Using PowerPivot in MS Excel to analyze SQL Server Data

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Speaker

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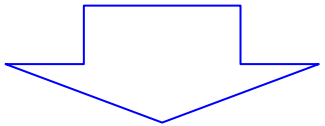
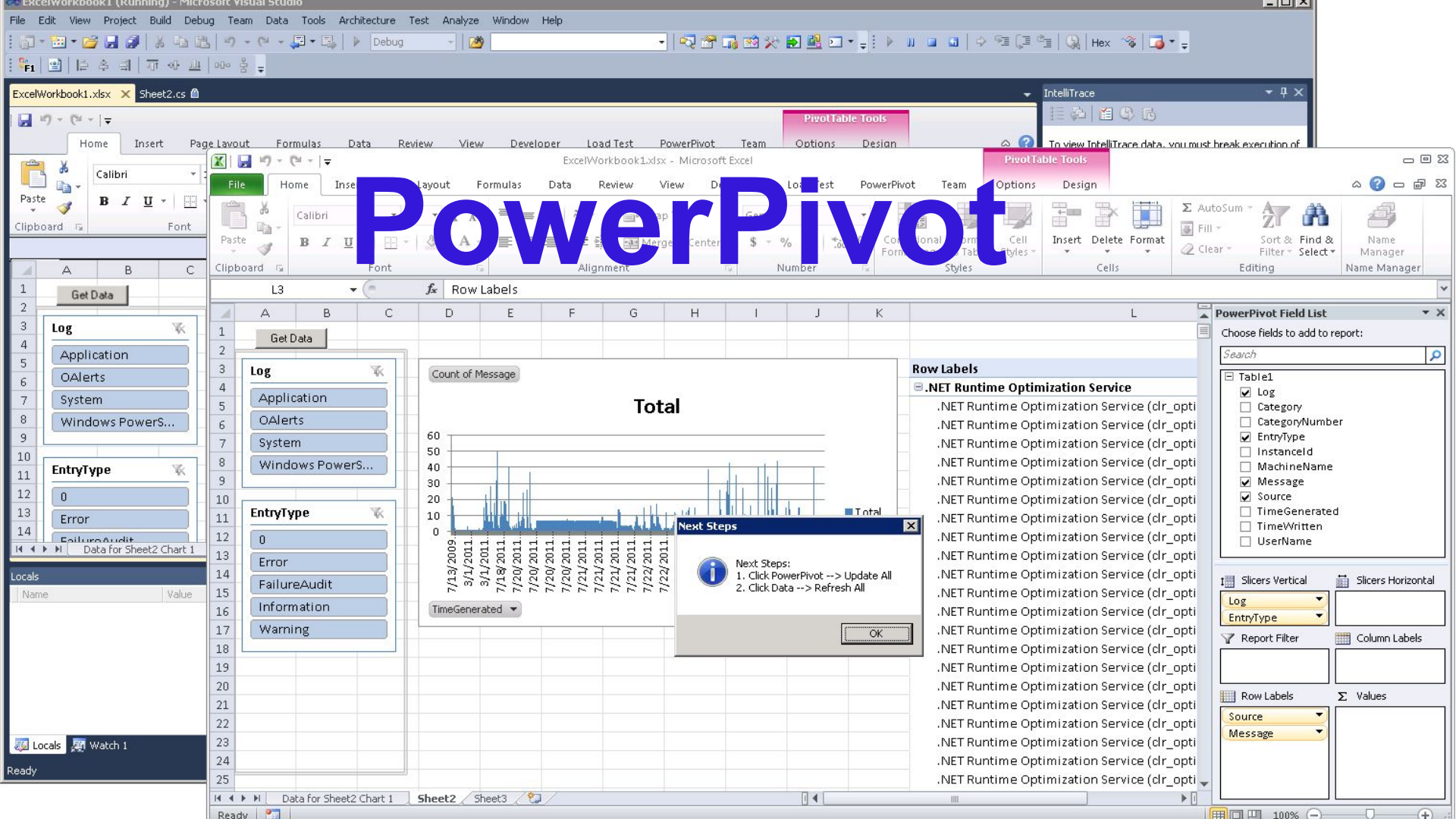


- Pizza Connoisseur (self proclaimed)

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.


PowerPivot
Get Data
Log
Application
OAlerts
System
Windows PowerS...
EntryType
0
Error
FailureAudit
Information
Warning
Count of Message
Total
TimeGenerated
Next Steps
Next Steps:
1. Click PowerPivot --> Update All
2. Click Data --> Refresh All
OK
Row Labels
.NET Runtime Optimization Service
PowerPivot Field List
Choose fields to add to report:
Search
Table1
Log
Category
CategoryNumber
EntryType
InstanceId
MachineName
Message
Source
TimeGenerated
TimeWritten
UserName
Slicers Vertical
Slicers Horizontal
Report Filter
Column Labels
Row Labels
Values
Source
Message
Data for Sheet2 Chart 1
Sheet2
Sheet3
Locals
Watch 1
Ready

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

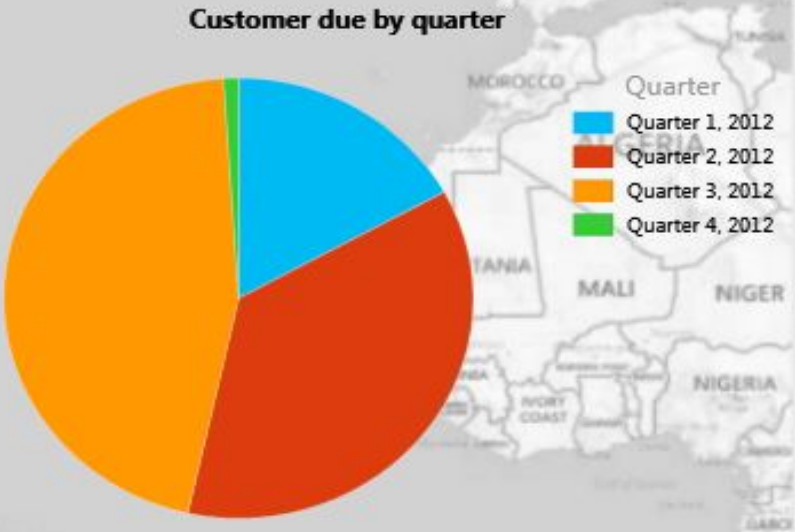
Brief History - PowerPivot

- 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



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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

- Use a BI Semantic Model Connection in Excel
- Analyze Data & Present Data with PowerPivot & Power View

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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
- 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

Thank You

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