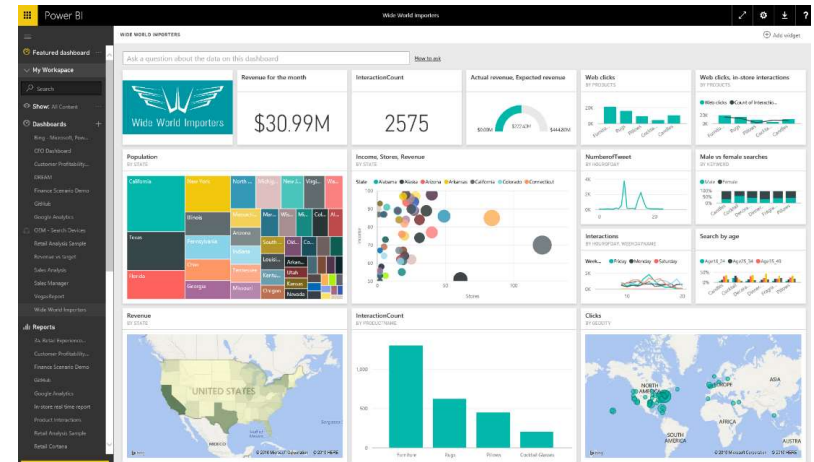


# Connecting any user, in any business, anywhere, with their data!

## Power BI

- Industry-leading SaaS service
  - 5 seconds to sign up, 5 minutes to WOW
- Large Power BI ecosystem
  - ISVs, SIs and partners creating unparalleled momentum
- Integrated across Microsoft products
  - Customers benefit from integration with other Microsoft products



# Key benefits and differentiators of Power BI



Pre-built dashboards and reports for popular SaaS solutions



Real-time dashboard updates



Secure, live connection to your data sources, on-premises and in the cloud



Intuitive data exploration using natural language query



Integrated with familiar Microsoft products and utilizes commitment for scale & availability in Azure





Fast deployment, hybrid configuration, secure, and integrated with existing IT systems.











# Power BI Overview

## Data sources

-  Cloud-based SaaS solutions  
e.g. Marketo, Salesforce, Quickbooks, Google Analytics, ...
-  On-premises data  
e.g. Analysis Services, SQL Server
-  Organizational content packs  
Corporate data sources or external data services
-  Azure services  
Azure SQL, Stream Analytics...
-  Excel and CSV files  
Workbook data, flat files
-  Power BI Desktop files  
Data from files, databases, Azure, and other sources

## Power BI Service

-  Content packs / Apps
-  Natural language query
-  Sharing & collaboration
-  Live dashboards
-  Visualizations
-  Reports
-  Datasets
-  Data refresh



