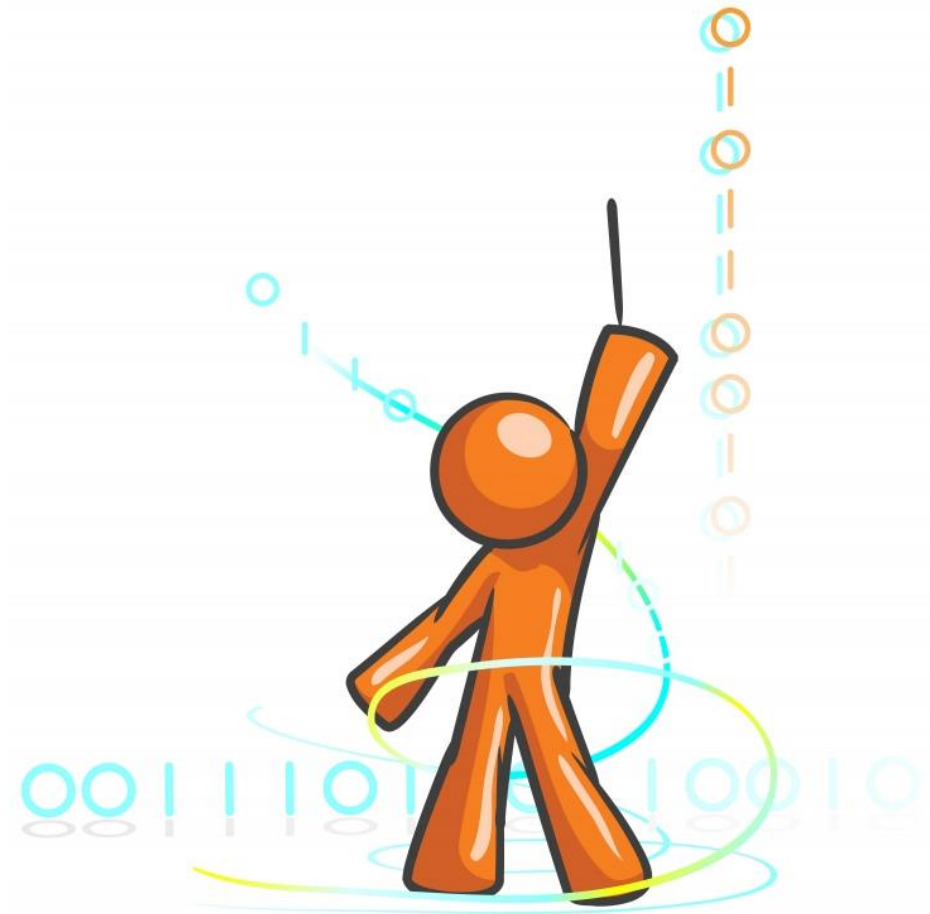


Excel Services

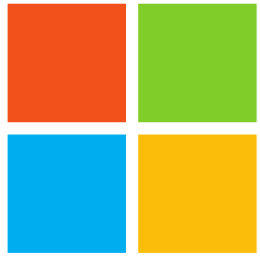
In SharePoint 2016

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Excel Services

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Microsoft

sqlcloud

redgate

coeo

Making SQL sense



PYRAMID
ANALYTICS

ap

eaacs
Effective IT for Business

Valo



Software

IDEA

SQLSENTRY

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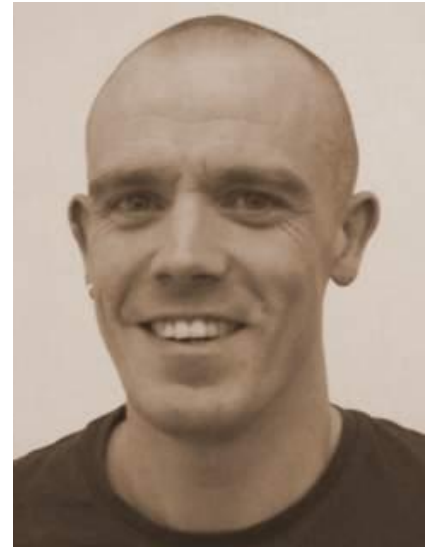


