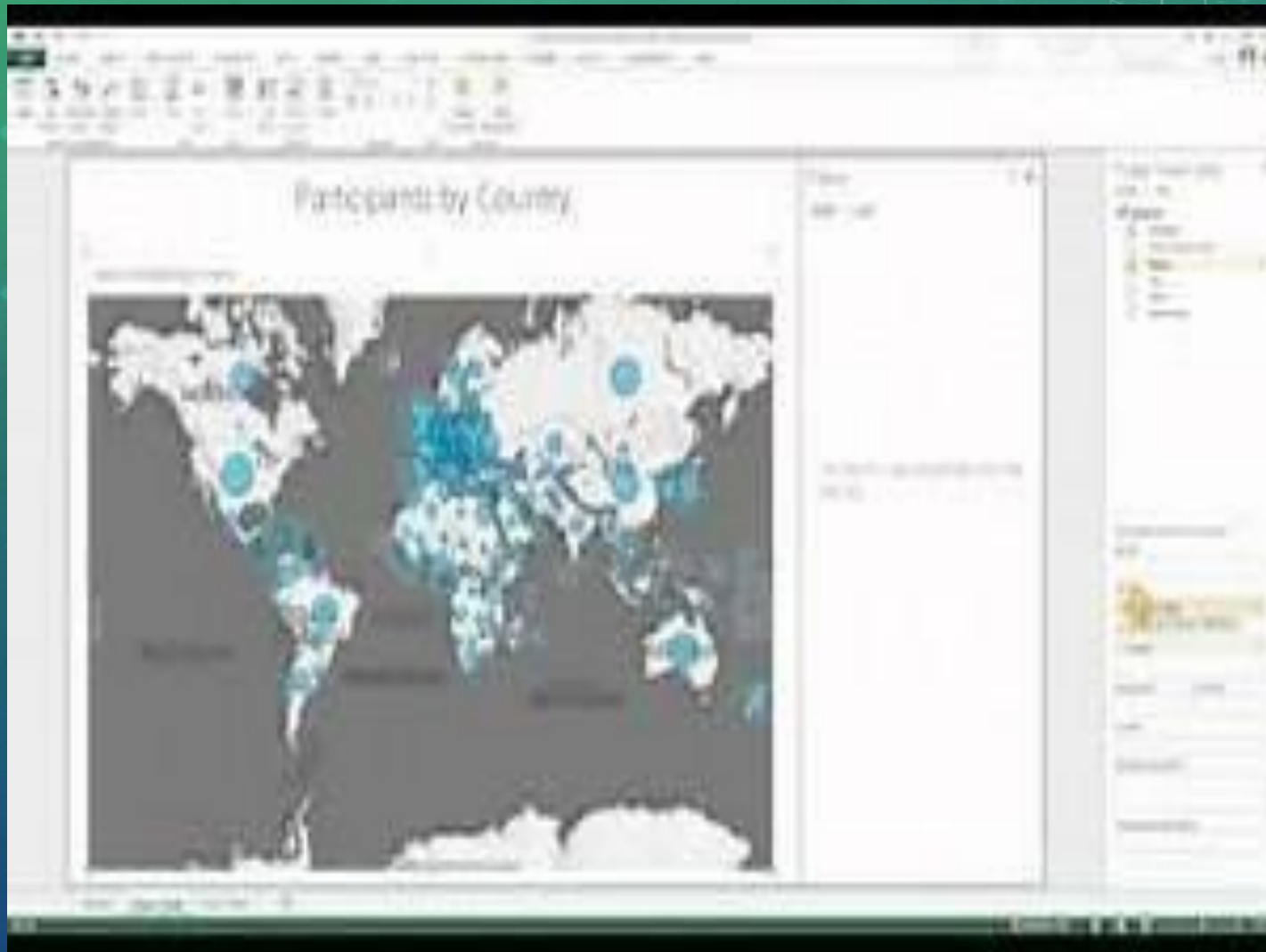
POWER VIEW AND EXCEL 2013

- Power View reports are created in a web browser. Because Power View leverages Microsoft Silverlight, there's no desktop application. Silverlight 5.0 runtime must be installed on the client workstation.
- Launch Power View from a SharePoint library, using a PowerPivot workbook as the data source.
- Power View can also be launched by clicking a Report Data Source (RDS) file or a Business Intelligence Semantic Model (BISM) file, a new type of data connection.
- The RDS or BISM file is stored in a SharePoint document library and points to either a PowerPivot workbook or a tabular mode database.
- Microsoft plans to support connectivity to SSAS running in multidimensional mode in a future service pack.

POWER VIEW EXAMPLE – 2012 OLYMPICS

- Sean Boon, Sr Product Manager @ Microsoft, and Tech Editor of my book, wrote a blog series introducing Power View in Excel 2013, and that is what we will explore today
- Blog series:
<http://blogs.msdn.com/b/seanboon/archive/2012/07/30/visualizing-the-olympics-with-power-view-in-excel-2013-day-1.aspx>
- Example Files:
<https://skydrive.live.com/?cid=209305deacf224d0&id=209305DEACF224D0%211765>
- Excel 2013 Consumer Preview:
<http://www.microsoft.com/office/preview/en>

DAY 1



DAY 1 HIGHLIGHTS

- Create a Power View Sheet in Excel
- Use an Excel table as data source
- Create a Map report – Athletes by Country
- Change to Bubble by adding count of name = bubble size
- Zoom and Pan map
- Hover over point details

