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ROCK YOUR CODE
TOUR 2017

CHICAGO

Power BI: Beyond the Basics

Andrew Brust
Founder and CEO,
Blue Badge Insights



Meet Andrew

-  BLUE BADGE INSIGHTS Founder and CEO
- Big Data blogger for ZDNet
 - <http://bit.ly/bigondata>
- Microsoft Regional Director, MVP
- Co-chair Visual Studio Live!
- Twitter: @andrewbrust

Context

- Power BI is updated monthly
- There are a ton of new features
- There isn't much time for them in a "101" session
- But they're important
- We'll look at some of the cooler ones in this session
- Some we'll just discuss
- **Lots of others will be demoed**



Agenda

Add column by example

Visualizations

Other report design

Mobile

Azure Analysis Services

Connectors

Power BI Premium



Add Column by Example

- Enter the desired result and Power BI will reverse engineer the way to get there
- May take multiple entries to eliminate ambiguity
- PBI can consider all columns or just selected ones
- Extract text before/after/between delimiters
 - Think of it like left(), right(), mid() string functions, based on characters rather than numeric positions



Add Column by Example

demo



Visualizations



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New Table Visualization



- Table style
- Word wrap
- Conditional formatting
 - **Data bars**
 - Background colors
 - Font colors

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Relative Date Slicer

- Instead of picking a date range with start and end dates, pick an interval in the future or past, or a current interval
- Express in terms of days, weeks, months, years (calendar or relative)
- Connect slicer to column of type Date and select “Relative” from viz dropdown

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**New Table Viz, Relative
Date Slicer (and maps, too)**
demo



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New Matrix Visualization

- Same formatting improvements as Table viz
- But since it's hierarchical, provides really nice subtotalling totaling capabilities
- Combine with Quick Measures for great results...



Quick Measures

- Add measures, based on complex DAX expressions, using dialog-box front end
- List of quick measures is growing; some are community-contributed
- Good way to reverse engineer DAX
- Feature is in preview



New Matrix Viz, Quick Measures demo



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Ribbon chart



- Shows trends by blending segments in a stacked bar chart of like color
- Spacing, border and transparency options to make it more readable

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Ribbon Chart

demo

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Other Report Design



Phone layout



Drillthrough pages



Explain increase/decrease



Clustering

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Phone Layout



demo

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Phone Layout: iPhone Screenshot



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Drillthrough Pages

- Allows selection in one report page to navigate to filtered view of another
- Automatically generated back-button takes you back
- As simple as dragging a specific column into the Drillthrough Filter well

Drillthrough Pages

demo

Explain Increase/Decrease

- Uses a special mode of “View Insights” to explain increases or decreases over time in a bar or column chart
- Visualizations in the explanation:
 - Allow configuration of viz type
 - Waterfall is default; can change to scatter, 100% stacked column or ribbon
 - Can be added to the report
- Really useful, low-effort root-cause analysis feature



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Explain Increase/Decrease demo



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Clustering



- Groups points on a scatter plot it affinity groups
- Just pick “Automatically find clusters” option from scatter plot viz’s “...” menu
- “Details” column cannot be hierarchy level
- Adds a special column containing cluster number to source table

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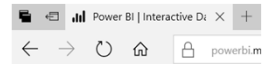
Clustering
demo



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Cloud Service

- Goal: Parity with Desktop
- Note: Only authoring option on Mac
- **Export to PowerPoint**
- **Email subscriptions**



