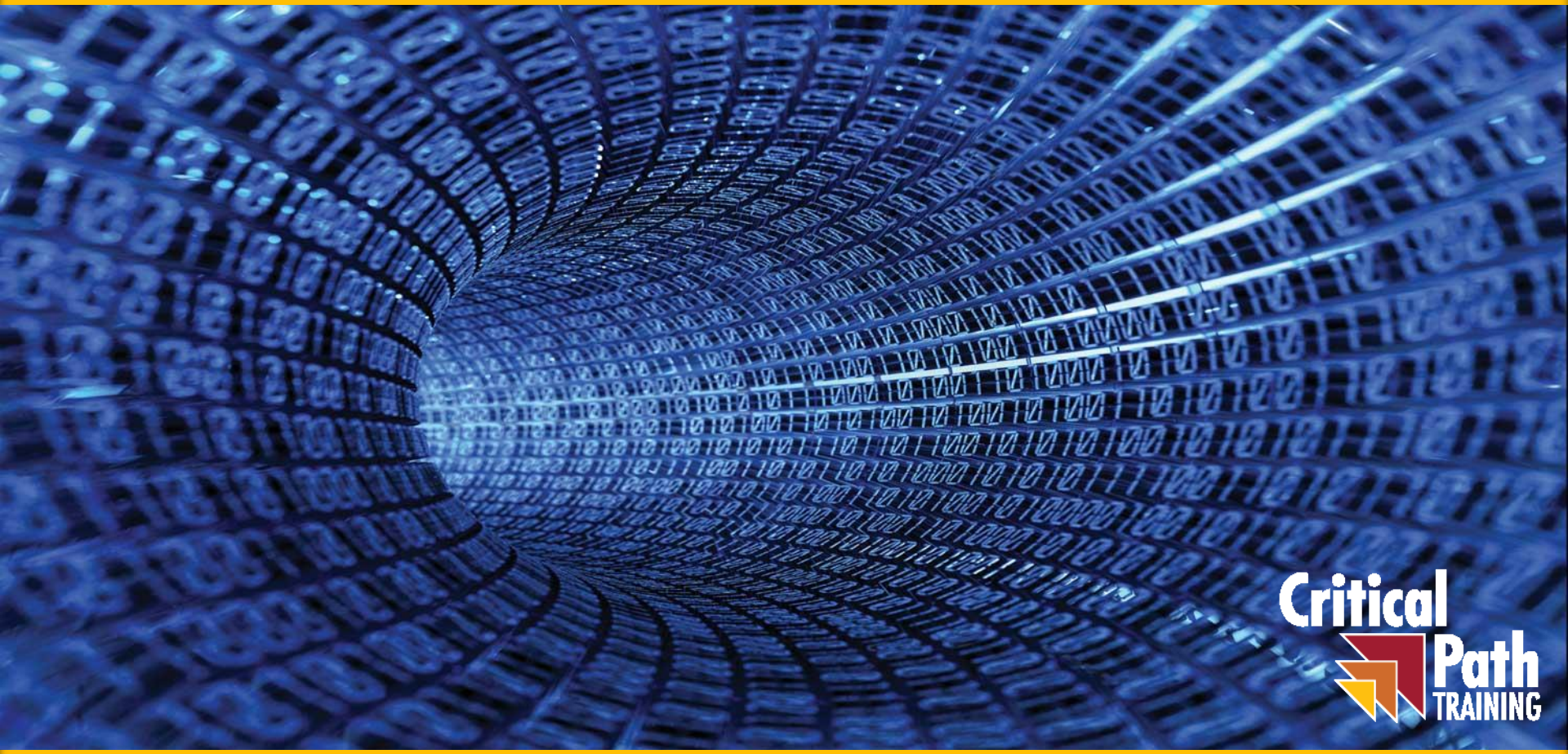
Integrating PowerApps with Power BI



Agenda

- Overview of Power BI Integration Features
- Embedding Power BI Dashboard Tiles in PowerApps
- Extending Power BI Reports using Canvas Apps
- Designing Flows to Update Real-time Dashboards
- Triggering Flows using Power BI Dashboard Alerts

What is Power BI?

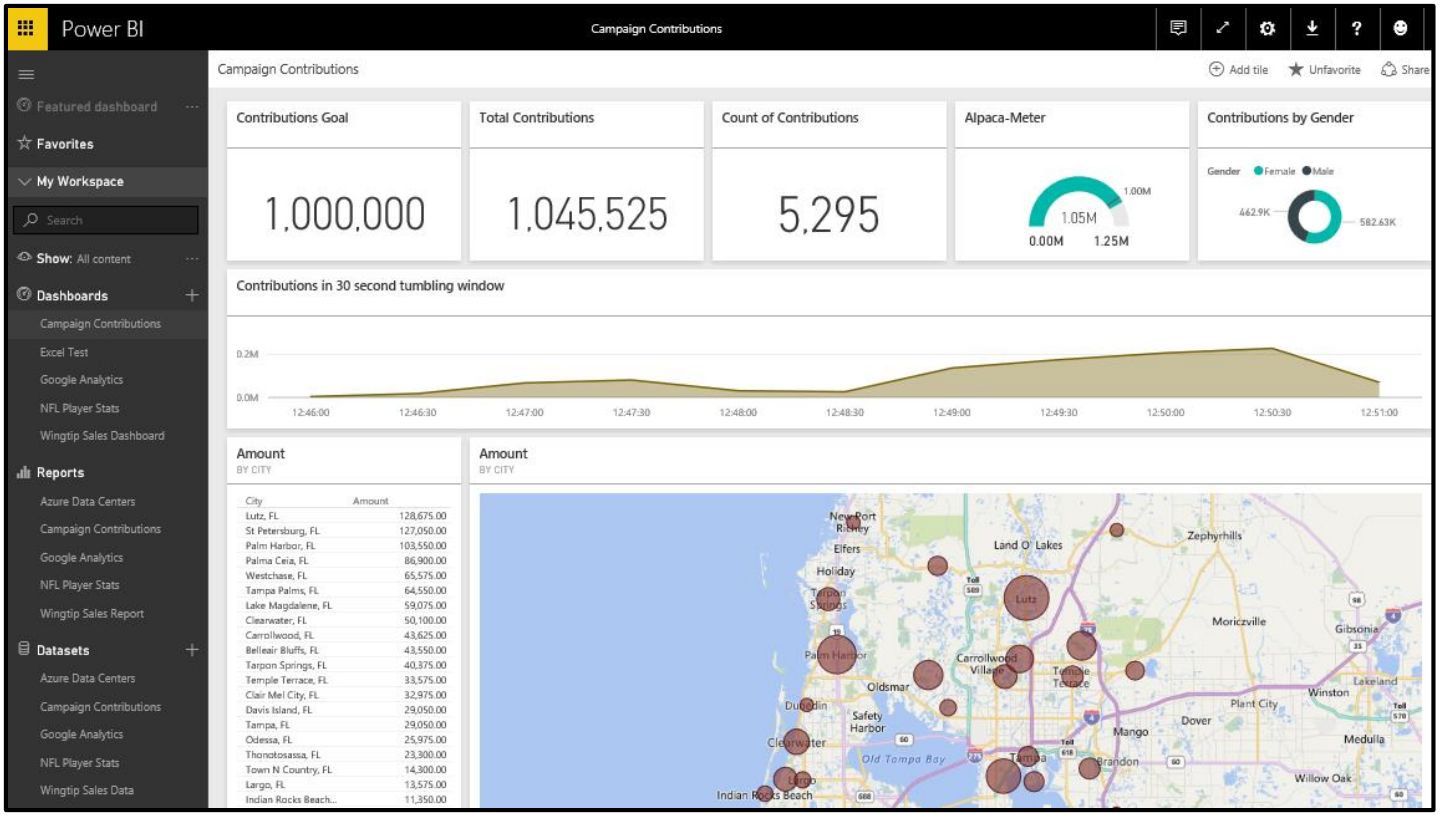
- What is Power BI?
  - Cloud-based subscription service
  - Environment which promotes self-service BI *to the end user*
  - BI Platform to assists with data import, analysis and visualization

- Power BI benefits from being a cloud-based service
  - It takes only 5 seconds to subscribe to the Power BI service
  - New users can create something significant in 5 minutes or less

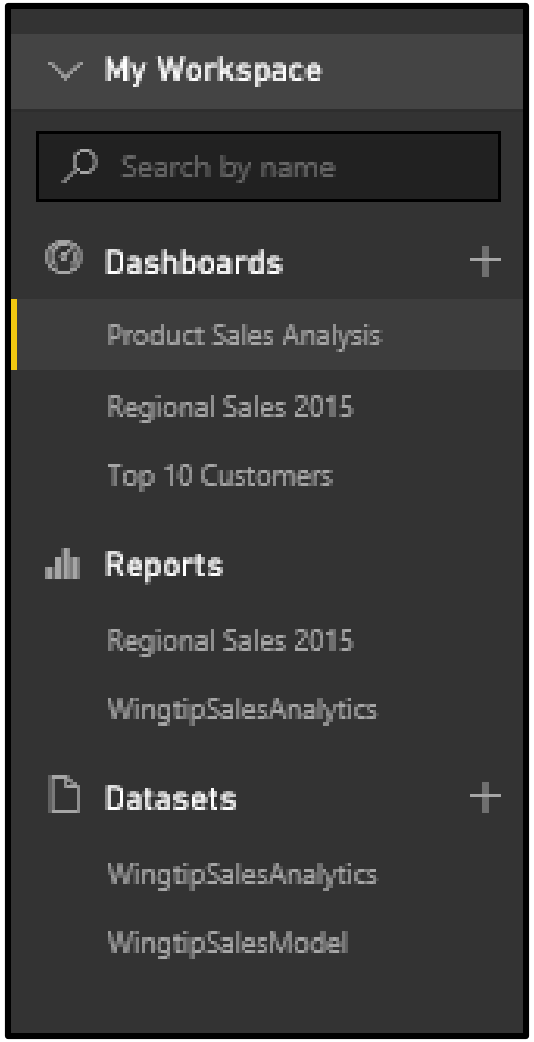
- Power BI adoption numbers *(as of Q1 2016)*
  - 5 million subscribers
  - 200,000 organizations
  - 40 different languages

