

Microsoft Power BI

Fundamentals



Power BI: Introduction to Business Analytics

Course Author: Joshua Michalik

Brief History

2010 *Power Query/Pivot*

2011 *Project Crescent*

2013 Renamed to *Power BI*

2015 *Power BI Desktop*



Why Power BI?

Many Data Sources

Powerful Data Engine

Huge Selection of
Visualizations



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Powerful features for any user!

Robust Visualization Tool

Extremely Customizable

Self-Service Data Analysis Tool

Supports On-Prem & Cloud-based data

Cloud-Based Report Sharing

Build star-schemas

Vast Support of Data Sources

Data Measures

Powerful Data Query Engines

Calculated Columns

Publish Dashboards to the Cloud

...much much more



Data Sources

Access



Access



Active Directory



Arc4matix



Adobe Analytics



SQL Server Analysis
Services



appfigures

Excel



Amazon AWS logs



Adobe Mobile
Engagement



Azure SQL Data
Warehouse



Azure SQL Database



Cloudify



comscore

DB2



Excel



Exchange



GitHub



Google Analytics



HDFS



Hirogata

GitHub

DB2



IBM DB2



MailChimp



Mapbox



Markets



Microsoft Dynamics
Marketing



Microsoft Dynamics
SQL

And many more...



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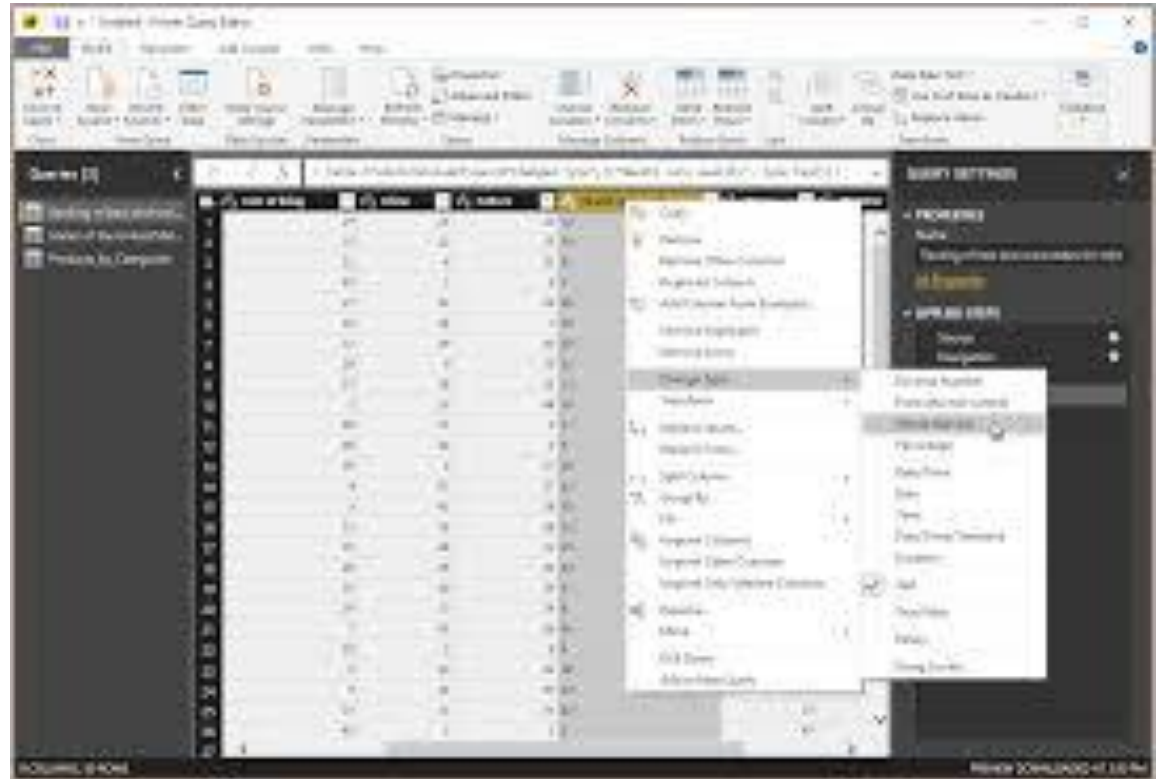
Data Engine