## Power BI Desktop



Prepare



Explore



Report



Share



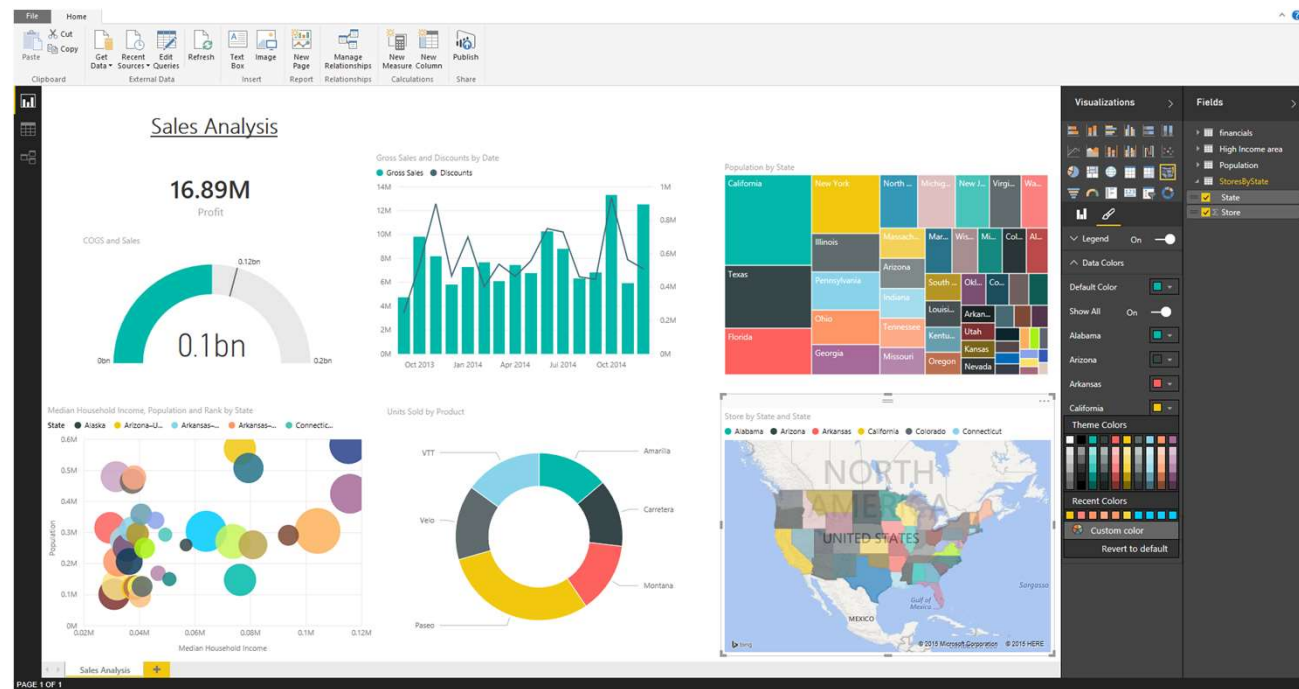
## Power BI Platform



embed, extend, integrate

# Create Power BI Content w/ PBI Desktop

- Companion to the Power BI Service
- For Business Analysts
- Rich report authoring tool with direct publish to Power BI service
- Built-in data access, mashups, and transformation capabilities
- Updated regularly



# Prepare, explore, report and collaborate

Prepare



Explore



Report



Share & collaborate



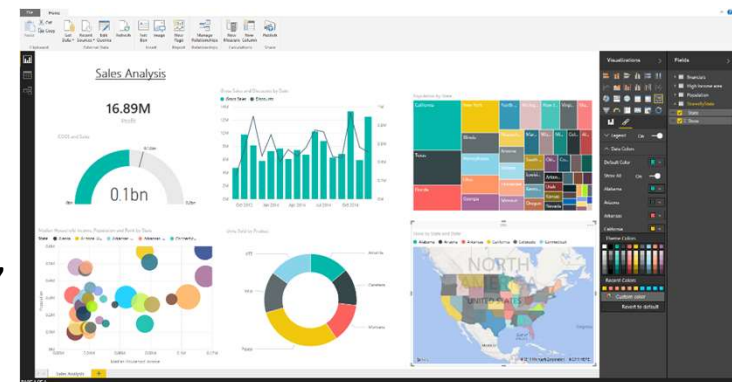
Acquire and prepare data with extensive query capabilities

Establish data structure and transform and analyze data

Explore data in new ways through a freeform, drag-and-drop canvas

Run R scripts directly in Power BI Desktop

Author reports with a broad range of modern data visualizations



Available as a free, downloadable desktop companion to the Power BI service, **Power BI Desktop is a visual data exploration and reporting tool**

# Consolidate data from a broad range of sources

- Use Query functionality to connect to data from a variety of sources beyond those available from powerbi.com
- Navigate data quickly with in-memory processing that optimizes performance
- Pare down datasets to only what's needed by editing queries before data loading
- Ability to automatically find related tables when connecting to database sources

[\*Data sources available through Power BI Desktop\*](#)