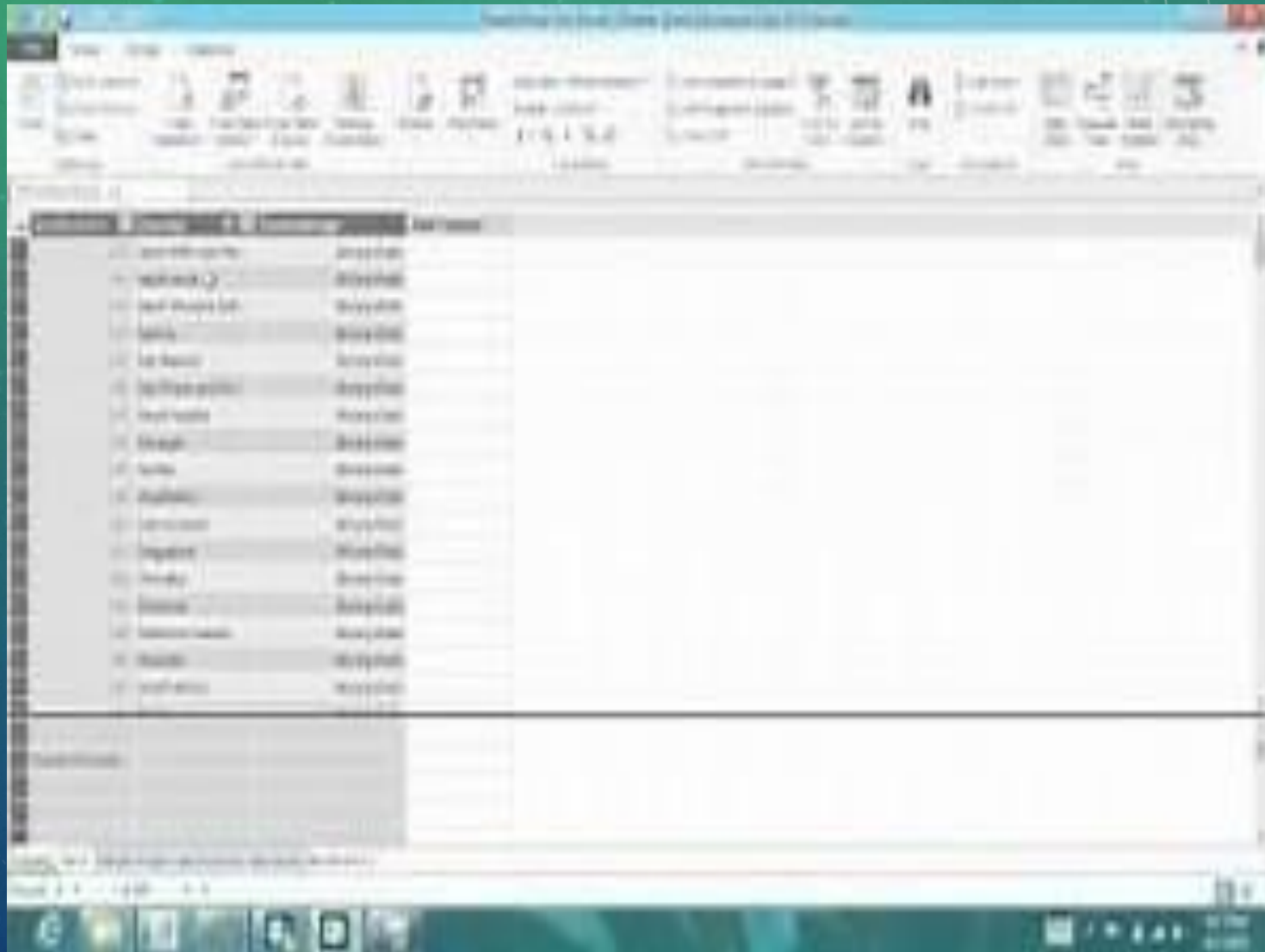
DAY 2



DAY 2 HIGHLIGHTS

- 6 clicks and one drag to create Map report
- Refine visualization by adding dimensions – add gender to change from Bubbles to Pie charts
- Add tiles to easily aggregate information by category – Sport Name

DAY 3



DAY 3 HIGHLIGHTS

- Added PowerPivot to the mix (no longer a sep. download)
- Add images to the mix (binary data stored in SQL Server table)
- Updated Tiles so they now display Sport Name and Pictogram

DAY 4



DAY 4 HIGHLIGHTS

- Displayed Power View functionality in Excel 2013 “fat” client
- Showed same Power View in Office 365 online experience
- Remarkably similar
- Can edit only in “fat” client

POWER VIEW FEATURES

- One data model per Power View Sheet, but can have multiple data models and multiple PV Sheets in one workbook
- Modify the internal Data Model without leaving the Power View sheet
- Supported by Excel Services, Excel Web App and Office 365
- Maps, Pie Charts, KPIs
- Hierarchies
- Drill up and Drill down
- Report styles and themes
- Backgrounds and images
- Hyperlinks
- Printing support

POWER VIEW VISUALIZATIONS

- In Power View in SharePoint 2013 and in Excel 2013, you can quickly create a variety of data visualizations, from tables and matrices to bar, column, and bubble charts, and sets of multiple charts. For every visualization you want to create, you start with a table, which you then easily convert to other visualizations, to find one best illustrates your data.
- Chart Types: Pie, Scatter, Bubble, Maps, Small Multiples, Matrices, Cards, Tiles