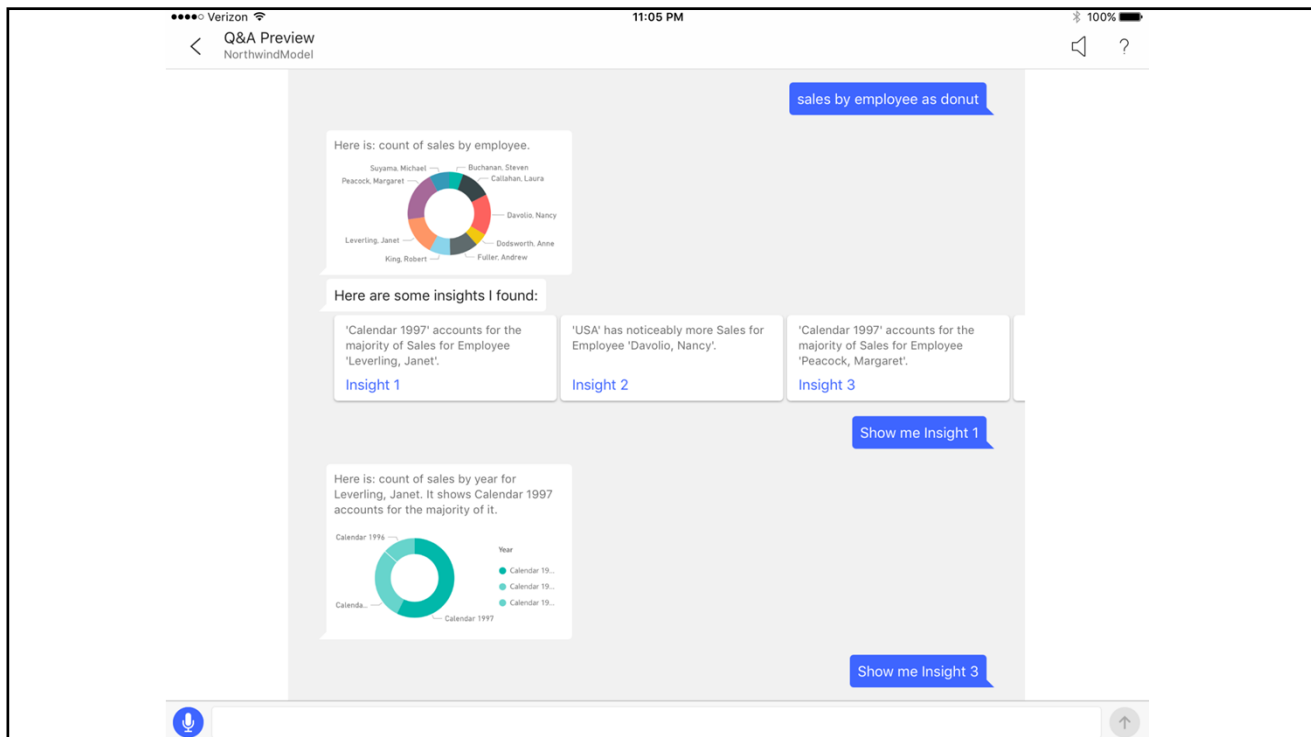
Export to PowerPoint 
demo



Mobile

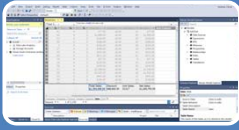
- Windows (Including PC), Android Phone, iPhone, iPad
- SSRS integration
- **Q&A in iOS**
 - With voice

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Azure Analysis Services



SSDT support



Web designer



Connectivity from Power BI

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Azure Analysis Services 

demo

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Gateway Setup

- Install it
- May need to select Change Region option to place in same region as your AAS server
- Create Azure gateway resource
- Connect AAS to the resource
- Then can deploy from SSDT, refresh data

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Gateway Setup

On-premises data gateway

You are signed in as phillipc@adventure-works.com and are ready to register the gateway.

New on-premises data gateway name
West Central US Gateway

Recovery key (8 character minimum)

ⓘ This key is needed to restore the gateway and can't be changed. Record it in a safe place.

Confirm recovery key

We'll use this region to connect the gateway to cloud services: West Central US **Change Region**

<< Back **Configure** Cancel

This!

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Connectors



- **Redshift**
- **Snowflake**
- **Netezza (Beta)**
- **Dynamics 365 for Financials (Beta)**
 - Improvements (AAD authentication and auto endpoint detection)
- **Dynamics 365 for customer insights (Beta)**
- **SAP BW with DirectQuery and enhanced parameter input experience**
- **Impala**
 - DirectQuery support
- **Azure Consumption Insights (Beta)**
- **Live connect for Power BI Service**
 - Includes on-prem and push streaming datasets
- **Live connect for Analysis Services**
 - Includes Azure Analysis Services
 - With report-level measures
- **Live connect to in Power BI Service**
- **Folder connector** Combine files
- **Web page previews** in Web connector
- **Custom connectors**

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Power BI Premium



- **Dedicated Infrastructure**
- **Multi core and, optionally, multi-server**
- **Pay per node, per month**
 - P1 node is \$4,995/month
 - 8 cores, 25GB RAM
- **Unlimited consumption users**
- **Authoring requires Pro subscription as well (\$10/user/month)**
- **Lots more. Read [white paper](#).**

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Power BI Report Server

- Power BI Premium includes an on-premises deployment option: Power BI Report Server
- PBI RS is a superset of SSRS, licensed for same number of cores as your cloud license
- Licensees of SQL Server Enterprise Edition with Software Assurance (“EE + SA”) can get PBI RS without a Power BI Premium subscription



Thank You!

- Email
 - andrew.brust@bluebadgeinsights.com
- Twitter
 - [@andrewbrust](https://twitter.com/andrewbrust) on twitter