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PASS

Just Thorning Blindbæk

- ▶ Microsoft BI consultant at justB
- ▶ Trainer at Orange Man
- ▶ Founder of MsBIP.dk
- ▶ Worked with Microsoft BI in 9 years
- ▶ Strong focus on the front-end
 - Analysis Services
 - Reporting Services
 - PerformancePoint Services
 - Excel and Power Pivot
 - Power BI
- ▶ just@blindbaek.dk / blog.justB.dk



Agenda

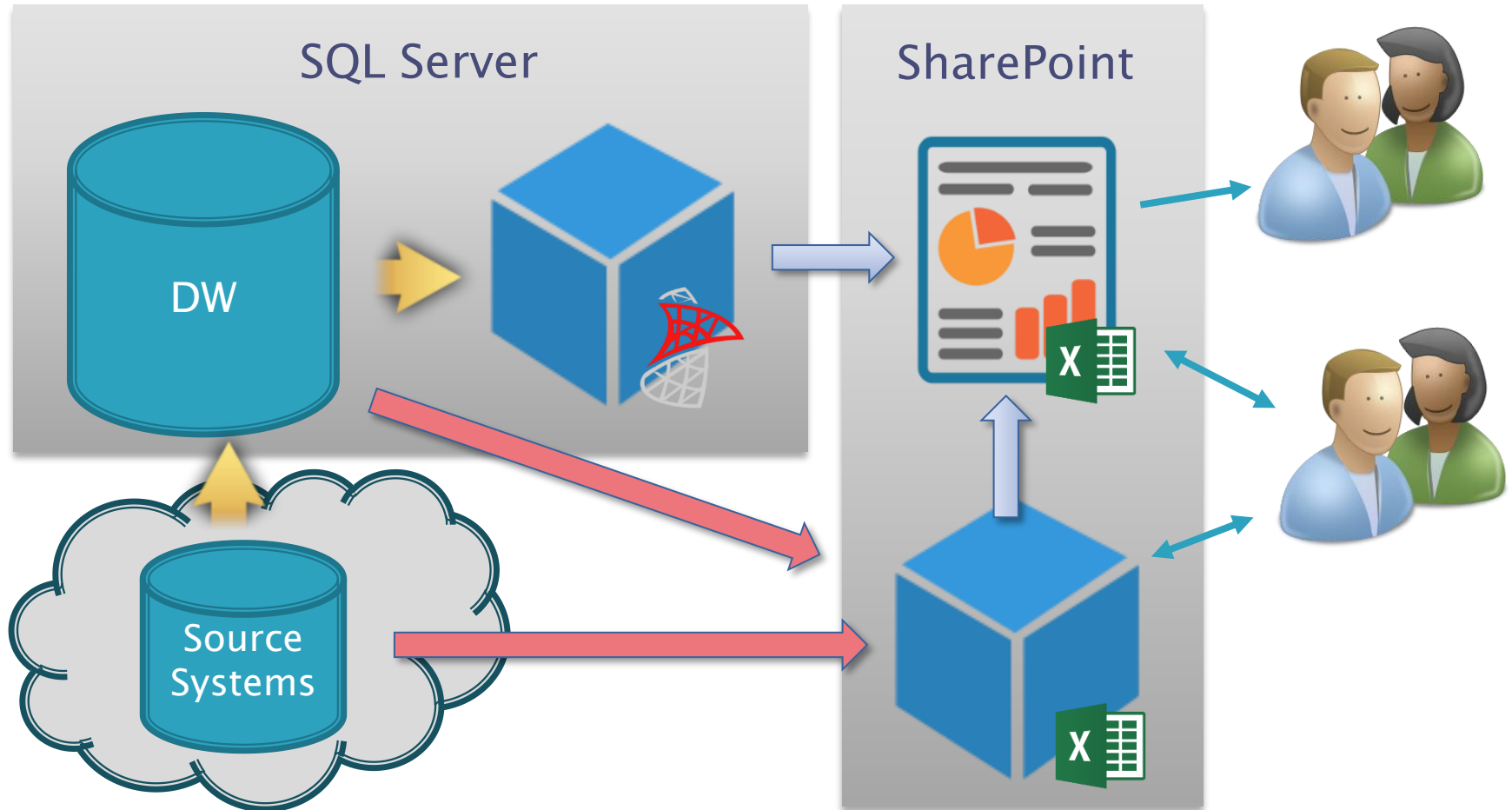
- ▶ Excel Services overview
 - Business Intelligence in Excel
 - What's new in SharePoint 2016
- ▶ Publish Options
- ▶ Integration in SharePoint
- ▶ Tips'n'Tricks
 - Remove Excel look
 - Control the layout