The Power BI Service

- The Power BI Service
  - Provides cloud-based foundation for Power BI platform
  - Accessible through browser at https://app.powerbi.com



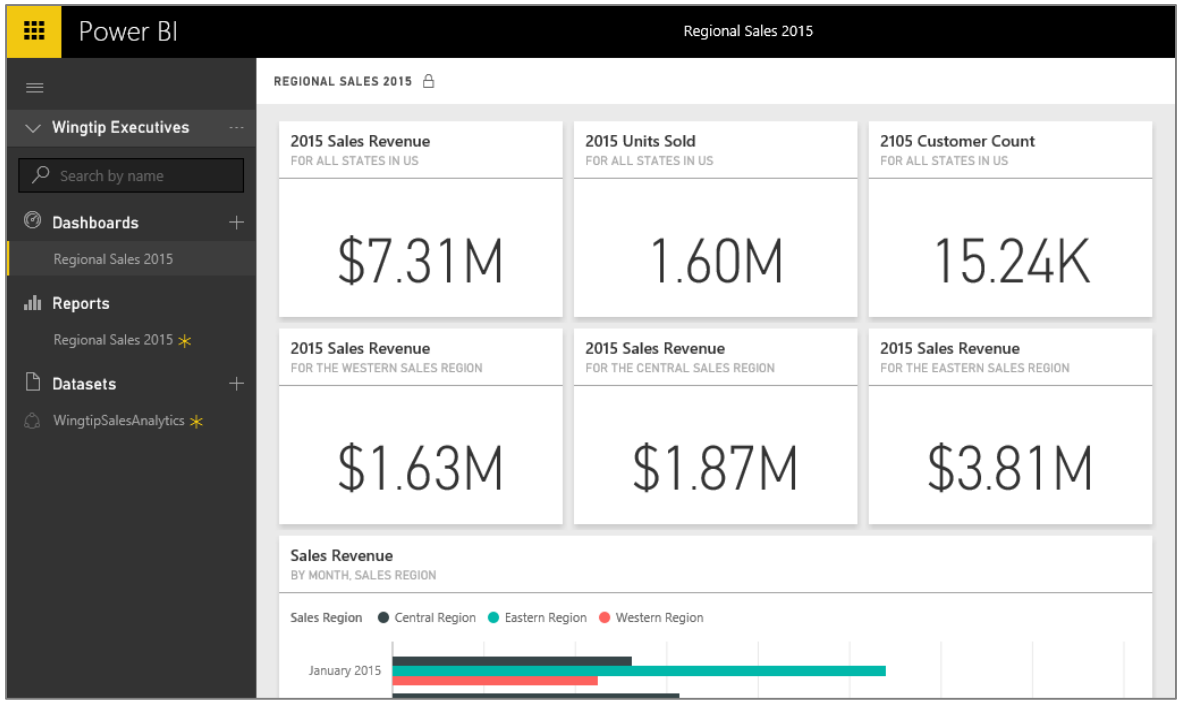
Central Power BI Concepts



- Workspace
  - Provides user context and asset container
  - Every user has personal workspace
  - Team development requires group workspaces
- Dashboard
  - Consolidated view into reports and datasets
  - Custom solution entry point for mobile users
- Report
  - Collection of pages with tables & visualizations
  - Provides interactive control of filtering
- Dataset
  - Data model containing one or more tables
  - Can be very simple or very complex

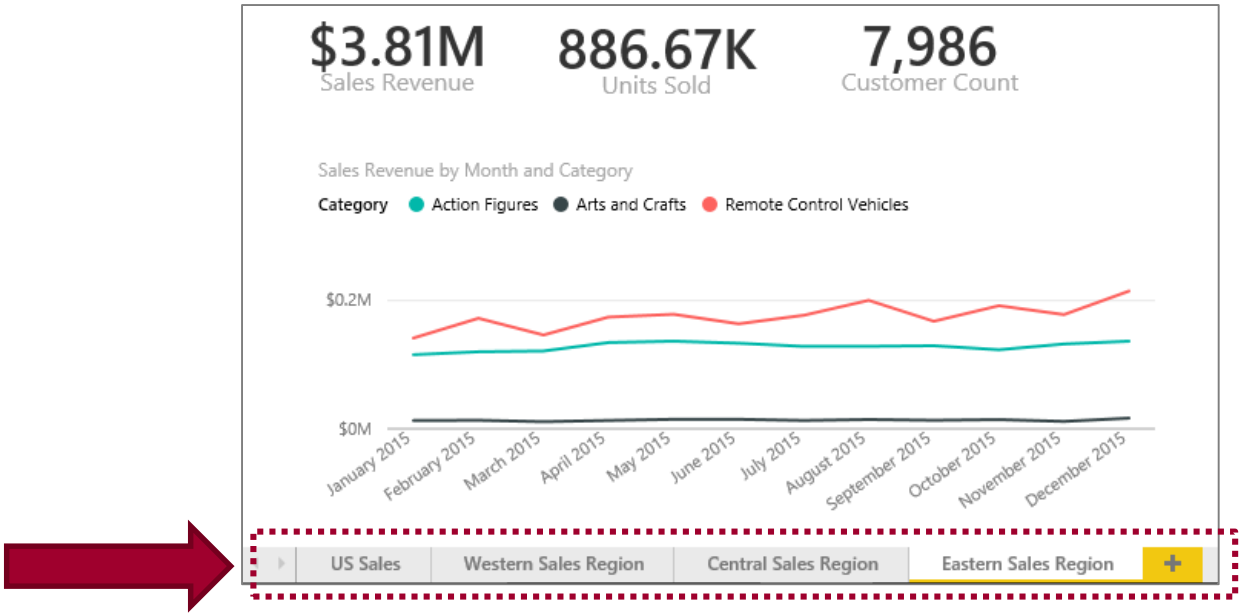
Dashboards and Tiles

- Dashboard is a collection of tiles
  - Tile can be created by pinning visual from a report
  - Tile can be created by pinning query result from dataset



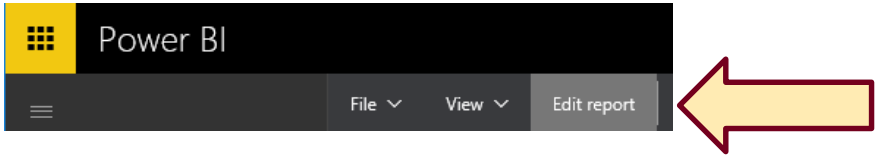
Reports and Pages

- Reports contain one or more pages
  - A report can be designed with a single page
  - A report can be designed with many pages
  - Tabbed navigation located at bottom of report view
  - Each report is associated with exactly one dataset

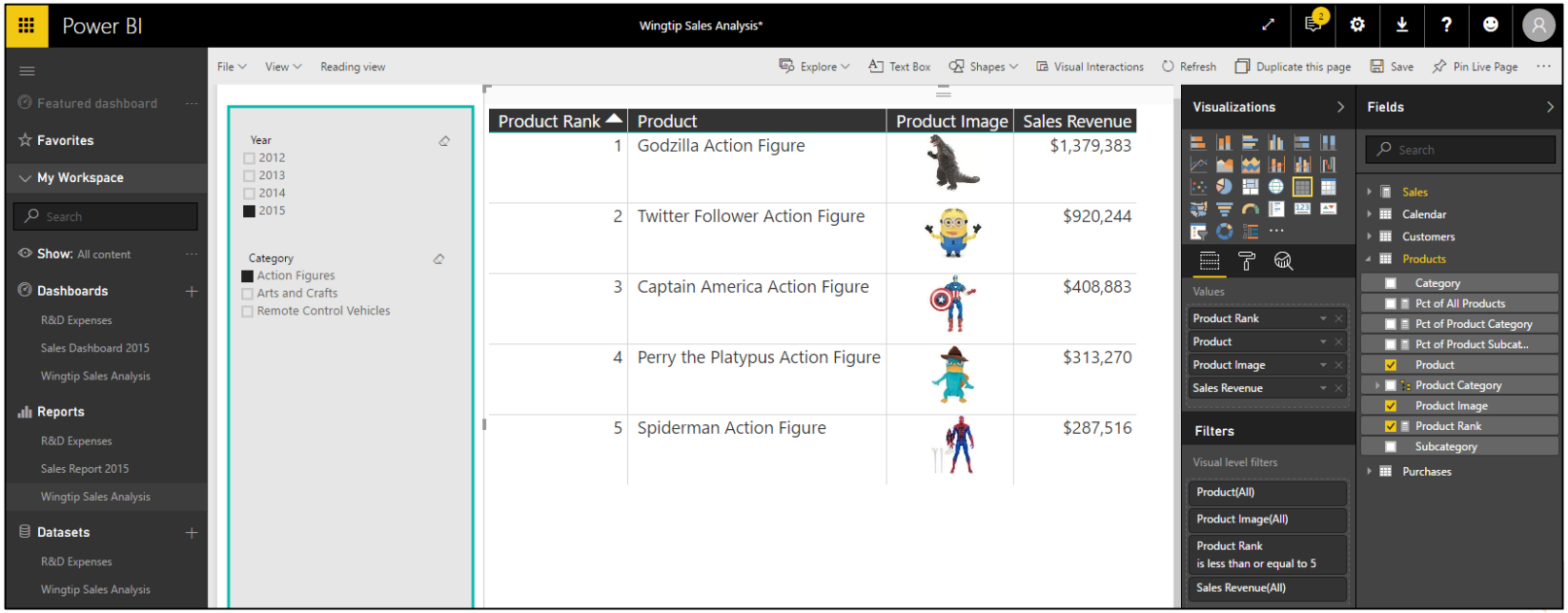


Report Authoring

- Report initially opens in reading view
  - Click Edit report to switch to edit mode

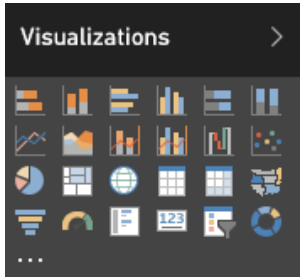


  - Report design tools appear on right side of page

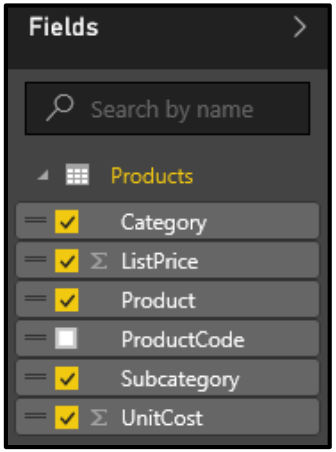


Visuals (aka Visualizations)

