

# Beginning PowerPivot

Robert C. Cain

<http://www.pluralsight.com/>



# PowerPivot

- What is PowerPivot?
- What need does it fill?
- Limitations
- Demonstration

# What is PowerPivot?

*“Microsoft PowerPivot is  
Self-Service Business Intelligence”*

# Say that again...

- Business Intelligence “BI” is all about taking data you already have and transforming it into knowledge you can take informed actions on.
- Creating totals for things like sale amount

Row Labels ▼	Sum of LineTotal
Accessories	\$1,272,073
Bikes	\$94,651,173
Clothing	\$2,120,543
Components	\$11,802,593
<b>Grand Total</b>	<b>\$109,846,381</b>

# Say that again...

- Trending
- Pivot Table

Sum of LineTotal		Column Labels <input type="button" value="v"/>				
Row Labels <input type="button" value="v"/>	2005	2006	2007	2008	Grand Total	
Accessories	\$20,235	\$92,735	\$575,188	\$583,914	\$1,272,073	
Bikes	\$10,500,936	\$26,532,994	\$34,671,618	\$22,945,625	\$94,651,173	
Clothing	\$34,376	\$485,587	\$1,005,205	\$595,374	\$2,120,543	
Components	\$615,475	\$3,610,092	\$5,485,515	\$2,091,511	\$11,802,593	
Grand Total	\$11,171,023	\$30,721,409	\$41,737,525	\$26,216,425	\$109,846,381	

- Self service gives users the ability to do BI for themselves
- Every organization has someone doing BI, they just may not realize it.
- *"That guy"*

# **“That guy” has problems**

- **Two tools for doing BI**
- **Excel**
  - Pros:
    - Easily available on everyone’s desktop
    - Easy for user to create a solution on their own
  - Cons:
    - Data grows stale quickly, hard to refresh
    - Can only hold a limited volume of data
    - Sheets grow large quickly
    - Difficult to share

# **“That guy” has problems**

- **The second tool**
- **Programmed BI solution with SQL Server Analysis Services**
  - Pros:
    - Very robust and fast
    - Easy to share the data
    - Stays fresh
  - Cons:
    - Requires a lot of planning, development
    - Long time from user need to solution delivery
    - Expensive to implement

# PowerPivot – Filling the Gap

- PowerPivot is not one tool but two:

PowerPivot for Microsoft Excel 2010

PowerPivot for Microsoft SharePoint 2010



# PowerPivot for Microsoft Excel 2010

- An add-on for Excel 2010
- Brings the power of SSAS to Excel
- Data compression allows millions of rows to be stored in a compact disk space
- *Linked tables* allow data to be easily refreshed
- Data can come from wide array of sources
- Provides full functionality of Excel formulas, formatting
- Adds new tools in Data Analysis eXpressions (DAX)
- Gives “that guy” the power to create his own analysis tool

# PowerPivot for Microsoft SharePoint 2010

- A new service for SharePoint 2010
- Enables the workbook to be viewed and manipulated in the browser
- Use the PowerPivot workbook as a data source
- Use pieces of the workbook in Dashboards
- Allows for automated updates of the underlying data
- Provides monitoring tools for usage
- Gives “that guy” the ability to share his PowerPivot worksheet easily

# Limitations

- PowerPivot only works with the 2010 versions of Excel and SharePoint. No backward compatibility.
- PowerPivot for SharePoint requires SQL Server 2008 R2 Analysis Services to be installed. Not compatible with SQL Server 2005 or 2008.
- At some point usage of the PowerPivot workbook may grow too much for SharePoint to handle. At that point consider a full BI project. Monitoring tools can help with alerting before it becomes an issue.

# PowerPivot for Excel In Action

- “That guy” is the company sales manager for AdventureWorks
- Analyze the sale of various products over time
- Import data from the transactional sales database
- View it as a pivot table

To get started, you’ll need:

- Excel 2010
- Power Pivot Add-On: <http://powerpivot.com/>
- Adventure Works database: <http://msftdbprodsamples.codeplex.com/>

# Summary

- **PowerPivot fills the gap between plain Excel and a full Business Intelligence application**
- **Two tools:**
  - PowerPivot for Excel 2010
  - PowerPivot for SharePoint 2010
- **Example of PowerPivot for Excel 2010**

For more in-depth **online** developer **training** visit



**on-demand** content from authors you **trust**