Relate Data

Calculated Columns

Measured Columns

Filter and Edit Data



Visualizations

Bar Graphs

Waterfall Graphs

Pie Chart

Scatter Chart

3rd Party

Customizable



Power Components

Power Query

Power Pivot

Power View

Power Map

Power Q&A



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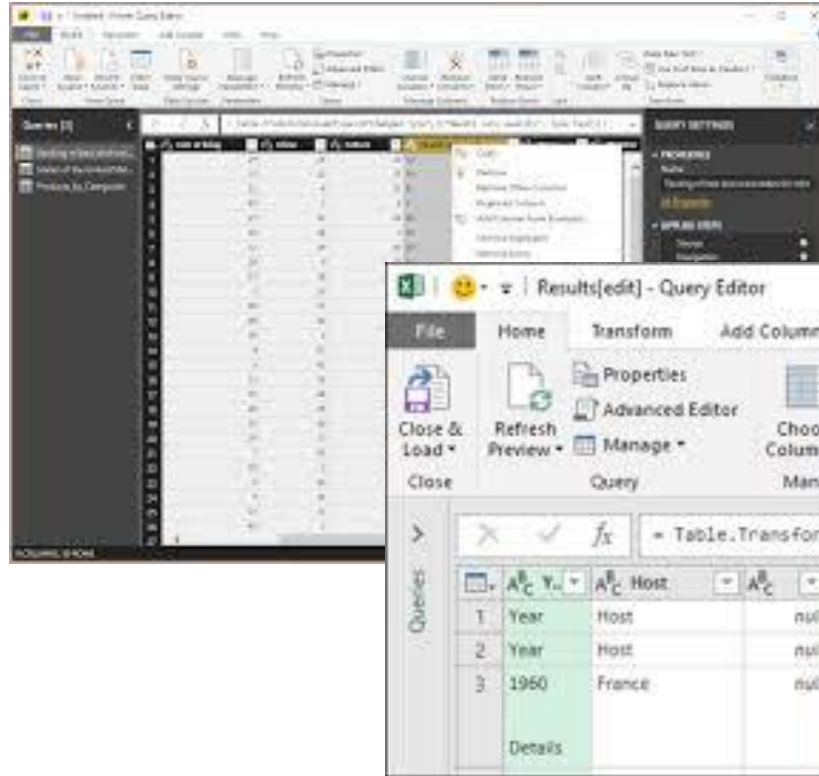
Power Query

