

Analyze & Visualize SQL Server Data w/ PowerPivot, PowerView & Excel

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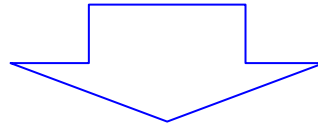
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Speaker



Wylie Blanchard

- SQL Server Database Consultant
- MCSE: SQL Server Data Platform
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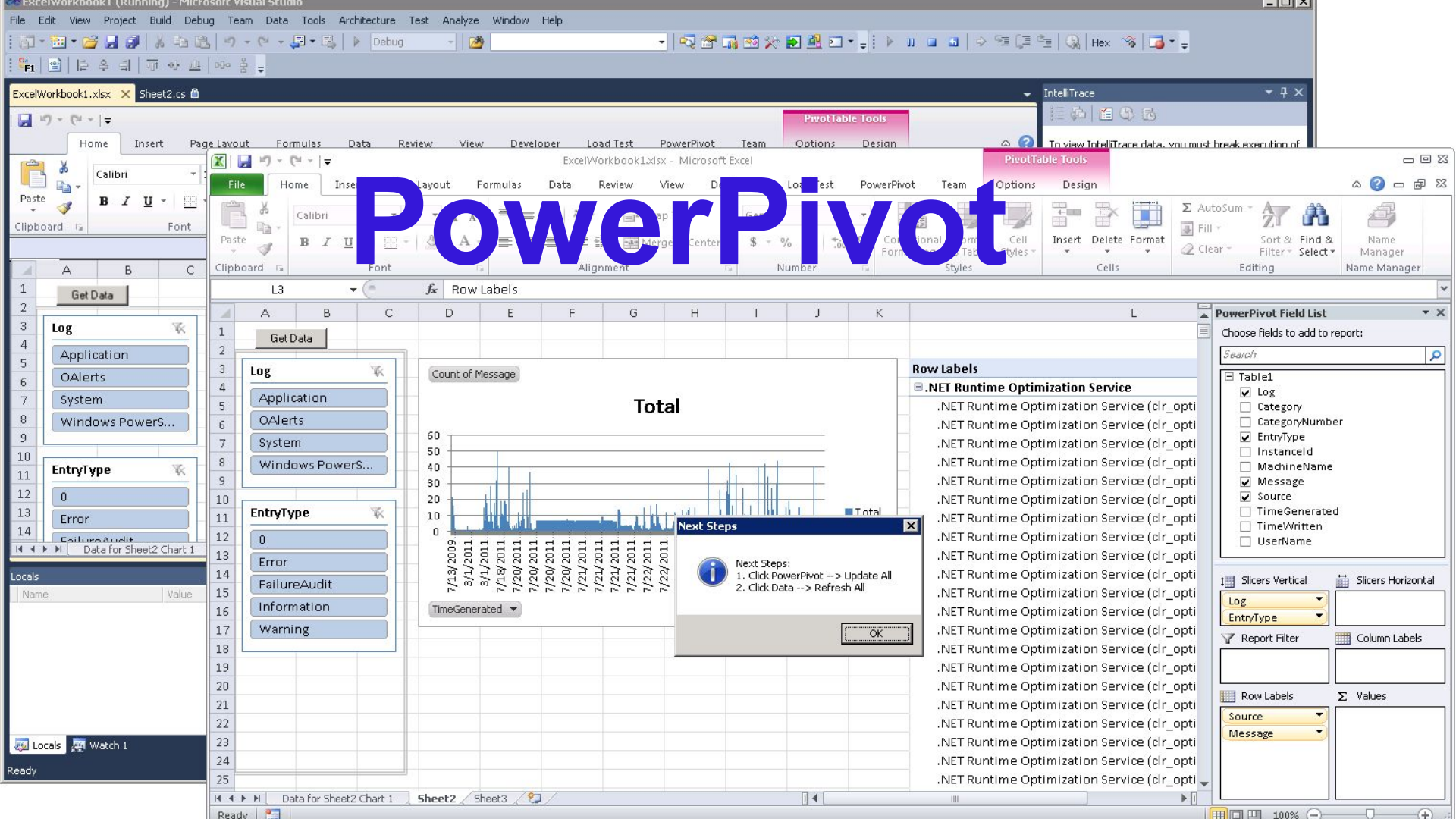


- Pizza Connoisseur (self proclaimed)

Presentation Summary

Your end users want to analyze data in your data warehouse. They could deal with the learning curve of SSAS but they'd prefer to utilize a familiar application like MS Excel.