- Reports are designed using visual (aka visualizations)
  - Each visuals is based on an underlying visualization type
  - Visualization type can be changed using **Visualizations** pane

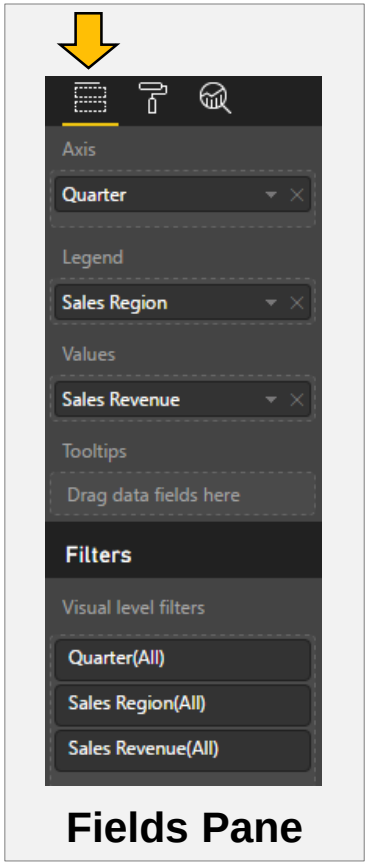


  - Visuals creating by using fields from tables inside **Fields** list

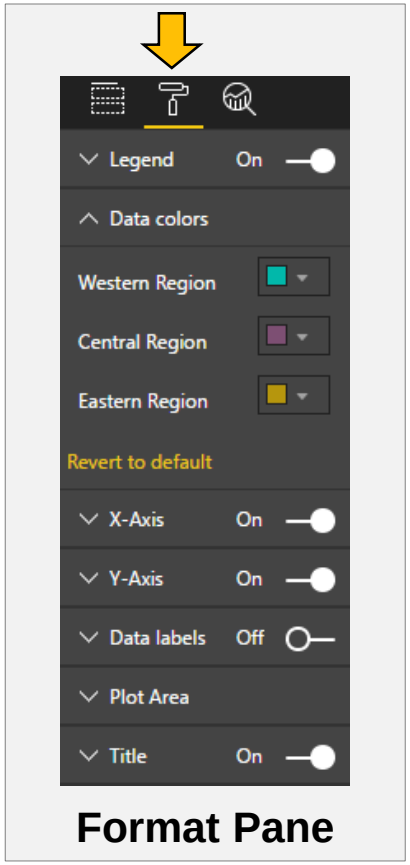


Editing Visual Properties

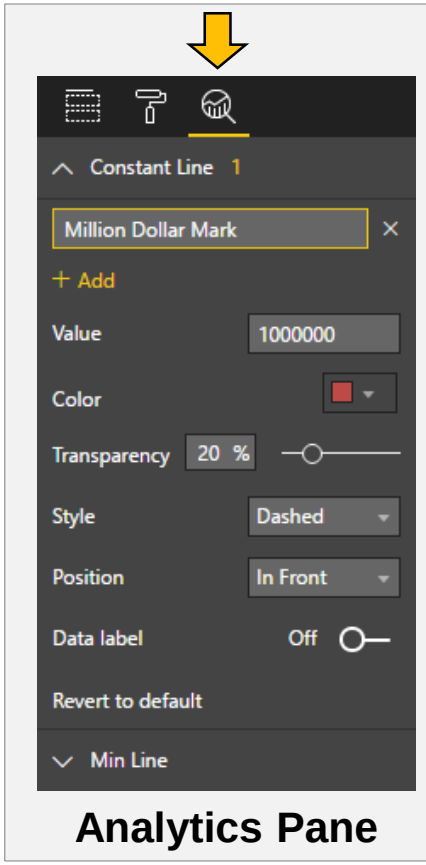
- Visual properties modified using three property panes
  - Visual properties vary greatly depending on type of visualization