File	Database	Azure	Online Services	Other
<ul style="list-style-type: none"><li>• Excel</li><li>• CSV</li><li>• XML</li><li>• Text</li><li>• JSON</li><li>• SharePoint Folder</li></ul>	<ul style="list-style-type: none"><li>• SQL Server</li><li>• DirectQuery for SQL Server</li><li>• Access</li><li>• SQL Server Analysis Services</li><li>• SAP HANA</li><li>• SAP Business Warehouse</li><li>• Oracle</li><li>• IBM DB2</li><li>• MySQL</li><li>• PostgreSQL</li><li>• Sybase</li><li>• Teradata</li></ul>	<ul style="list-style-type: none"><li>• SQL Database</li><li>• DirectQuery for SQL Database</li><li>• SQL Data Warehouse</li><li>• Marketplace</li><li>• HDInsight</li><li>• Blob Storage</li><li>• Table Storage</li><li>• HDInsight Spark</li><li>• DocumentDB</li><li>• Data Lake Store</li></ul>	<ul style="list-style-type: none"><li>• MailChimp</li><li>• Marketo</li><li>• QuickBooks Online</li><li>• Smartsheet</li><li>• SQL Sentry</li><li>• Stripe</li><li>• SweetIQ</li><li>• Twilio</li><li>• Zendesk</li><li>• Spark</li><li>• Dynamics CRM Online</li><li>• Facebook</li><li>• Google Analytics</li><li>• Salesforce</li><li>• appFigures</li><li>• GitHub</li></ul>	<ul style="list-style-type: none"><li>• SparkPost</li><li>• tyGraph</li><li>• Webtrends</li><li>• SharePoint Online</li><li>• Exchange Online</li></ul> <ul style="list-style-type: none"><li>• Web</li><li>• SharePoint List</li><li>• OData Feed</li><li>• Hadoop File (HDFS)</li><li>• Active Directory</li><li>• Microsoft Exchange</li><li>• ODBC</li><li>• R Script</li><li>• Blank Query</li></ul>

Prepare



Explore



Report



Share & collaborate



# Data Connectivity Modes

With Power BI Desktop, you can connect to your data in three ways: Import, DirectQuery, Live/Exploration

	Import	DirectQuery	Live/Exploration
Overview	<ul style="list-style-type: none"><li>ETL</li><li>Data download</li></ul>	<ul style="list-style-type: none"><li>Select specific tables</li><li>No data download</li><li>Queries triggered from Report visuals</li></ul>	<ul style="list-style-type: none"><li>Explore source objects from Report surface</li><li>No data download</li><li>Queries triggered from Report visuals</li></ul>
Supported Data Sources	<ul style="list-style-type: none"><li>All sources</li></ul>	<ul style="list-style-type: none"><li>SQL Server</li><li>Azure SQL Database</li><li>Azure SQL Data Warehouse</li><li>SAP HANA</li><li>Oracle</li><li>Teradata &amp; others</li></ul>	<ul style="list-style-type: none"><li>SQL Server Analysis Services (Tabular &amp; Multidimensional)</li></ul>
Max # of data sources per report	<ul style="list-style-type: none"><li>Unlimited</li></ul>	<ul style="list-style-type: none"><li>One</li></ul>	<ul style="list-style-type: none"><li>One</li></ul>
Data Transformations	<ul style="list-style-type: none"><li>All transformations (100's)</li></ul>	<ul style="list-style-type: none"><li>Partial support (varies by data source)</li></ul>	<ul style="list-style-type: none"><li>None</li></ul>
Mashup Capabilities	<ul style="list-style-type: none"><li>Merge (Joins)</li><li>Append (Union)</li><li>Parameterized queries</li></ul>	<ul style="list-style-type: none"><li>Merge (Joins)</li><li>Append (Union)</li></ul>	<ul style="list-style-type: none"><li>None</li></ul>
Modeling Capabilities	<ul style="list-style-type: none"><li>Relationships</li><li>Calculated Columns &amp; Tables</li><li>Measures</li><li>Hierarchies</li></ul>	<ul style="list-style-type: none"><li>Calculated Columns</li><li>Measures</li><li>Change Column Types</li></ul>	<ul style="list-style-type: none"><li>None</li></ul>