Excel Services overview

- ▶ Sharing workbooks through the browser
- ▶ Render Business Intelligence
 - Dashboards
 - Scorecards
 - Reports
- ▶ Interactive analytics
- ▶ Prerequisite
 - Cube as the source: Analysis Services or Power Pivot
 - Enterprise Edition
 - Office Online Server
- ▶ Also works in Office 365 (E3 or E5) and SharePoint 2013

Architecture overview



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Business Intelligence in Excel

- ▶ The main Desktop Client in Microsoft BI offerings
- ▶ Self-service reporting and analysis
- ▶ PivotTables and Charts
 - Slice'n'Dice
 - Re-Ordering and Grouping
 - Sorting and filtering
 - Show value as
 - Named Sets
- ▶ KPI's and conditional formatting
- ▶ Cube Functions – Free Format Reports
- ▶ Power View

Create dashboards and reports

Sales Dashboard

Select Year

CY 2005

CY 2006

CY 2007

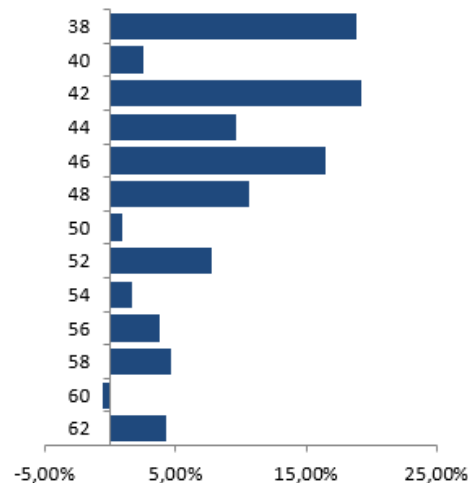
CY 2008

CY 2009

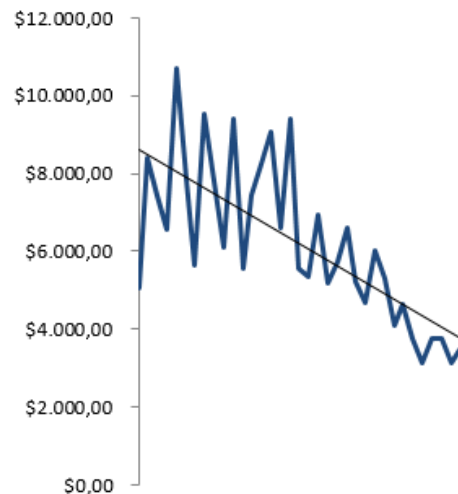
CY 2010

Sales Amount	Sparkline	Value	Target	% Target
Europe		19.800.577,06	33.691.300,00	58,77%
North America		79.353.361,18	112.048.250,00	70,82%
Pacific		10.655.335,96	3.964.450,00	268,77%