Fields Pane



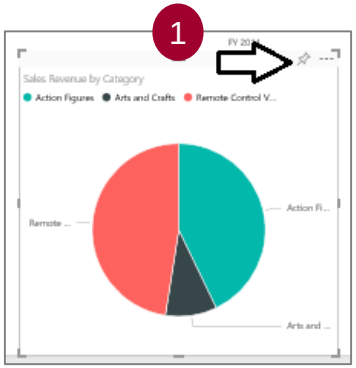
Format Pane

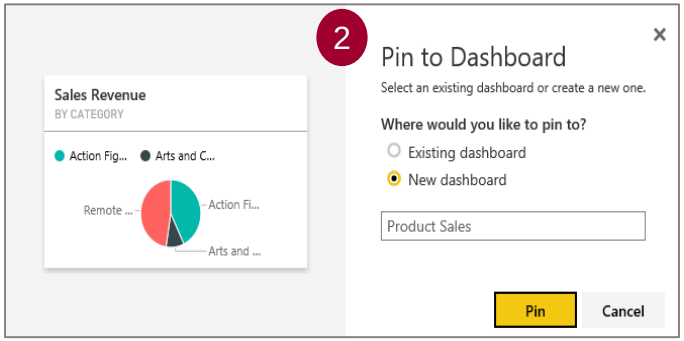


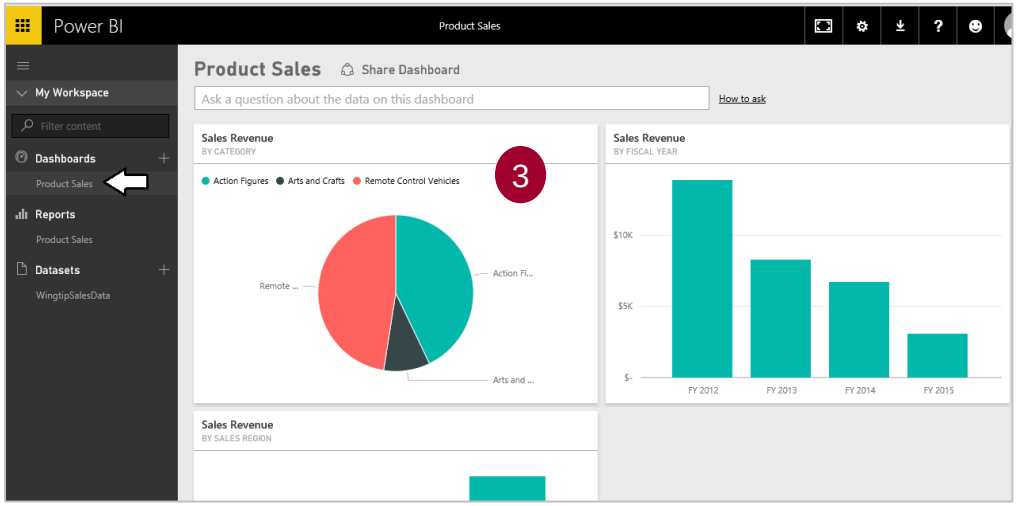
Analytics Pane

Creating Dashboards

- Dashboards contain tiles
  - Tiles created from visuals on report pages

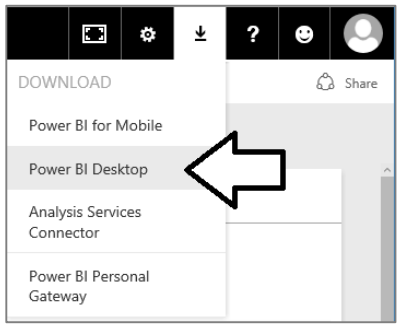


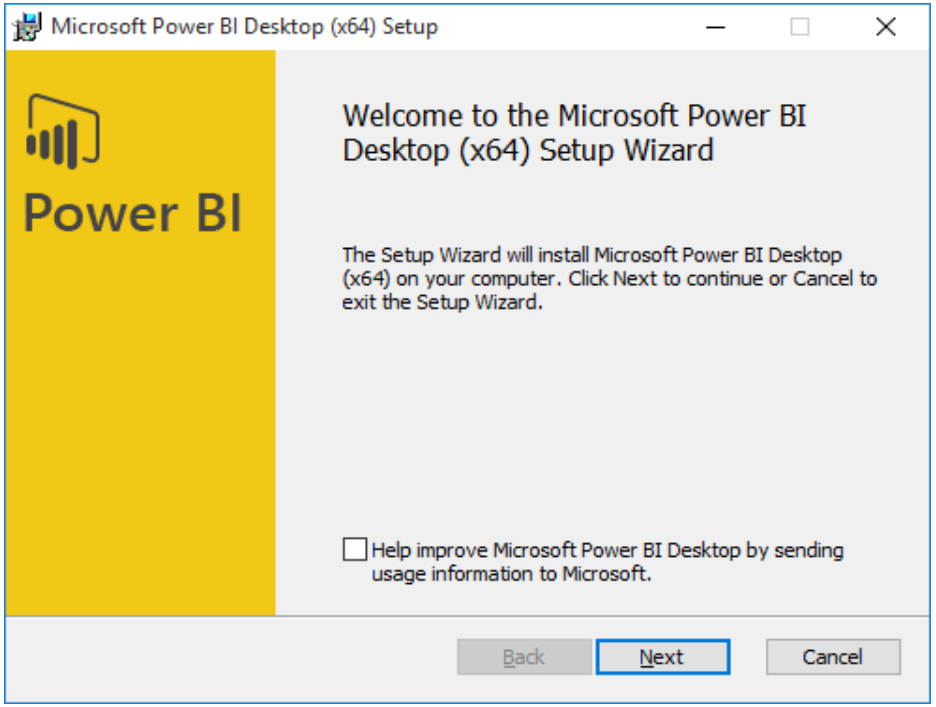




Installing Power BI Desktop

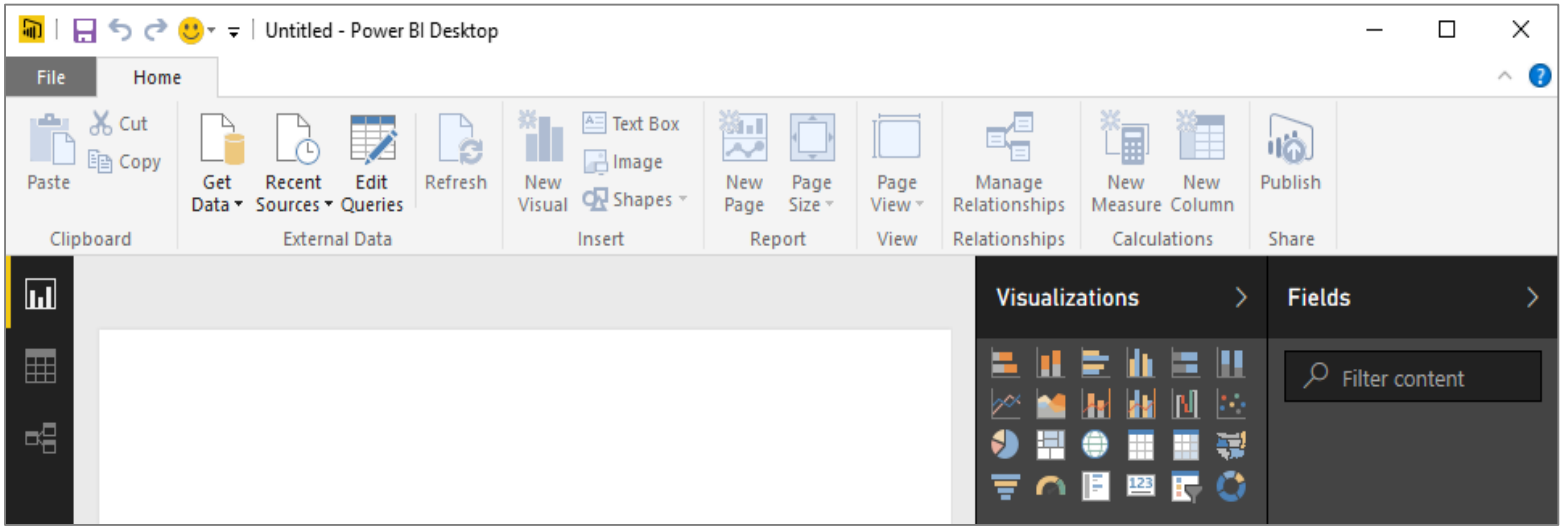
- Power BI Desktop quick & easy to install over the Internet
  - Select Power BI Desktop option from Power BI Download menu
  - Power BI Desktop downloads & installs in less than a minute





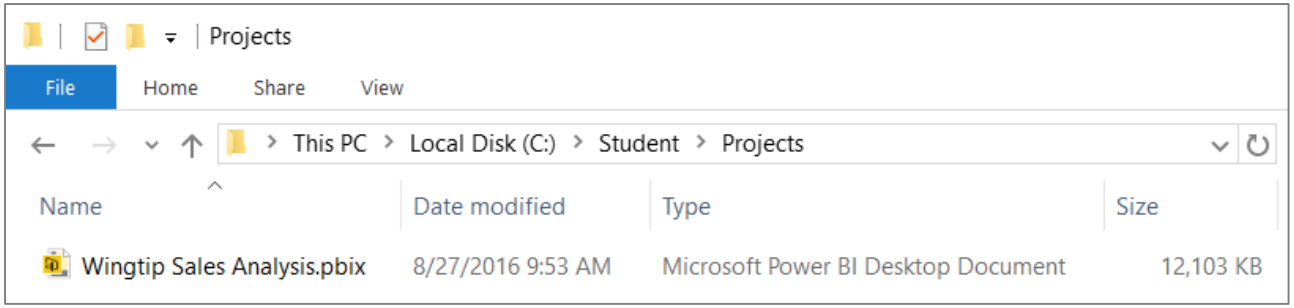
Working with Power BI Desktop

- Power BI Desktop is a Windows application
  - Work is saved and published in terms of projects
  - You can work on multiple projects at once
  - Each project runs in its own Power BI Desktop instance
  - Power BI Desktop can freeze up or act buggy
  - Quit & restart Power BI Desktop if it acts strangely



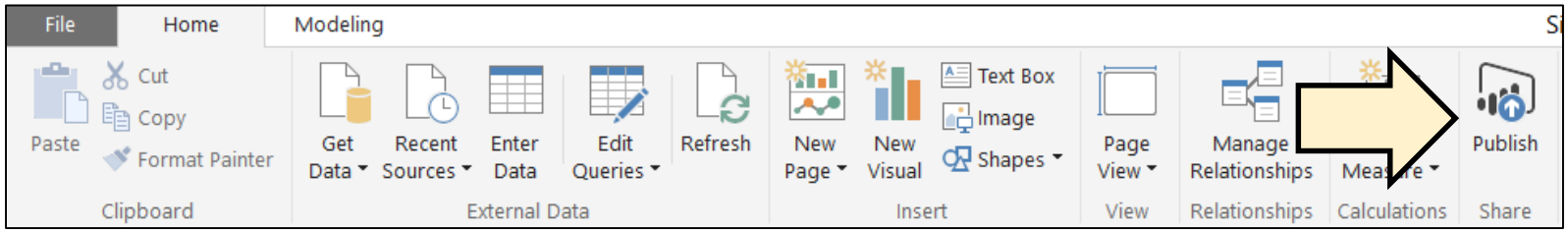
Projects and PBIX Files

- Power BI Desktop projects saved using PBIX files
  - PBIX file contains data source definitions
  - PBIX file contains query definitions
  - PBIX file contains data imported from queries
  - PBIX file contains exactly one data model definition
  - PBIX file contains exactly one report
  - PBIX file never contains data source credentials

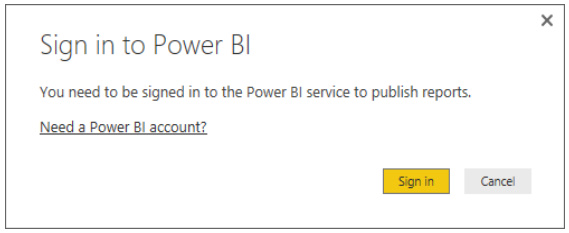


Publishing a Power BI Desktop Project

- Power BI Desktop provides **Publish** command
  - Used to publish project to Power BI service



  - Requires logging into your Office 365 account

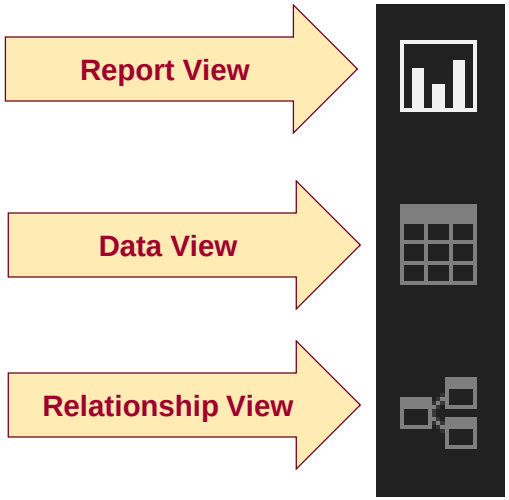


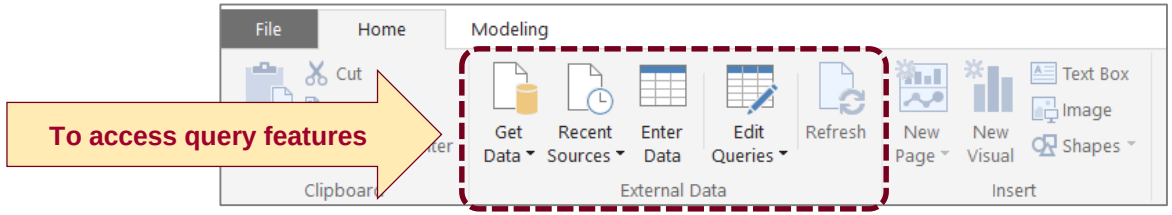
  - Published articles added to target workspace

Getting Around in Power BI Desktop

- What do you need to learn to use Power BI Desktop?
  - Query features for importing data
  - Design features for modeling data
  - Report designer for creating reports