Welcome PowerPivot, a tool that retrieves data from your data warehouse by combining the power of SSAS models and your SQL Server Data warehouse within the familiar interface of MS Excel.



What is PowerPivot

- Extends MS Excel Data Models
- Allows users to conduct powerful business intelligence (BI) analysis with a familiar tool
 - Quickly import millions of rows
 - Create relationships between different data sources
 - Use DAX (Data Analysis Expressions) language to create calculated fields (similar to excel formulas)

Why Use PowerPivot for Excel

- Self Service Business Intelligence tool for experienced MS Excel professionals
- PowerPivot is NOT new to excel users, it's just an extension of what you already know
- Table Relationships are more efficient than VLOOKUP



Faster, Bigger, Smaller

- Calculates formulas faster than excel spreadsheet
- Import large data sets without “row import limitations”
- Enhance compression for smaller file sizes

Brief History - PowerPivot

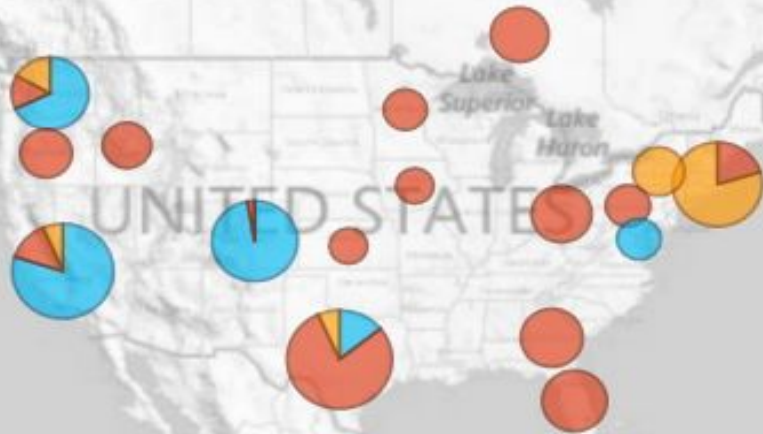
- 2006 Amir Net introduced a BI “sandbox” concept that allows BI applications to be created easily
 - Originally intended for MS Access, not Excel
 - Conceived to utilize in-memory for fast processing
- 2010 Microsoft released **PowerPivot for Excel** and **PowerPivot for SharePoint** with the release of Microsoft SQL Server 2008 R2

Power Pivot's Growth

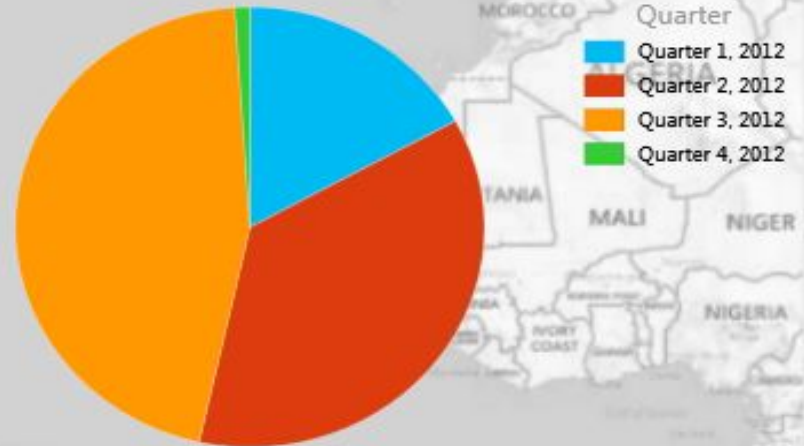
- Microsoft renamed PowerPivot as "Power Pivot"
 - (note the spacing in the name)
- In Excel 2010 & 2013, it is available as an Add-In
- In Excel 2016, it is included natively in the application in the data tab on the ribbon