Bike Size % of Total Gross Profit



Avg Sales Amount per Month



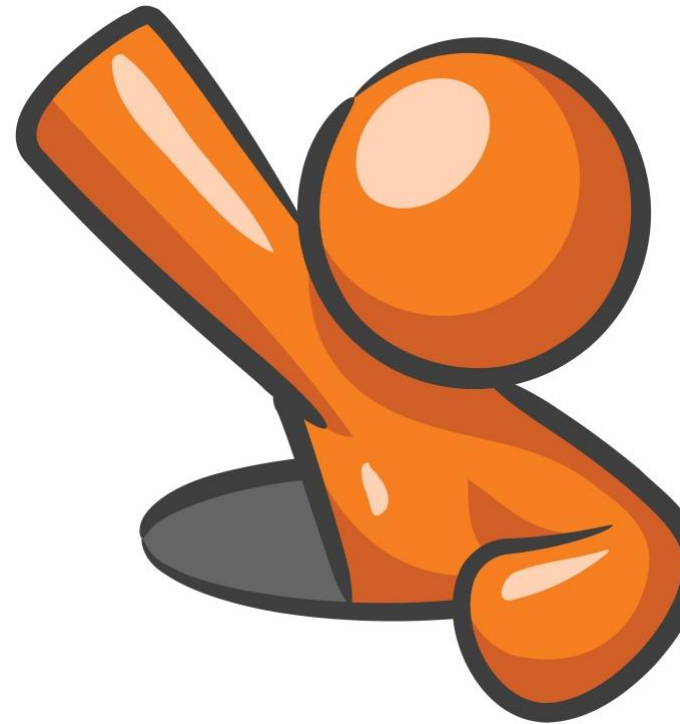
# Top 10 Products	Sales Amount
1 Mountain-200 Black, 38	2.589.364
2 Mountain-200 Black, 42	2.265.485
3 Mountain-200 Silver, 38	2.160.982
4 Mountain-200 Black, 46	1.957.528
5 Mountain-200 Silver, 42	1.914.548
6 Mountain-200 Silver, 46	1.906.249
7 Road-150 Red, 56	1.847.819
8 Mountain-200 Black, 38	1.811.229
9 Road-350-W Yellow, 48	1.774.884
10 Road-150 Red, 62	1.769.097

# Bottom 10 Products	Sales Amount
1 LL Road Seat/Saddle	163
2 LL Road Frame - Black, 60	179
3 Mountain Bike Socks, L	513
4 LL Touring Frame - Blue, 58	800
5 LL Mountain Frame - Black, 40	1.199
6 LL Road Frame - Red, 52	1.288
7 LL Touring Seat/Saddle	1.481
8 ML Mountain Frame-W - Silver, 38	1.529
9 LL Touring Handlebars	1.549
10 LL Headset	1.949

Demo: Building a dashboard in Excel

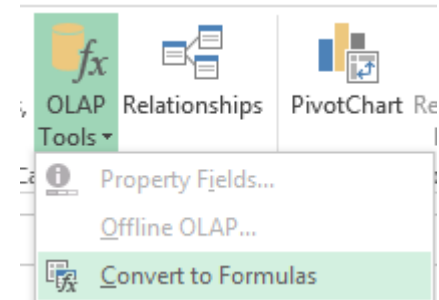
- ▶ Slicer
- ▶ PivotTables
- ▶ Sparklines
- ▶ KPIs

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Free Format Reports

- Are usefull when...
- Rearrange and delete cells
- Insert rows and columns
- Use multiple data sources
- Create a nonuniform row or column layout



Cube Functions

- ▶ CUBEMEMBER
 - Returns a member or tuple from the cube.
- ▶ CUBEVALUE
 - Returns an aggregated value from the cube for a member or tuple from the cube.
- ▶ CUBEKPIMEMBER
 - Returns a key performance indicator (KPI) property and displays the KPI name in the cell.
- ▶ CUBEMEMBERPROPERTY
 - Returns the value of a member property from the cube.
- ▶ CUBERANKEDMEMBER
 - Returns the n'th, or ranked, member in a set.
- ▶ CUBESET
 - Defines a calculated set of members or tuples.
- ▶ CUBESETCOUNT
 - Returns the number of items in a set.