Extract data from various sources

Transform data as needed for your usage

Extensive UI

Powered by M language



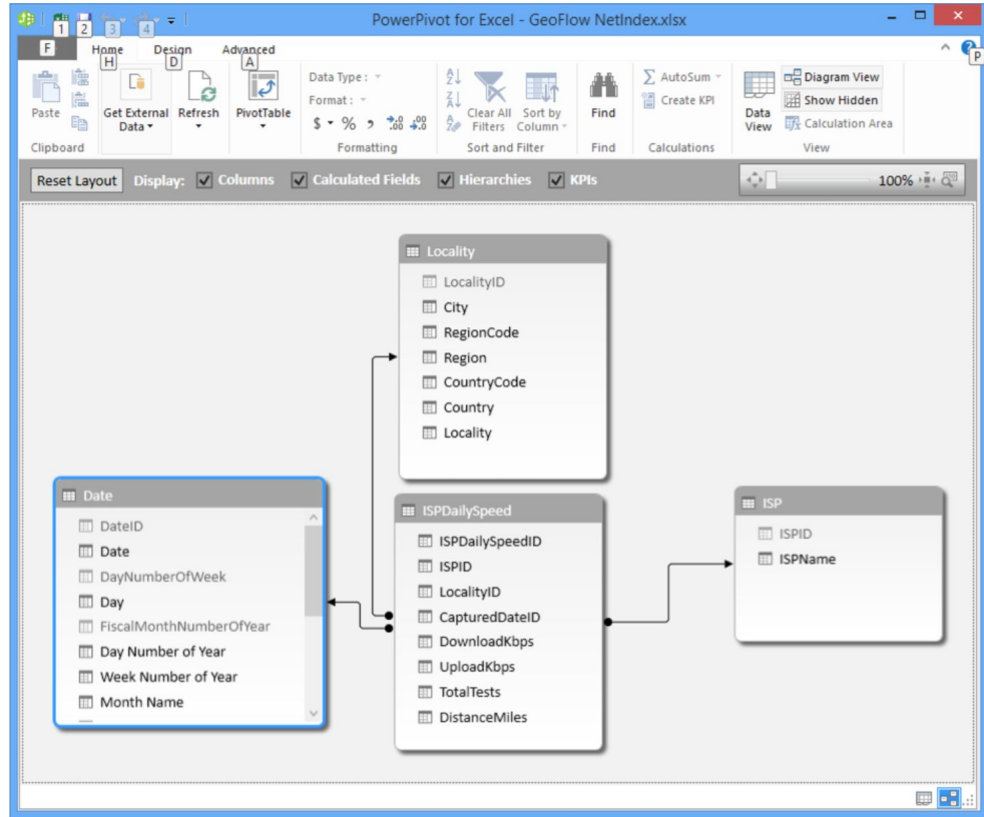
Power Pivot

Build relationships into data

Build measured columns

Create calculated columns

Powered by DAX



Power View

Connect to data
sources

Fetch metadata for
analysis

Filter data for a visual
element

Interactive!