Power View



Customer due by quarter



Explore, Visualize & Present your data

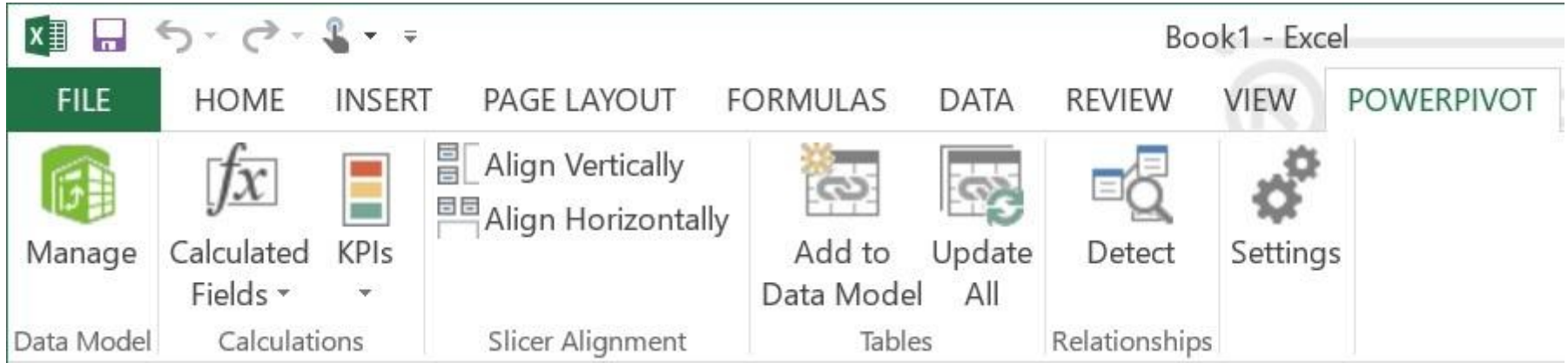
- Power View Enhances how you view data
 - Interactive dashboards
 - Connect to different data models in one workbook
- New Visualization options
 - Maps
 - Key performance indicators
 - Use of Hierarchies

Demo



Demo Objective:

Review PowerPivot MS Excel add-in



Demo Objective:

Import Data into Excel w/ PowerPivot

Table Import Wizard

Select Tables and Views

Select the tables and views that you want to import data from.

Server: LAPTOP-P3AJK7V7

Database: AdventureWorksDW2012

Tables and Views:

<input type="checkbox"/>	Source Table	Schema	Friendly Name	Filter Details
<input checked="" type="checkbox"/>	AdventureWorksDWBuildVersion	dbo		
<input type="checkbox"/>	DatabaseLog	dbo		
<input type="checkbox"/>	DimAccount	dbo		
<input type="checkbox"/>	DimCurrency	dbo		
<input checked="" type="checkbox"/>	DimCustomer	dbo	Customer	
<input checked="" type="checkbox"/>	DimDate	dbo	Date	
<input type="checkbox"/>	DimDepartmentGroup	dbo		
<input type="checkbox"/>	DimEmployee	dbo		
<input checked="" type="checkbox"/>	DimGeography	dbo	Geography	
<input type="checkbox"/>	DimOrganization	dbo		
<input checked="" type="checkbox"/>	DimProduct	dbo	Product	
<input checked="" type="checkbox"/>	DimProductCategory	dbo	Product Category	
<input checked="" type="checkbox"/>	DimProductSubcategory	dbo	Product Subcategory	
<input type="checkbox"/>	DimPromotion	dbo		
<input type="checkbox"/>	DimReseller	dbo		

Select Related Tables Preview & Filter

< Back Next > **Finish** Cancel

Demo Objective:

Create a PivotTable using PowerPivot

Book1 - Excel

Wylie Blanchard

Order Quantities by Model Name

ModelName	OrderQuantity
All-Purpose Bike Stand	249
Bike Wash	908
Classic Vest	562
Cycling Cap	2190
Fender Set - Mountain	2121
Half-Finger Gloves	1430
Hitch Rack - 4-Bike	328
HL Mountain Tire	1396
HL Road Tire	858
Hydration Pack	733
LL Mountain Tire	862
LL Road Tire	1044
Long-Sleeve Logo Jersey	1736
ML Mountain Tire	1161
ML Road Tire	926
Mountain Bottle Cage	2035

Filters
VIEW

To filter the view, drag fields from the field list.