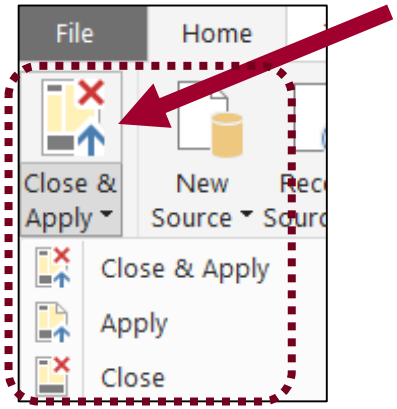
- Navigating between view modes

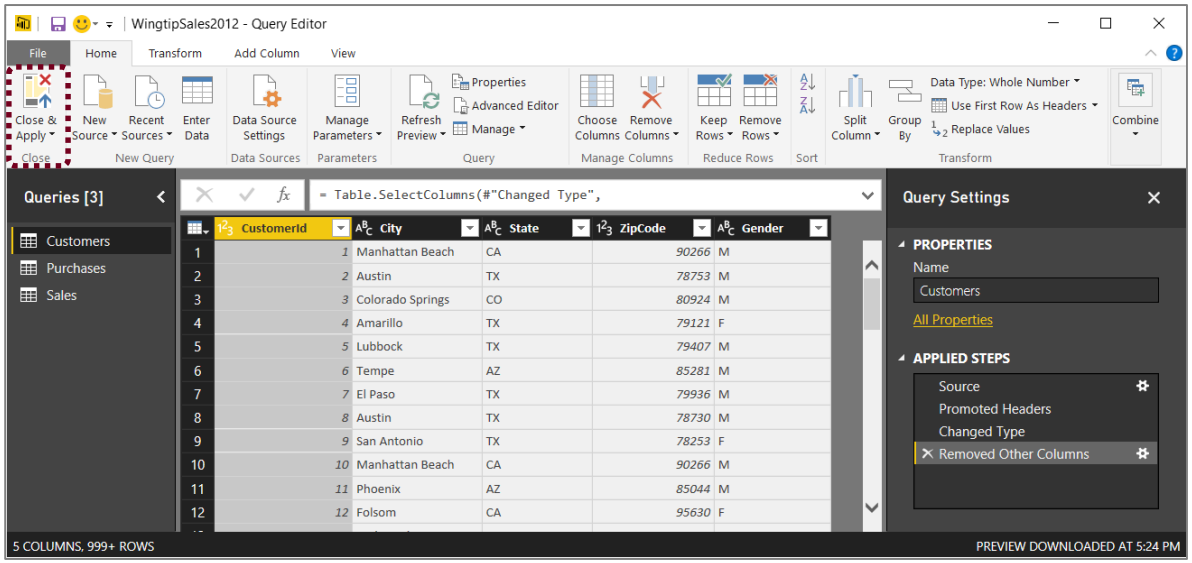




Query Editor Window

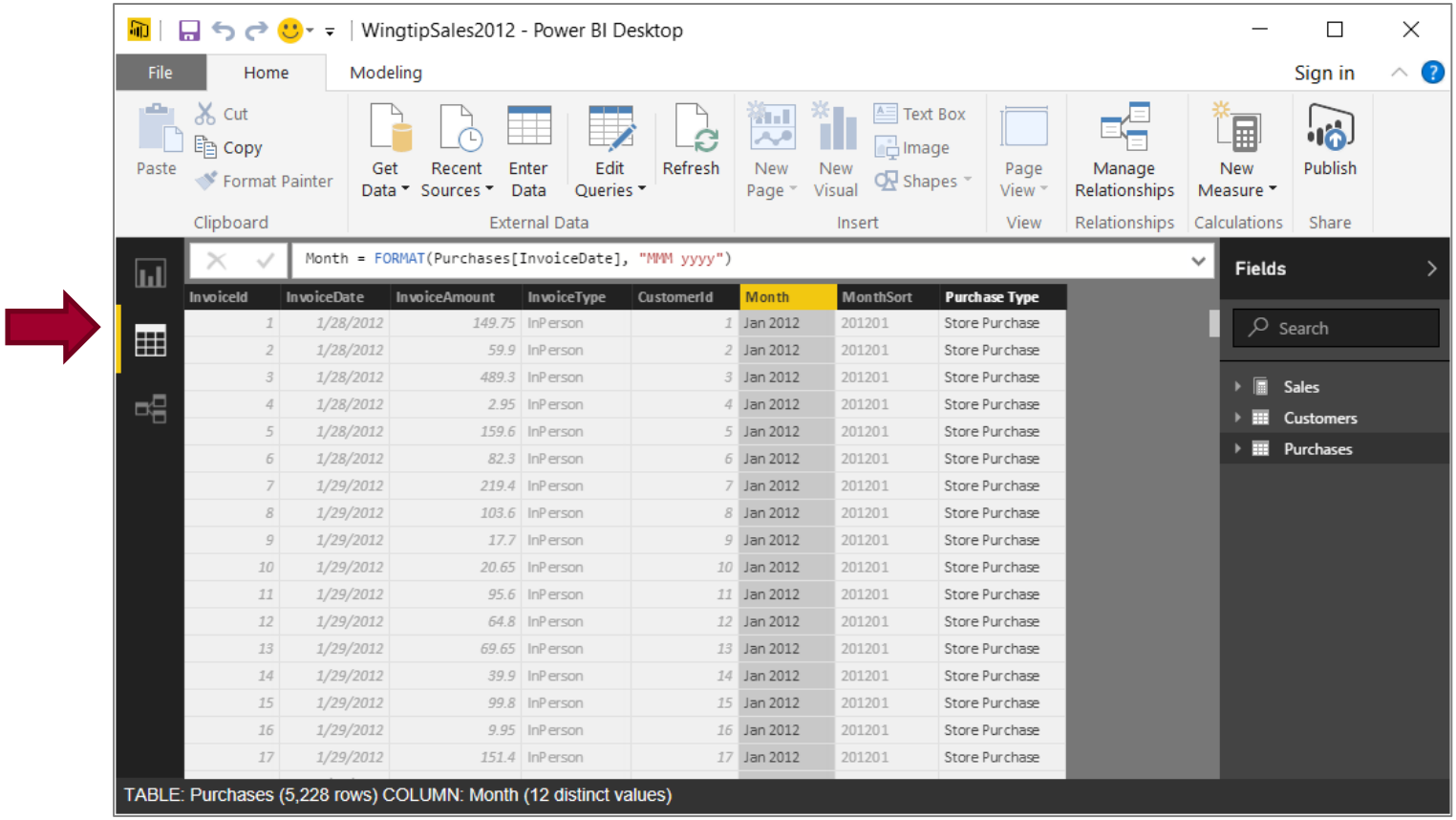
- Power BI Desktop provides separate Query Editor window
  - Provides powerful features for designing queries
  - Displays list of all queries in project on the left
  - Displays **Properties** and **Applied Steps** for selected query on right
  - Preview of table generated by query output shown in the middle
  - Query can be executed using **Apply** or **Close & Apply** command





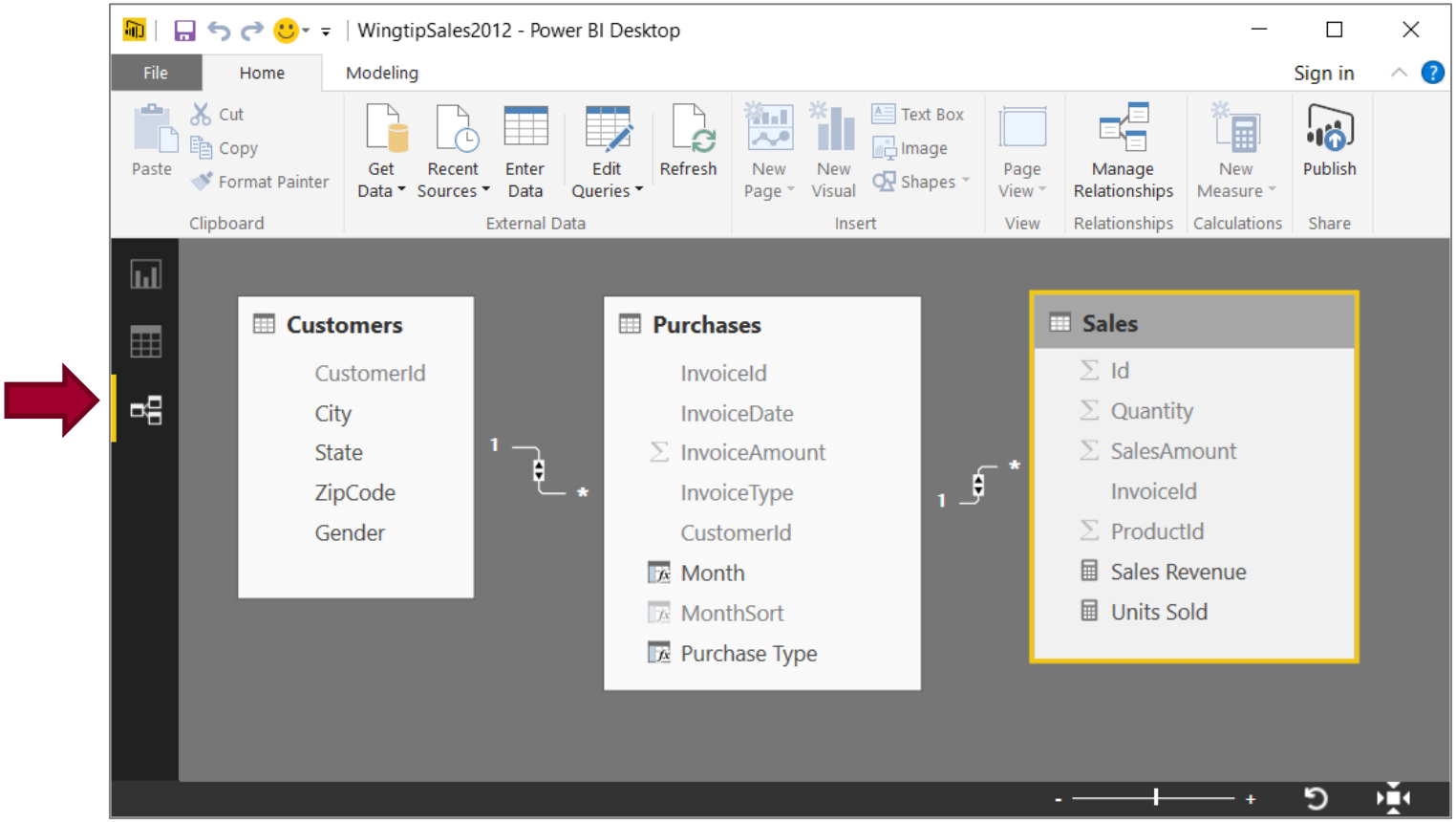
Data View

- Data view is used for data modeling
  - Data View displays columns and rows of data for each table
  - Data View used to create calculated columns and measures