Prepare



Explore



Report



Share & collaborate



# Shape data into the format and structure you need

Transform data to fit your needs using intuitive UI

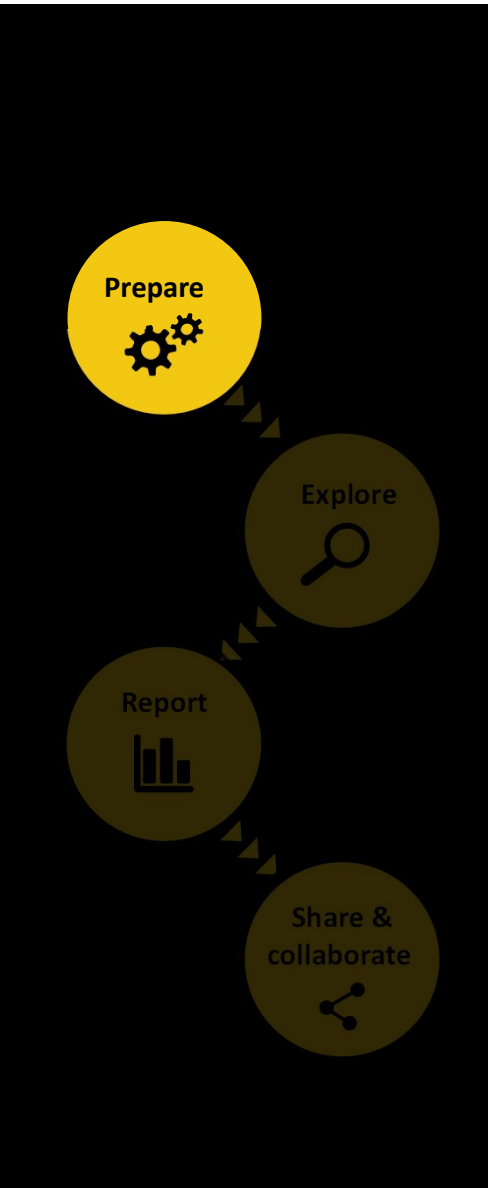
- Select data for inclusion
- Cleanse data and remove errors
- Precisely tune the query step sequence: re-order, add, edit or delete steps as needed
- Modify data types to support specific calculation requirements

Very powerful for advanced scenarios such as Mashups

## Common data-shaping tasks

- Remove rows
- Rename/Remove tables and columns
- Change a data type
- Delete Relationships
- Pivot columns and group rows
- Modify a table name
- Identify and fix errors
- Merge or append queries to combine data from multiple queries into a single query

[Shape and combine data](#)

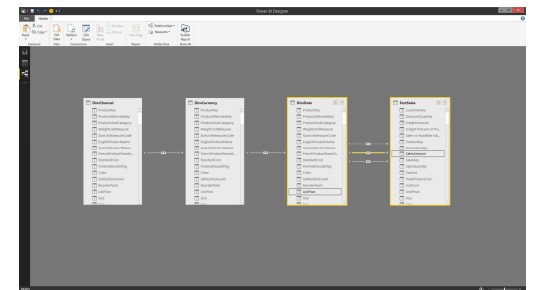




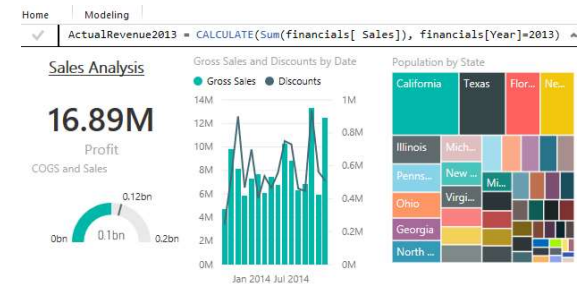
# Produce rich data models using formulas and relationships