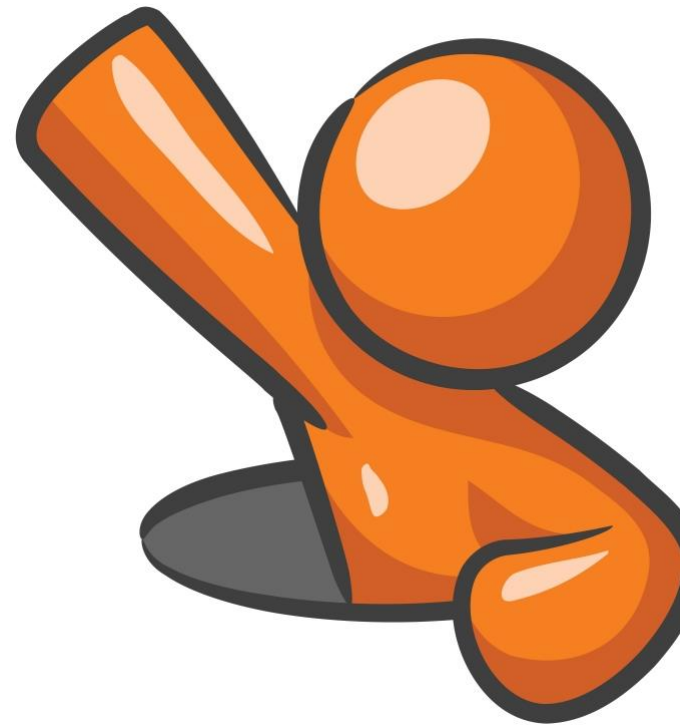
Cube Functions Examples

- ▶ `=CUBEMEMBER("ThisWorkbookDataModel";
"[Ship Date].[Calendar].[Calendar Year].&[2016]")`
- ▶ `=CUBEVALUE("ThisWorkbookDataModel";
"[Measures].[Sales Amount]")`

Demo: Building a scorecard in Excel

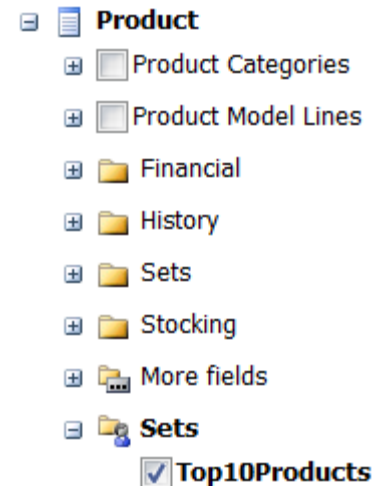
- ▶ Convert to formulas
- ▶ Cube Functions
- ▶ Nonuniform row or column layout
- ▶ Simple time intelligence

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Named Sets

- Named, reusable sets of members
- Can combine members from different hierarchies (asymmetric reporting)
- Set up time intelligence
- Defined by:
 - Explicit member selection
 - Custom MDX
- Saved in connection file