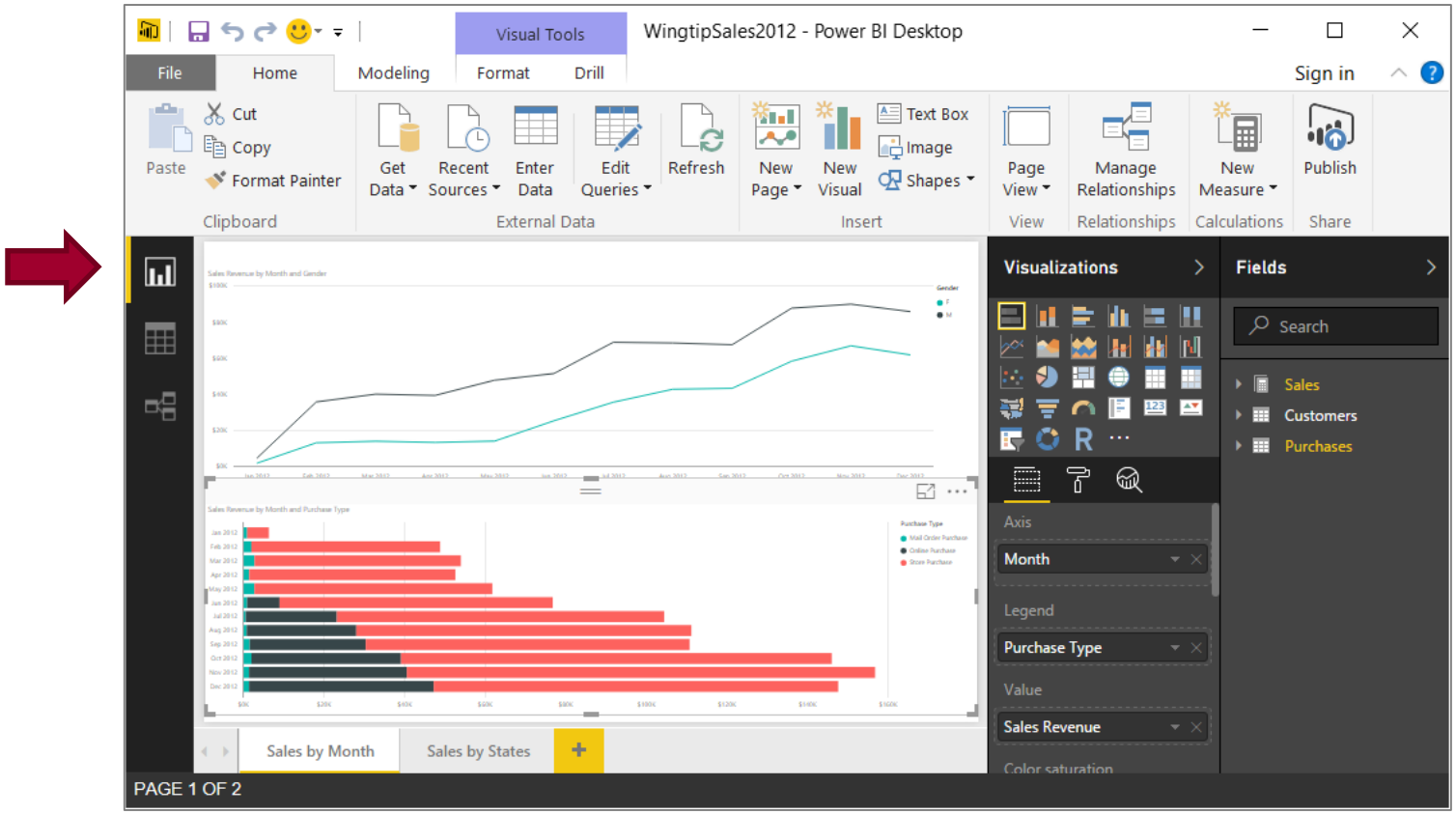
Relationship View

- Displays tables, fields and relationships
  - Used to view tables, fields and relationships in project's dataset
  - Used to create relationships when importing new tables



Report View

- Report view used to design report for current project
  - Report designer is very similar to Power BI service
  - Dataset can be simplified for Report View by hiding fields

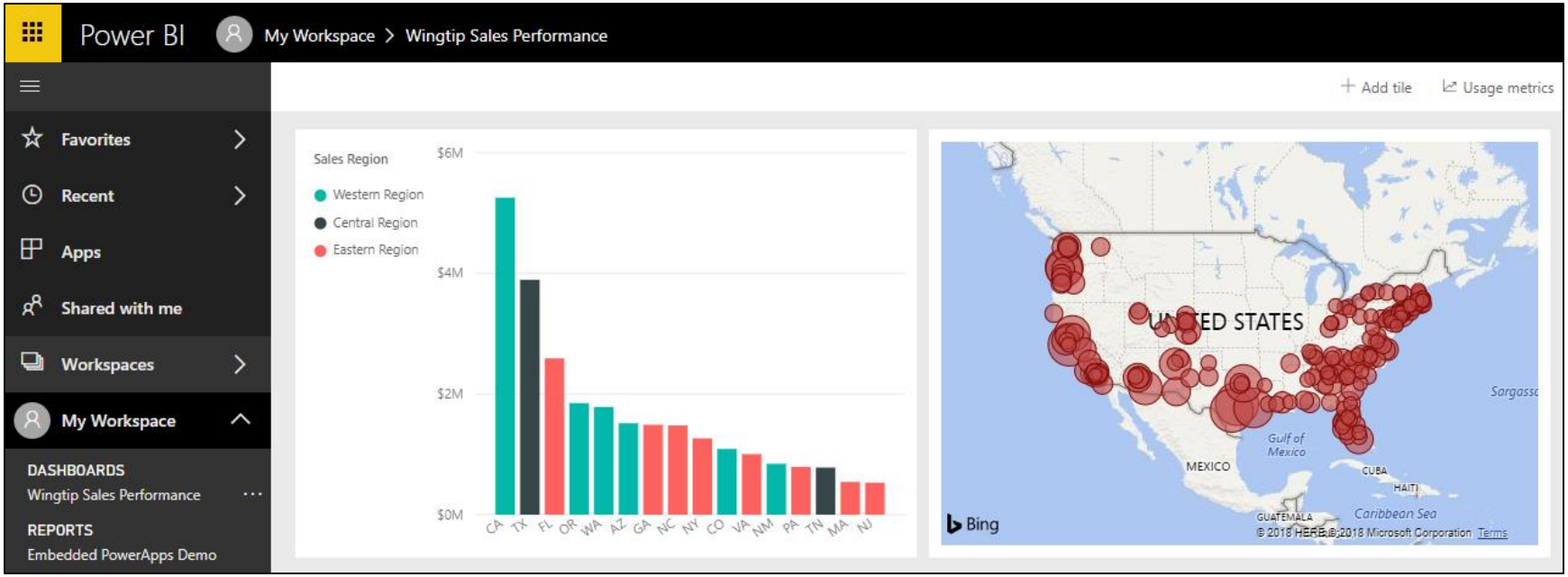



DEMO
Getting Up and Running
with Power BI Desktop

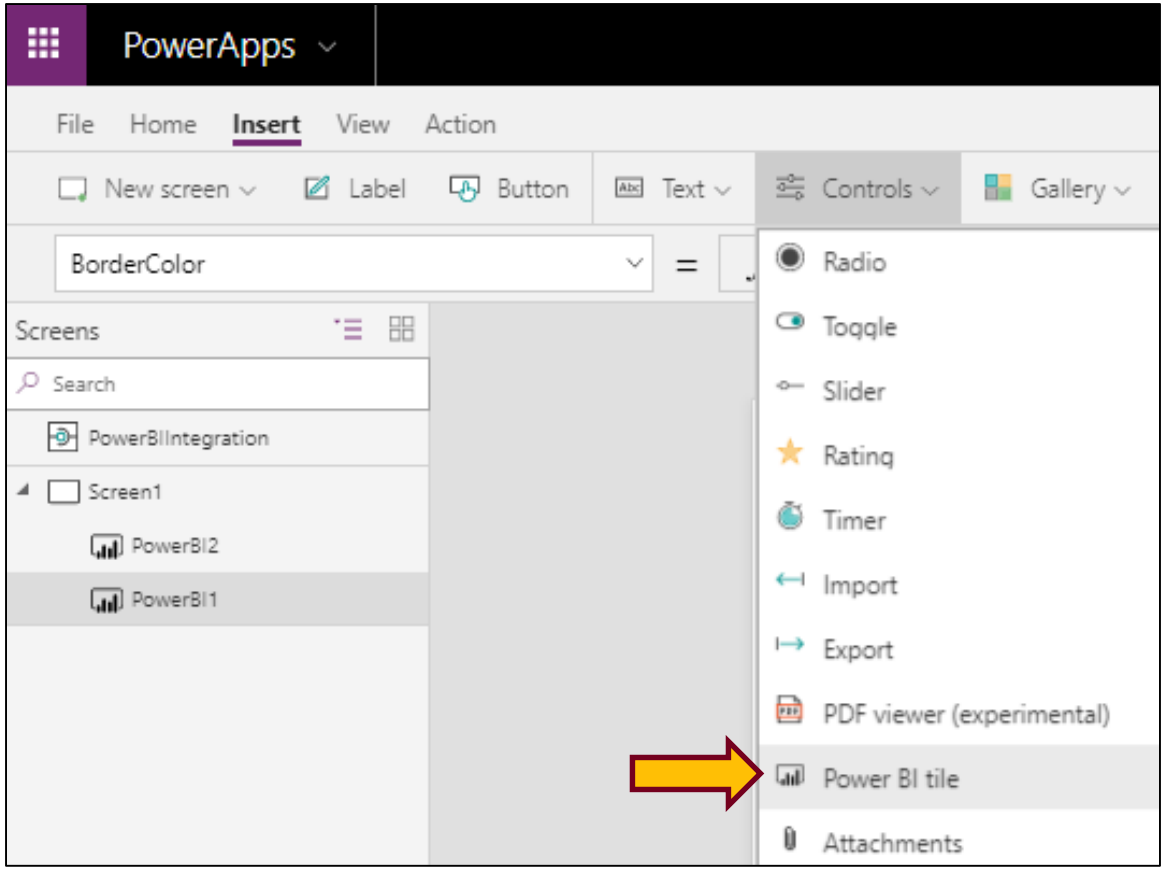
Agenda

- ✓ Power BI Primer
- ➢ Embedding Power BI Dashboard Tiles in PowerApps
- Extending Reports using the PowerApps Custom Visual
- Designing Flows to Update Real-time Dashboards