- Automatically create a model by importing data
  - Desktop detects relationships automatically, categorizes data and applies default summarization
  - Create relationships via drag & drop between 2 tables
- Refine models to enable complex calculations
- Use automatically generated measures, create custom measures, or create Calculated Tables with Data Analysis Expressions (DAX) formulas
- Develop advanced analytics using a combination of measures and relationships

*Apply complex schema and business logic to create rich, reusable data models*



*Create and modify relationships*



*Define and use measures with DAX formulas*

[DAX Function Reference](#)

Prepare



Explore



Report

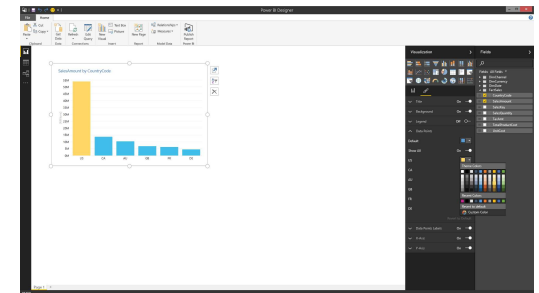


Share & collaborate



# Explore your data with freeform, drag and drop canvas

- Explore data in a variety of ways and across multiple visualizations
  - Pivot and slice data
  - Drill into and across datasets
  - Date sort and filters including Min & Max functions
  - Change visualization types
- Select, transform and mashup data via a freeform, drag-and-drop canvas
- Filter data and use cross-filter capabilities
- Run R scripts, and import the resulting datasets into a Power BI Desktop data model



*Power BI Desktop allows you to explore your data and create insightful visualizations on a freeform canvas*



# Deliver valuable insights with customizable visual reports

Depict data in compelling reports that tell stories using a range of interactive visualizations

- Use data from many sources in a single, consolidated report
- Create compelling visuals by integrating with R
- Ability to incorporate custom visualizations
- Build reports with KPI trends
- Change color, format and customize visualizations
- Linear or Logarithmic scales in Y-axis



*Power BI Desktop allows you to create and customize reports that tell visually compelling data stories*

Prepare



Explore



Report

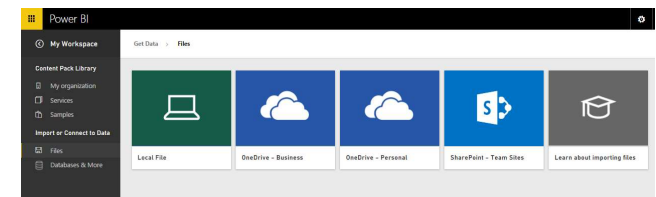


Share & collaborate

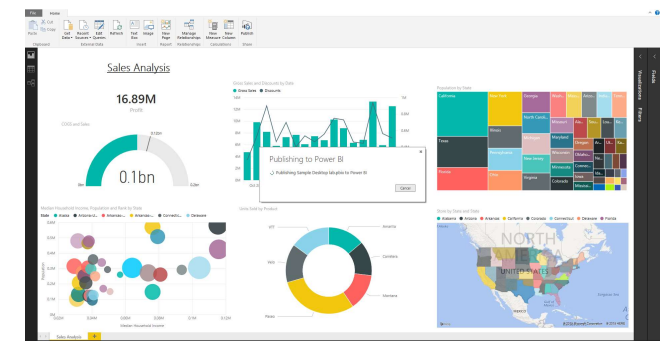


# Share reports, visualizations and data with a broad audience

- Save Power BI Desktop report files and easily publish them to Power BI
- Share as appropriate with other Power BI users in your organization
- Copy table, cells or columns to clipboard



*Import Power BI Desktop file in Power BI service*



*Publish from Power BI Desktop to Power BI service*