CY 2005	CY 2006	CY 2007	CY 2008		
Actual	Actual	Actual	Budget	Actual	Budget

Demo: Named Sets

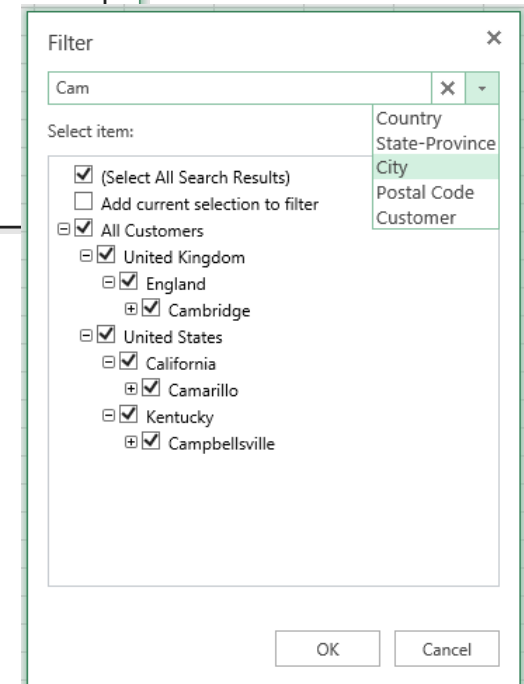
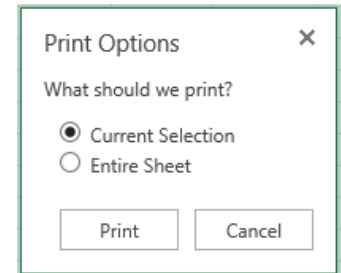
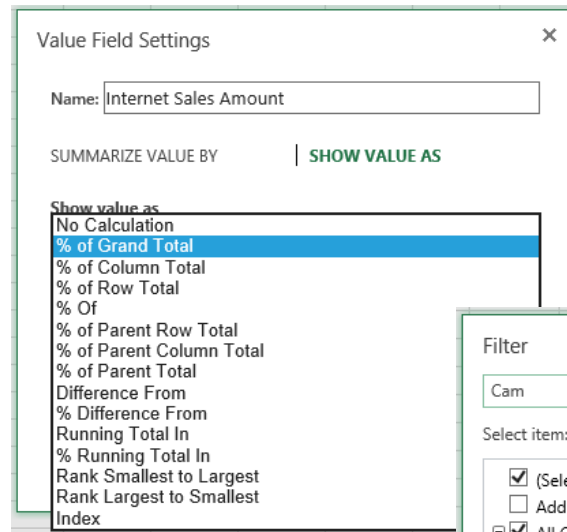
- ▶ Assymetric reporting
- ▶ Time Intelligence
 - CurrentDay
 - CurrentMonth
 - CurrentYear
 - Last12Months

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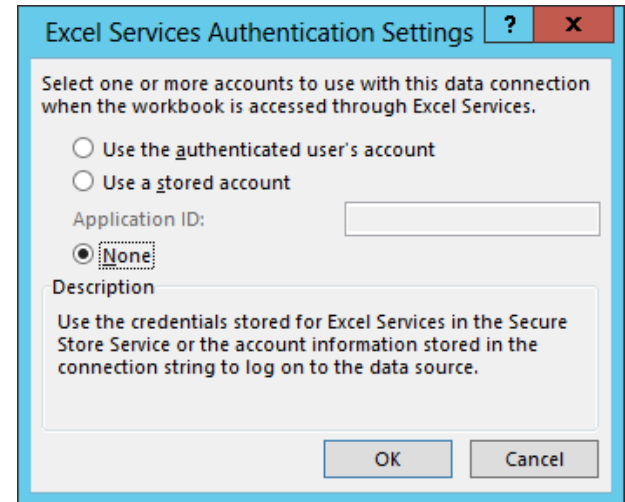
What's New in Excel Services 2016

- ▶ Features
 - Search in Filters
 - Value Field Settings
 - Number formatting
 - Print Selection
- ▶ Office Online Server
 - Robust, unified deployment
 - Scale-out
 - Evergreen – updates as O365



Connection properties

- ▶ Authentication Settings
 - Integrated Security (Kerberos/EffectiveUserName)
 - Secure Store Services (Specify)
 - None (...)
- ▶ Export Connection File
 - Data Connection library
- ▶ Refresh data when opening the file



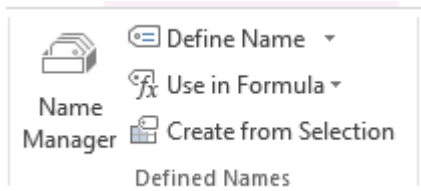
Configure Excel Services Features

- ▶ PowerShell Cmdlets on Office Online Server
 - Set-OfficeWebAppsFarm -ParameterName ParameterValue
- ▶ Warn on Refresh
 - ExcelWarnOnDataRefresh:\$false
- ▶ Turn on EffectiveUserName
 - ExcelUseEffectiveUserName:\$true

```
ExcelRequestDurationMax : 300
ExcelSessionTimeout : 450
ExcelWorkbookSizeMax : 10
ExcelPrivateBytesMax : -1
ExcelConnectionLifetime : 1800
ExcelExternalDataCacheLifetime : 300
ExcelAllowExternalData : True
ExcelUseEffectiveUserName : False
ExcelWarnOnDataRefresh : True
ExcelUdfsAllowed : False
ExcelMemoryCacheThreshold : 90
ExcelUnusedObjectAgeMax : -1
ExcelCachingUnusedFiles : True
ExcelAbortOnRefreshOnOpenFail : True
ExcelAutomaticVolatileFunctionCacheLifeTime : 300
ExcelConcurrentDataRequestsPerSessionMax : 5
ExcelDefaultWorkbookCalcMode : File
ExcelRestExternalDataEnabled : True
ExcelChartAndImageSizeMax : 1
ExcelExcelUdfEnabled : False
```