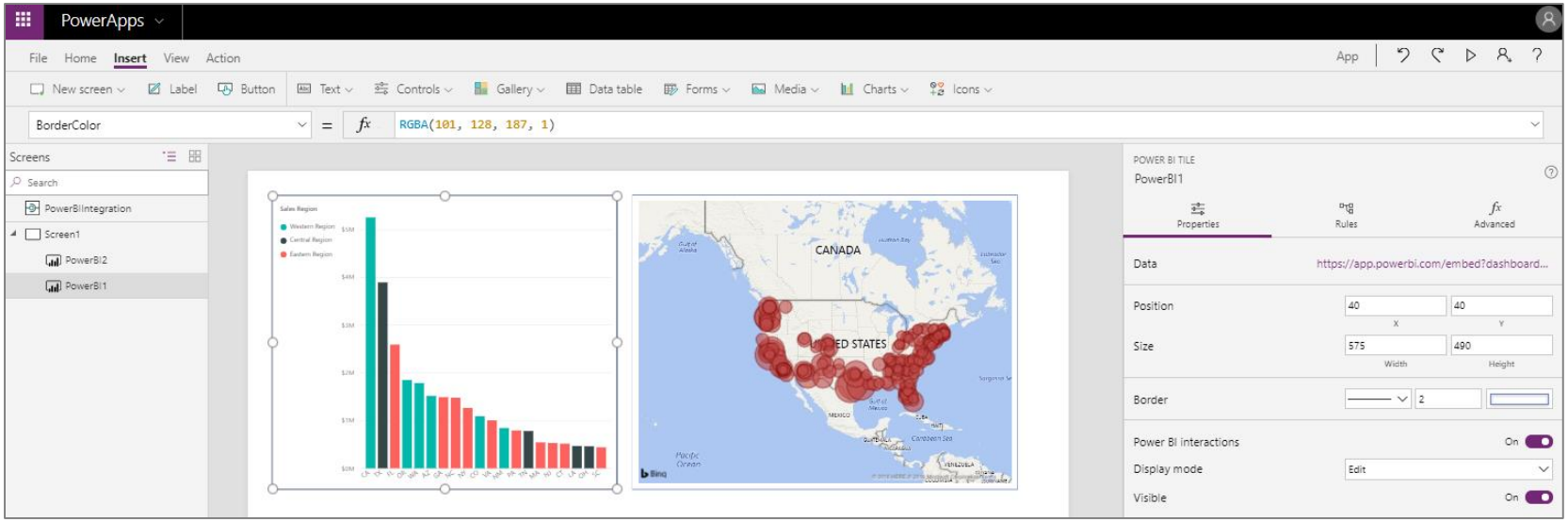
Start by Creating Dashboard Tiles



The Power BI Tile Control in PowerApps



Embedding Power BI Dashboard Tiles



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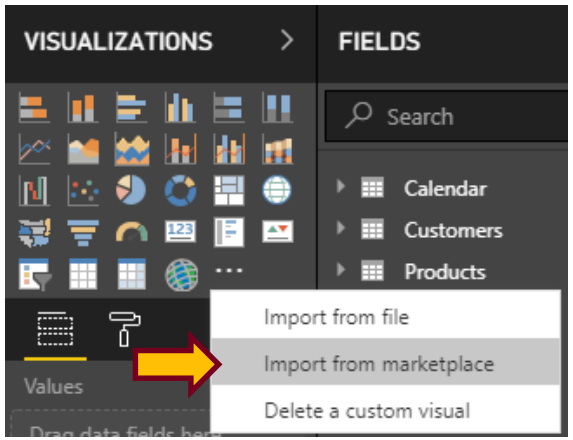
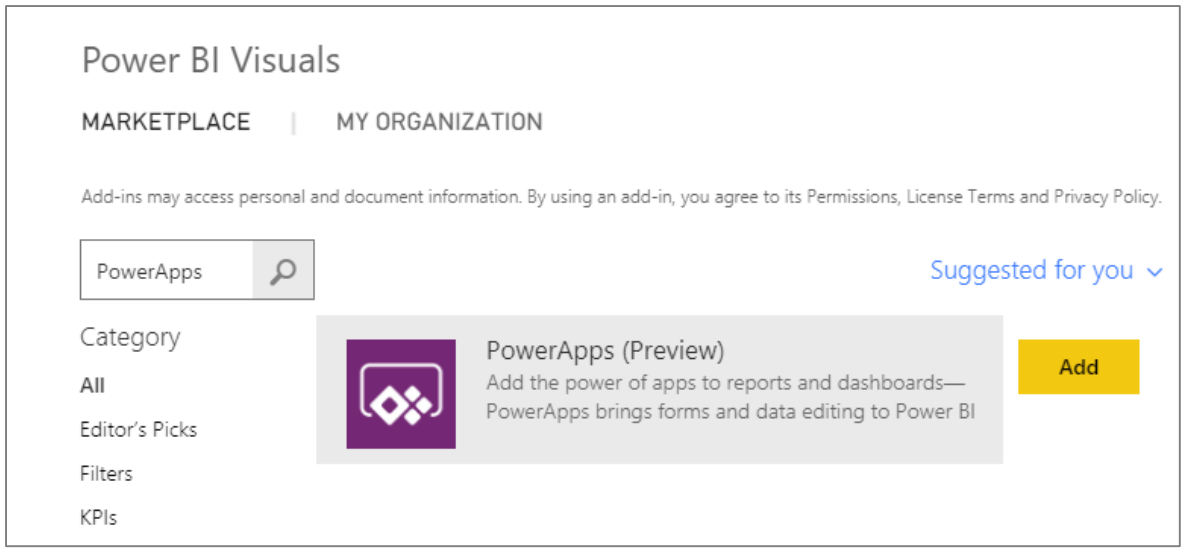
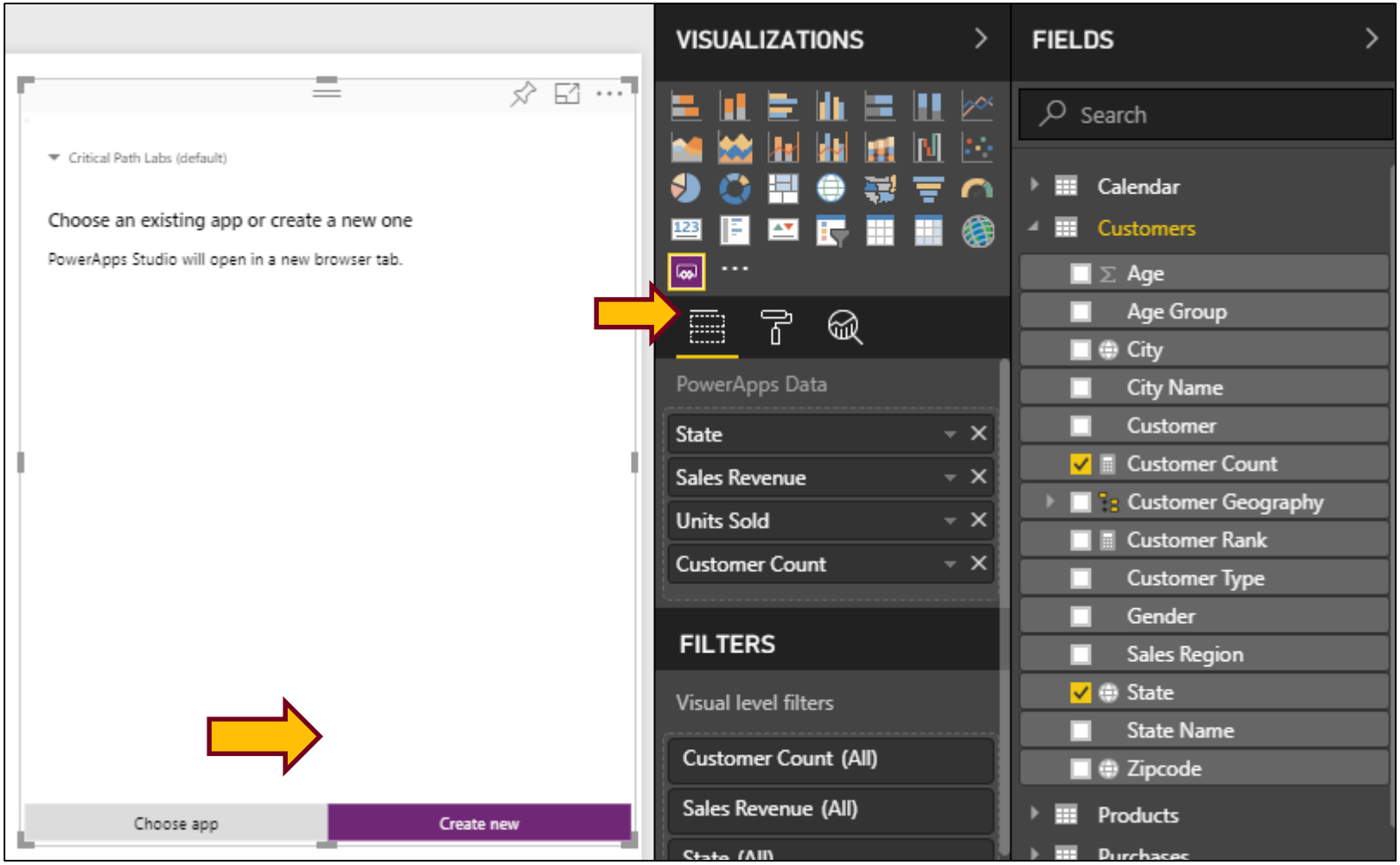
The PowerApps Custom Visual