Picnic supplies

Category: Dessert



1

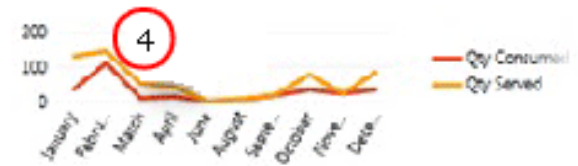
croissant



3

brown
Color
Hot
Serve

Qty Consumed, and Qty Served by Month Name



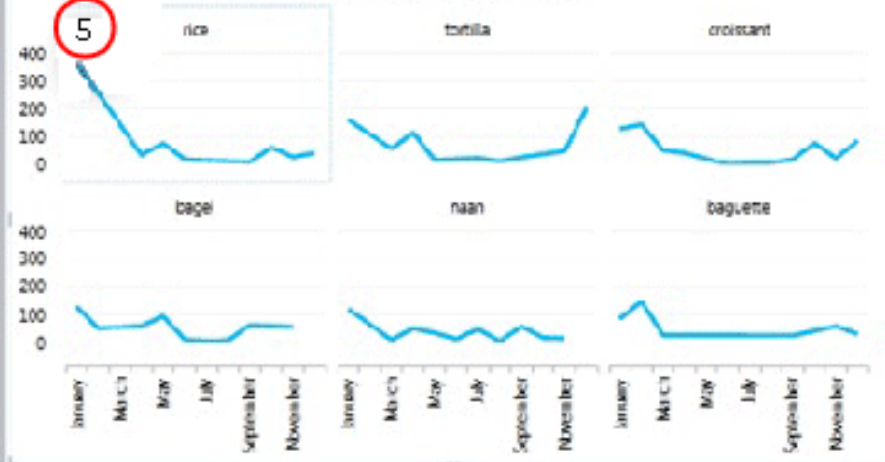
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2



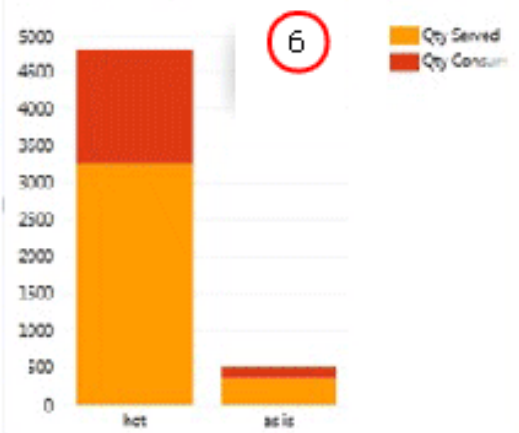
sort by Qty Served ▾ desc

Qty Served by Name, and Month Name



5

Qty Served, and Qty Consumed by Serve



6

1. Slicer (Bread Selected)
2. Tiles – flow navigation (croissant)
3. Card in a tile container
4. Line Chart
5. Multiples
6. Column Chart

EXCEL 2013 POWER VIEW DATA SOURCE

- Data within Excel 2013 can be a data source for Power View
- When tables and relationships are added, Excel is creating a data model behind the scenes
- Edit in PowerPivot for more sophisticated data models
- PowerPivot tabular model available as Power View data source
- Data models act as a bridge between the complexities of back-end data sources and your perspective of the data

EXCEL 2013 ARCHITECTURE

- Thanks to Colin Banfield for illustrating
- <http://www.powerpivotpro.com/2012/09/excel-2013-implications-for-powerpivot-and-excel-data-import-userspart-i/>