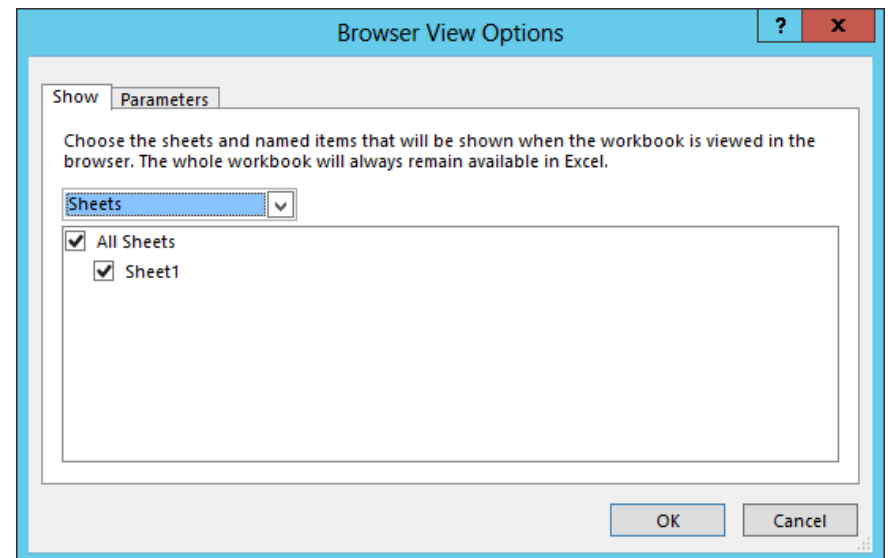
Publish Options

- ▶ Entire Workbook
- ▶ Sheets
- ▶ Items in the Workbook
 - Charts
 - PivotTable
 - Named Ranges
- ▶ Parameters



Browser View Options

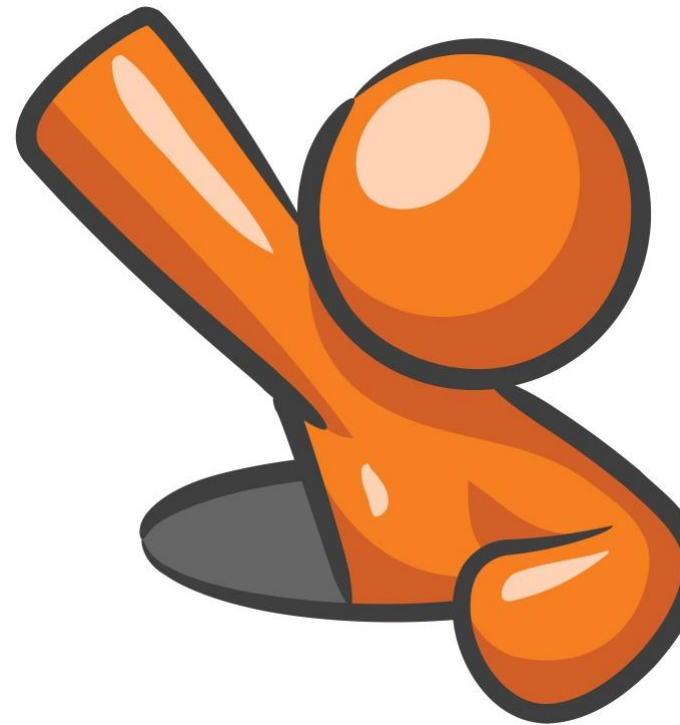
Pick what users can see when this workbook is viewed on the Web.



