Microsoft Power BI 101

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About me

Gerhard Brückl

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Agenda

What is Power BI?

Power BI tools & features

• Self Service BI
• Collaboration
• Administration
What is Power BI?

- Collection of tools & features to support Self-Service BI

- Specific to user groups

- Create
- Collaborate
- Administrate

- Power User
- Consumer
- IT
Power BI – Architecture
Self-Service BI Tools

- Power Query
- Power Pivot
- Power View
- Power Map
Self-Service BI Tools

- Find/Explore
- Extract
- Transform
- Load

- Model
- Combine
- Calculate
- Store

- Explore
- Interact
- Analyze
- Visualize

PQ  Power Query
PP  Power Pivot
PV  Power View
PM  Power Map
Collaboration Features

- SharePoint Online
- Power BI sites
- Power BI Q&A
- Mobile App
- Shared Queries (Administration)
Collaboration Features

- **Power BI Site**
- **View/Share BI Content**
- **Q&A**
- **Natural language search within BI Content**
- **Mobile App**
- **View BI Content on mobile devices**
Administrative Features

• Data Management and Stewardship
  – Single point of maintenance

• Integrated Monitoring
  – Reusable in Power BI tools

• Web interface
Self-Service – Power Query

- ETL tool for Power BI
- Supports Excel 2010 / 2013 (Office 365)
- Fully integrated
Self-Service – Power Query

Extract
- Wide variety of sources
- Credential Management

Many more

Transform
- Easy to use
- Excel-like
- Powerful Script language “M”

Load
- Excel table
- Power Pivot

Share
- Store
- Reuse
Self-Service – Power Query

DEMO
Self-Service – Power Pivot

• xVelocity – in-memory column store
  – High performance / compression

• Flexible combination and modeling of any data

• DAX – Data Analysis Expression
Self-Service – Power Pivot

**External Sources**
- PQ
- Many more
- XLS
- CSV
- Copy Paste

**Data Model**
- $F(x)$
- DAX

**Internal Source**
- Many more

**Reporting**
- PV
- PM

**Share**
- Excel
Self-Service – Power Pivot

DEMO
Self-Service – Reporting

- Ad-Hoc reporting tool
  - Data exploration
  - Visualization
  - Interactive Dashboards

- Web & Client
  - Mobile support / HTML 5

- Tabular models only
  - Power Pivot
  - BISM

- Power Pivot
- Power View

- Advanced geospatial analysis
  - 2D / 3D views
  - Interactive “tours”

- Client only

- Any source
  - Excel table/range
  - Power Pivot
Self-Service – Power Pivot & Power Map

DEMO
Collaboration – Power BI sites

- App for SharePoint
- BI Portal
  - Aggregates BI content
  - View & Share BI content
- Hosts Q&A
Collaboration – Q&A

• Native language Query

• Answer displayed as report

• Searches all BI content
Collaboration

Demo
Collaboration – Mobile App

• Download via Windows Store

• No dedicated App for other platforms yet
  – Viewable via browser (HTML5)
Collaboration

Demo
Administration – Data management

- Gateways
  - Integrate On-Premises data
- Data Sources
  - Expose Metadata
- Shared Queries
- Security and role management
Administration – Data via Gateway

1. Setup gateway
2. Setup data source
3. Query meta-data
4. Query data via Gateway as OData
Collaboration – Shared Query

1. Create & Share Query
2. Search for Shared Queries
3. Execute “M”-script
Administration

Demo
THANK YOU!

• For attending this session and PASS SQLRally Nordic 2013, Stockholm