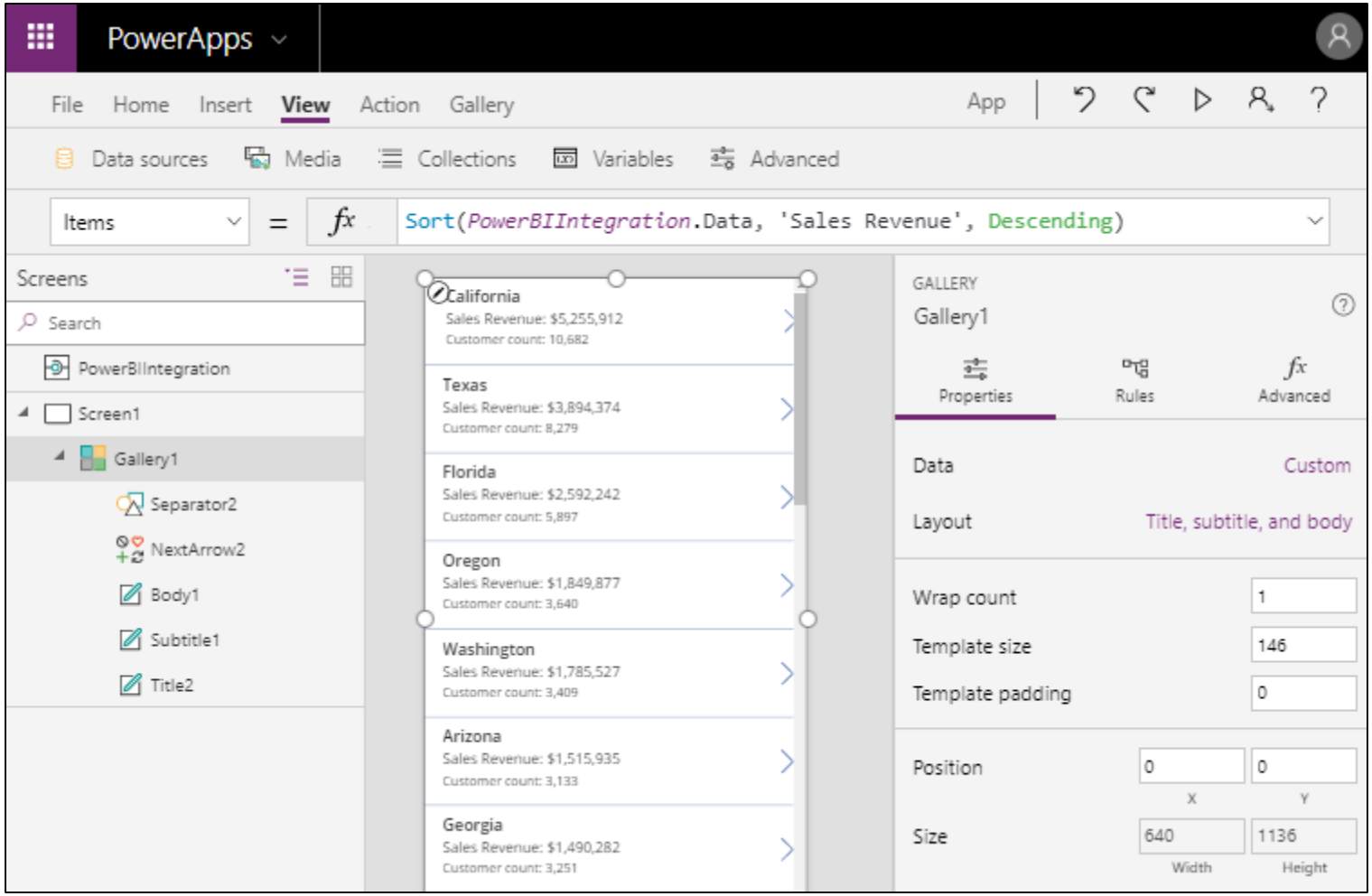




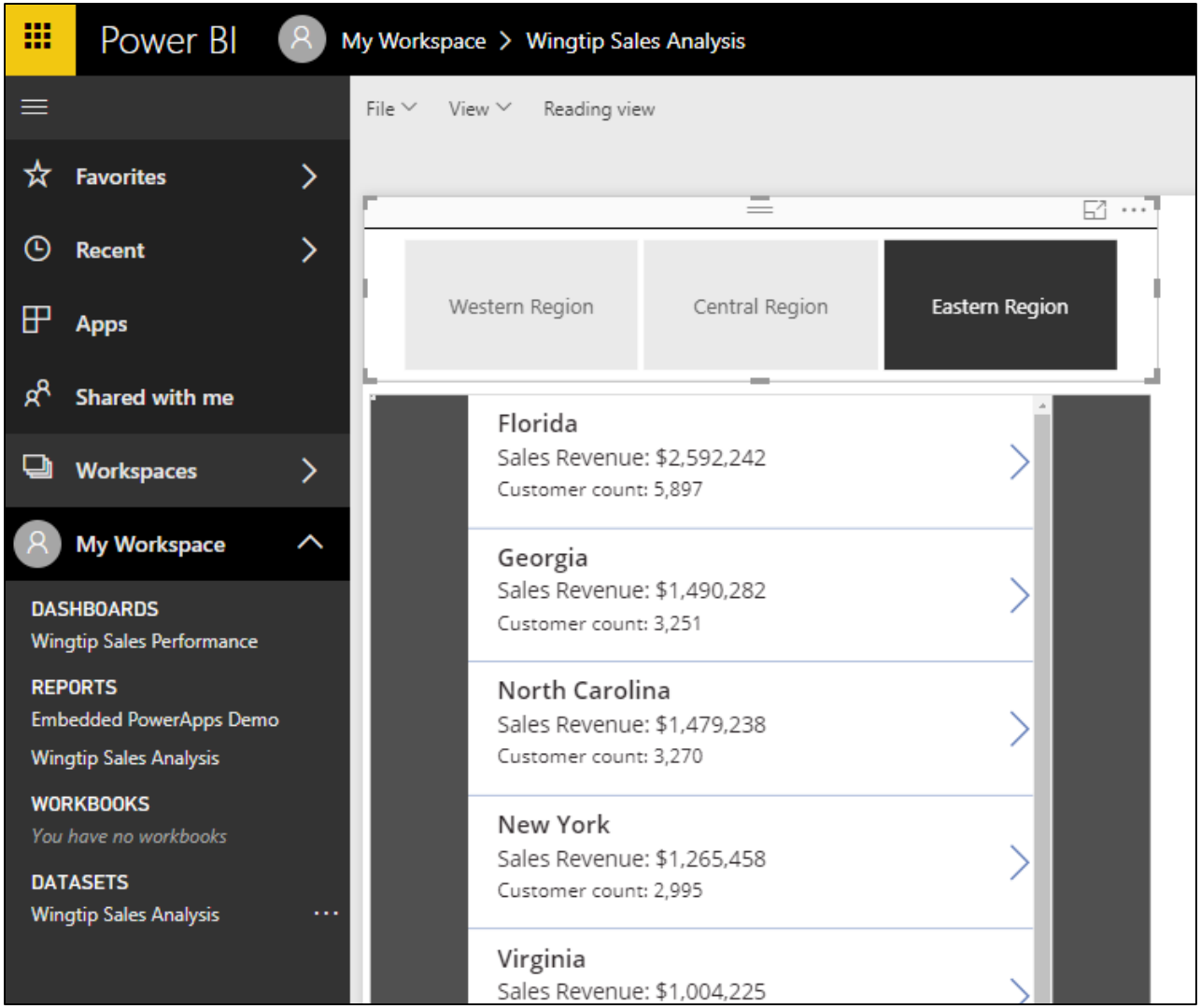
Configuring PowerApps Data Settings



Designing the App in PowerApps Studio



Using the App in Power BI Reports



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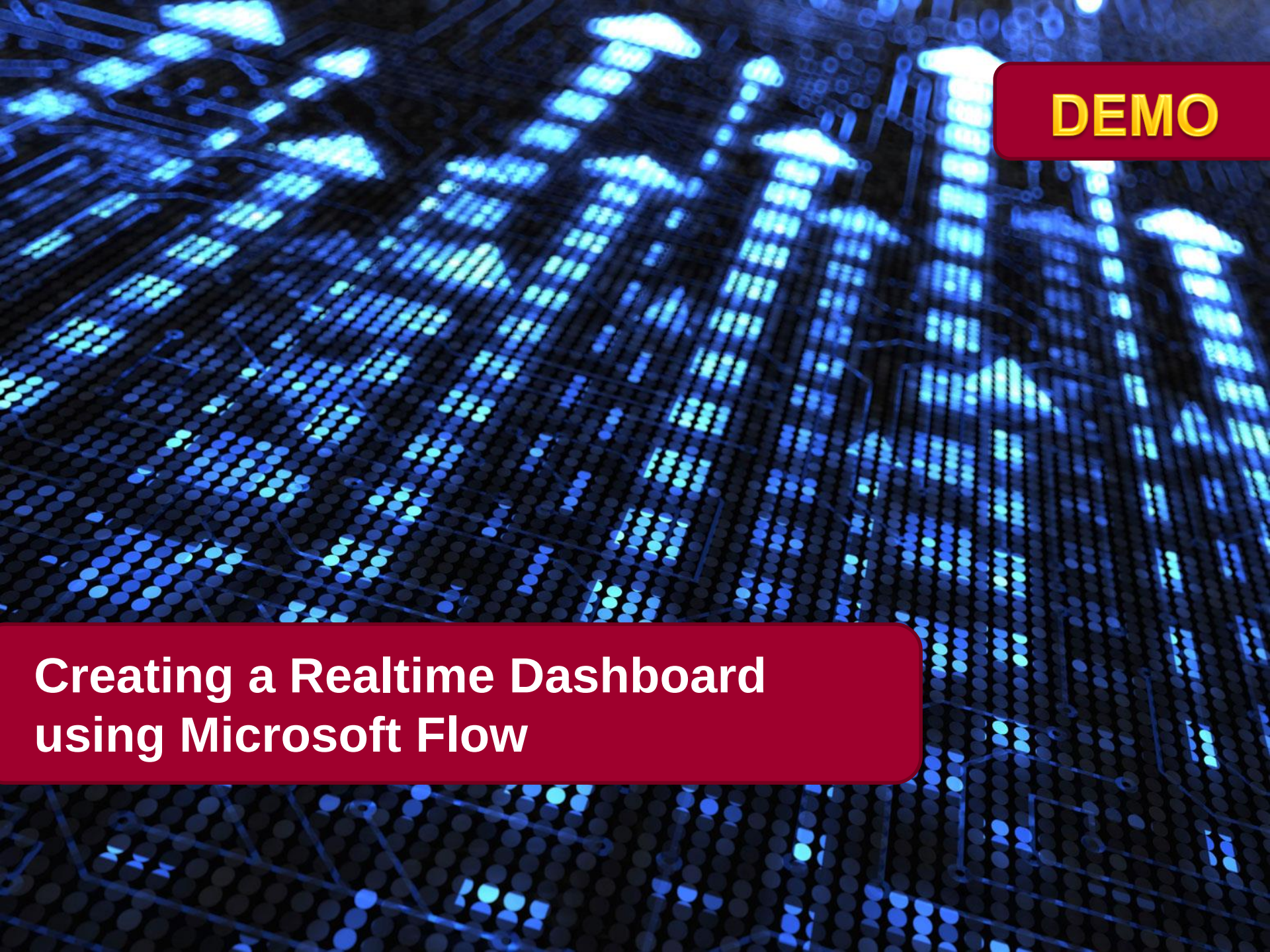
DEMO
Creating a Realtime Dashboard using Microsoft Flow

Summary

- Power BI Primer
- Embedding Power BI Dashboard Tiles in PowerApps
- Extending Reports using the PowerApps Custom Visual
- Designing Flows to Update Real-time Dashboards