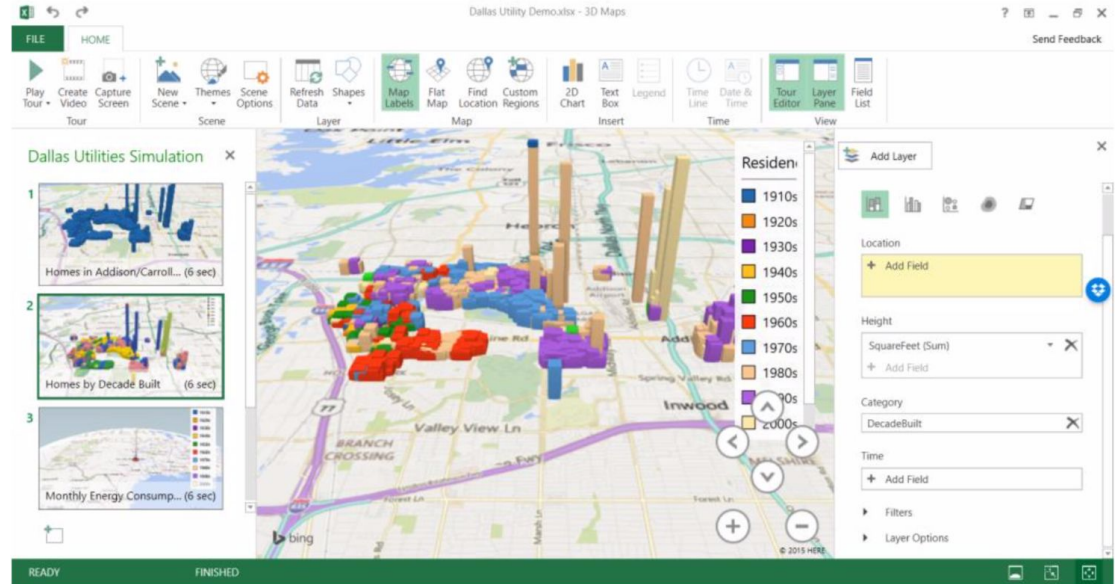


Power Map

3D Geospatial data
visualization tool

Visualize geographical
maps, heat maps based
on address or GPS
coordinates

Power by Bing Maps

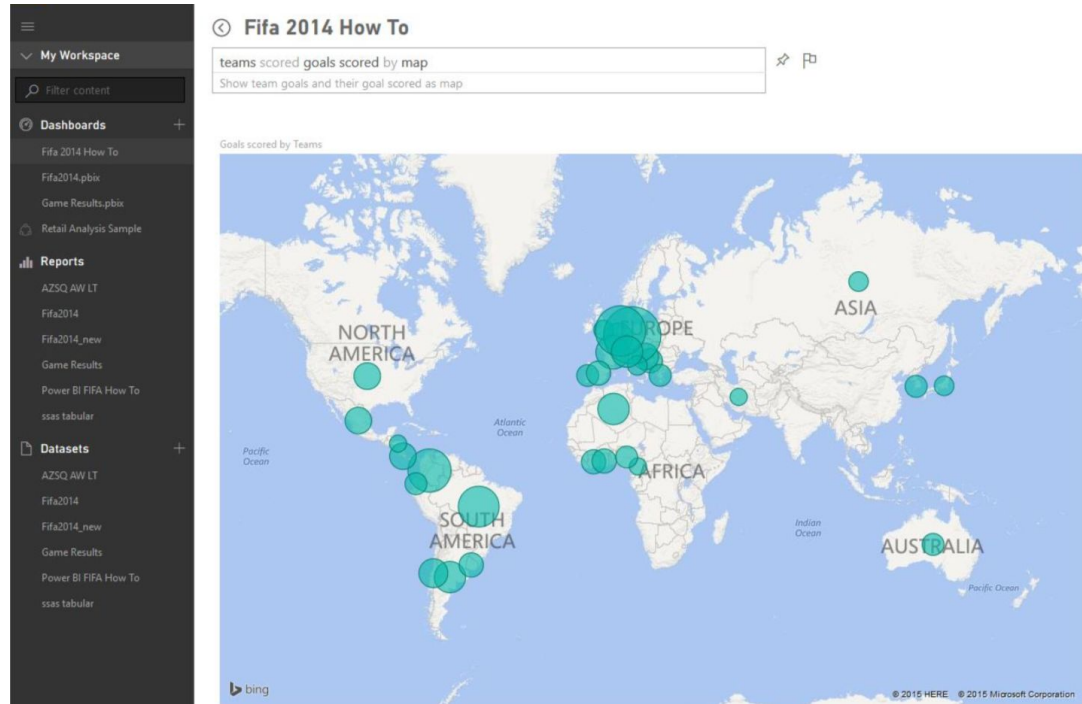


Power Q&A

Natural Language
question and
answering engine

Ask questions based on
data

Creates visuals for
questions



Power BI Applications

Power BI Desktop

Power BI Web

Power BI Mobile



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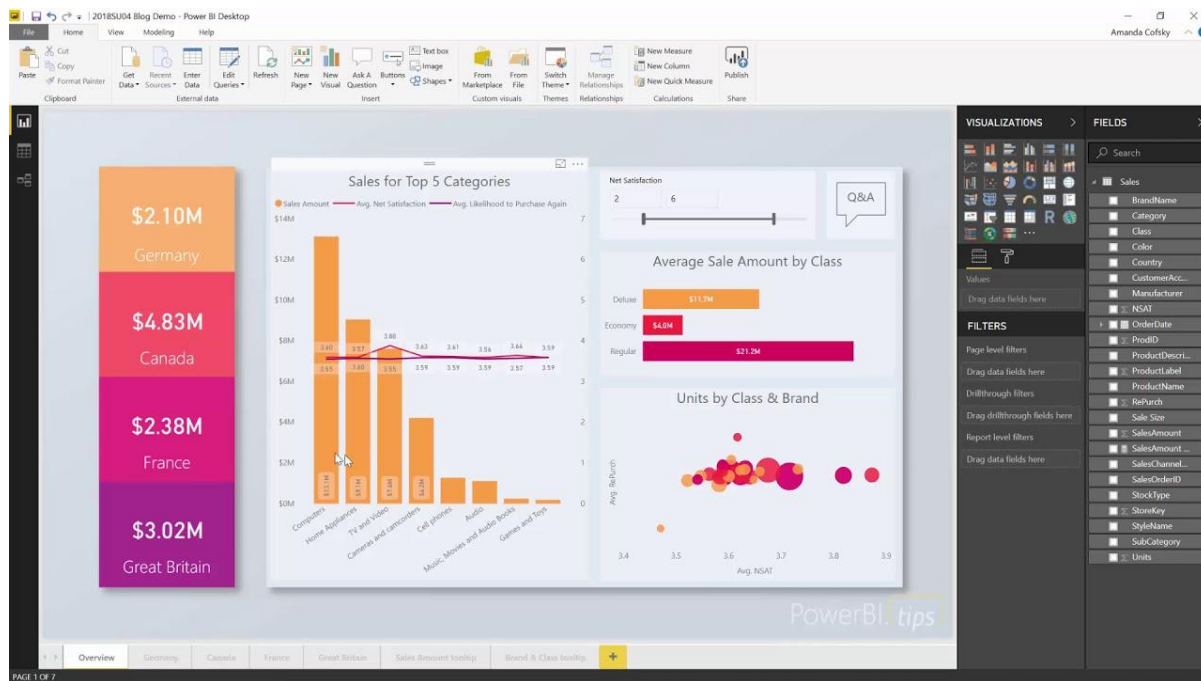
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