Power View Fields

ACTIVE | ALL

- Freight
- OrderDate
- OrderDateKey
- OrderQuantity
- ProductKey
- ProductStandardCost
- PromotionKey
- RevisionNumber
- SalesAmount
- SalesOrderLineNumber
- SalesOrderNumber

Drag fields between areas below:

FIELDS

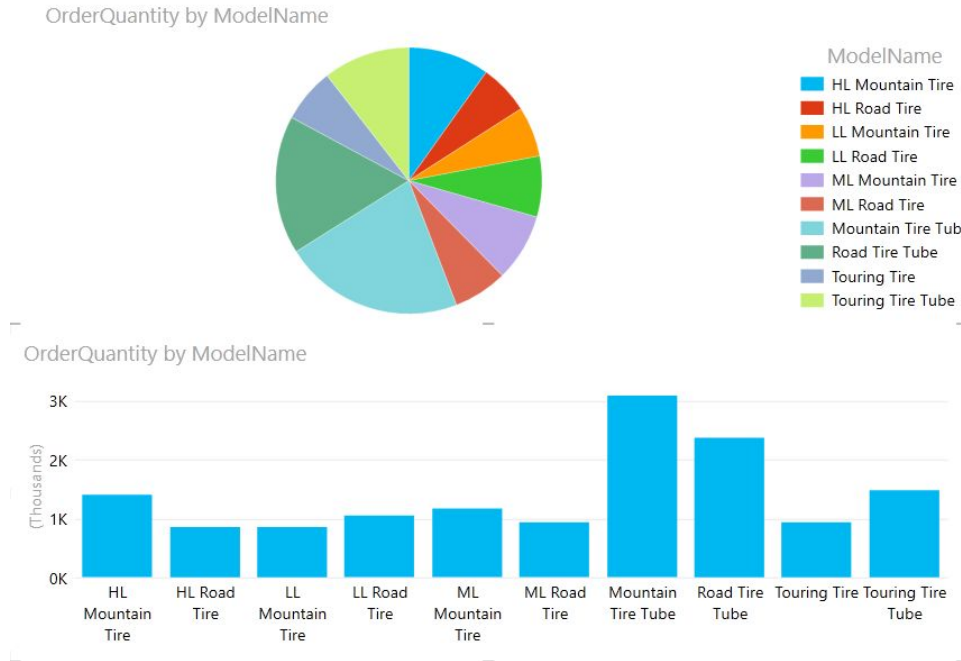
Sheet1 Power View1

READY 100%

Demo Objective:

Create a Power View Visualization

Order Quantities by Model Name



Demo



Thank You

Feedback

- GreatTechPros.com/feedback
- WylieBlanchard.com/feedback

Resources / Recommended Reading

- Power Pivot: Powerful data analysis and data modeling in Excel - <https://support.office.com/en-us/article/Power-Pivot-Powerful-data-analysis-and-data-modeling-in-Excel-D7B119ED-1B3B-4F23-B634-445AB141B59B>
- Use a BI Semantic Model Connection in Excel or Reporting Services - [https://msdn.microsoft.com/en-us/library/hh230901\(v=sql.120\).aspx](https://msdn.microsoft.com/en-us/library/hh230901(v=sql.120).aspx)
- Get data from Analysis Services - <https://support.office.com/en-us/article/Get-data-from-Analysis-Services-ba86270b-5cc2-4bb9-a21d-8bafc20f0cd3>
- Business Intelligence Semantic Model – Creating Your First Tabular Model Project – Part 1 & 2 - <http://www.fmtconsultants.com/2013/09/business-intelligence-semantic-model-creating-your-first-tabular-model-project-part-1-of-2/>
- PowerPivot for Excel Tutorial Introduction - [https://msdn.microsoft.com/en-us/library/gg413497\(v=sql.110\).aspx](https://msdn.microsoft.com/en-us/library/gg413497(v=sql.110).aspx)

Thank You

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