Demo: Publish options

- ▶ Connection properties
- ▶ Entire Workbook / Sheets
- ▶ Items in the Workbook
 - Charts
 - PivotTable
 - Named Ranges

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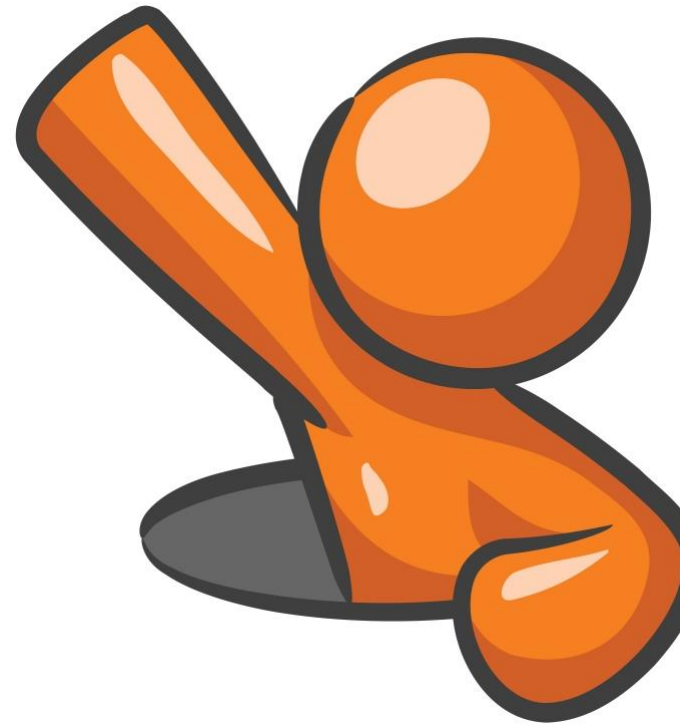
Integration in SharePoint

- ▶ Full page / Named Object Viewer
 - The lazy solution
 - Analytical templates
- ▶ PerformancePoint Services Dashboard
 - The smart, easy and quick solution
 - Use the filters from PPS
- ▶ Web Part Page
 - The customizable solution

Demo: Integration in SharePoint

- ▶ Full page
- ▶ Named Object Viewer
- ▶ PerformancePoint Services Dashboard
- ▶ Blank Web Part page

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Tips'n'Tricks recap

- ▶ Remove the Excel look
 - Remove Gridlines
- ▶ Control the layout
 - Named Ranges
 - Cube functions
- ▶ Named sets
 - Reusable logic
 - Time intelligence

Related Information

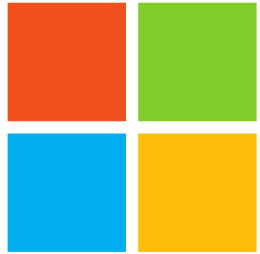
- Microsoft Excel Blog: <http://blogs.office.com/excel/>
- Channel 9: <http://channel9.msdn.com/search?term=Excel+Services>
- Cube functions: <http://blogs.office.com/b/microsoft-excel/archive/2006/02/06/cube-functions-2-a-few-examples.aspx>
- Excel 2013 – What's new: [https://sqlbits.com/Sessions/Event11/Excel_2013-Whats new beside PowerPivot and Power View](https://sqlbits.com/Sessions/Event11/Excel_2013-Whats_new_beside_PowerPivot_and_Power_View)
- Business Intelligence with Excel 2010: [https://sqlbits.com/Sessions/Event10/Business Intelligence with Excel 2010](https://sqlbits.com/Sessions/Event10/Business_Intelligence_with_Excel_2010)
- SharePoint Server 2016 dev/test environment in Azure: [https://technet.microsoft.com/library/mt723354\(v=office.16\).aspx](https://technet.microsoft.com/library/mt723354(v=office.16).aspx)
- Adding Excel Services Capabilities to a SharePoint 2016 Farm: <http://whitepages.unlimitedviz.com/2016/01/adding-excel-services-capabilities-to-a-sharepoint-2016-farm/>

Thank you for attending my session!



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