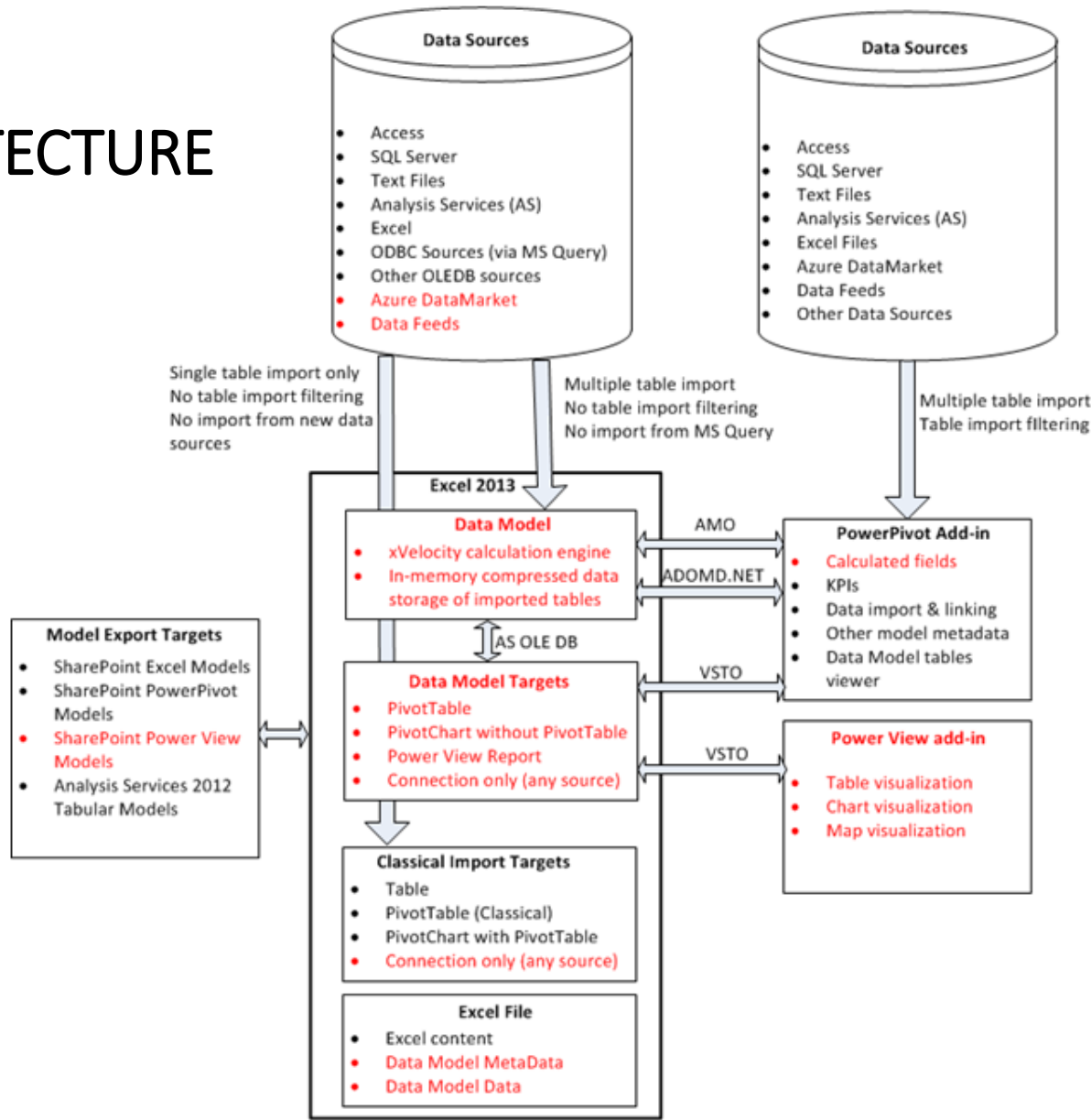
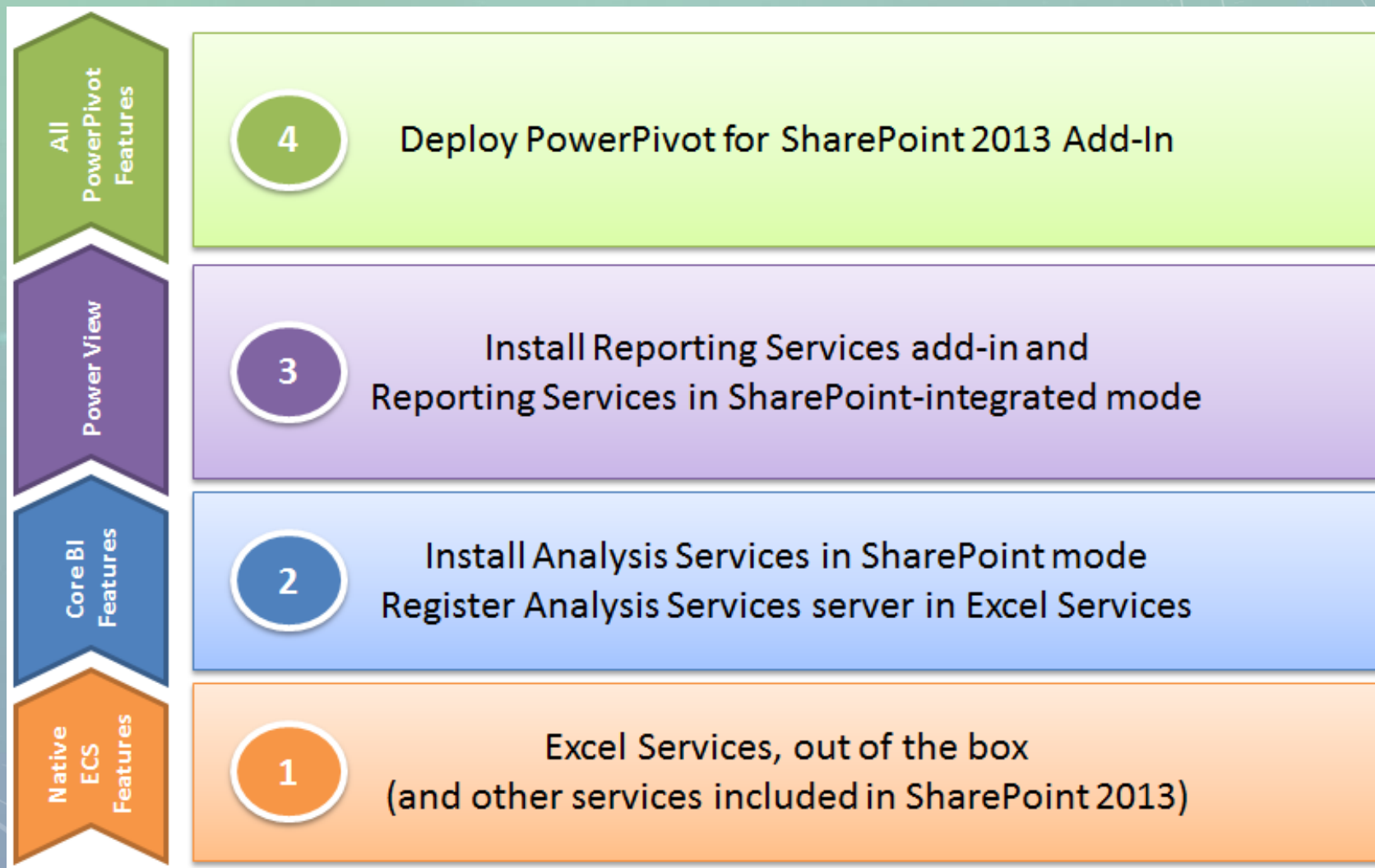


Figure 2 – Excel 2013 BI Architecture

The main changes in figure 2 compared to figure 1 are the built-in xVelocity engine (the Data Model) and the Power View add-in.

SHAREPOINT 2013 BI ENABLEMENT



REFERENCE MATERIAL – GOOD BOOKS AND WEBSITES

<http://www.PowerPivot.com>

<http://powerpivot-info.com>

<http://powerpivotgeek.com>

<http://powerpivotpro.com>

<http://blogs.msdn.com/powerpivot>

<https://datamarket.azure.com>



QUESTIONS?

Tricia Wilcox Almas

SNVC

- **talmas@thesharepointpeople.com**
- Email me to get your dashboard design template



Join Me on LinkedIn

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Blog: <http://triciawilcoxalmas.wordpress.com>

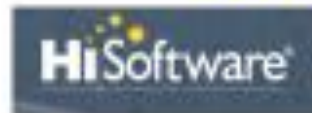


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