KEEPING UP WITH POWER BI UPDATES

Take your reports from basic to impressive

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Your Presenters

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Field of study: Specialized knowledge and applications
What is Power BI?

Power BI is a business analytics tool by Microsoft that provides interactive visualizations and business intelligence capabilities with an interface simple enough for end users to create their own reports and dashboards.
Gartner’s Magic Quadrant 2015 versus 2020

Figure 1. Magic Quadrant for Analytics and Business Intelligence Platforms

Source: Gartner (February 2020)
## Power BI Products

<table>
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<tr>
<th>Product</th>
<th>Description</th>
<th>Use</th>
<th>Cost</th>
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<tr>
<td><strong>Power BI Desktop</strong></td>
<td>Local computer application</td>
<td>Bring in data, and <strong>report creation</strong> and development</td>
<td>Free download</td>
</tr>
<tr>
<td><strong>Power BI Online</strong></td>
<td>Web hosted tool</td>
<td><strong>Share</strong> reports, create dashboards, and schedule data refreshes</td>
<td>Pro: Per user per month license Premium: Combination capacity pricing and Pro licenses</td>
</tr>
<tr>
<td><strong>Power BI Mobile</strong></td>
<td>Mobile app available on Android and iOS</td>
<td>Access dashboards and reports anywhere</td>
<td>Included with Pro or Premium</td>
</tr>
<tr>
<td><strong>Power BI Embedded</strong></td>
<td>Azure cloud product for reports</td>
<td>Add analytics and interactive reports to applications</td>
<td>Azure capacity based pricing</td>
</tr>
<tr>
<td><strong>Power BI Report Server</strong></td>
<td>On-premises reporting solution</td>
<td>Share reports and create dashboards on-premises instead of Power BI Online</td>
<td>Premium: Combination capacity pricing and Pro licenses</td>
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2020 UPDATES

Power BI Desktop
Top Power BI Desktop Updates in 2020

- Incremental Refresh – available for Pro
- Hierarchical Slicer – generally available
- New Ribbon – generally available
- New Visualization Icons
- Buttons – Page Navigation, Drill Through & conditional formatting
- Filter Pane search
- Decomposition Tree updates – generally available
- Multi-column sort for tables
- Conditional formatting for subtotals and totals
- Conditional formatting for subtotals and totals
- Q&A updates & enhancements
- Customize Theme
- Relative time filter – generally available
- Updated Mobile Authoring
- Gradient Legend
- Azure Visual Maps (preview)
- Launch external tools from Power BI desktop (preview)
Initially, this was a feature for Premium users and this year has been extended to Pro Licensed users.

Only data that changes will be refreshed through this process.

This leads to shorter refreshes, less consumption of memory and other sources, and more reliable refreshes.
Hierarchical Slicer – Generally Available

• Dynamically slice and dice data with a hierarchical slicer to match your organization's needs

• Customize indentation, font & icon size

• Supported with AI visuals
New Ribbon – Generally Available, Updated Visualization Icons

- Default as of March 2020 release
- Intended for familiarity across other Microsoft products and an improved report development experience
Buttons – Page Navigation, Drill Through

• No longer have to save a bookmark for Page Navigation, now it's listed as an Action Type for your buttons

• There you can choose the destination page

• Invoke Drill through prompt after specific conditions are met; i.e. selecting a field to drill through on
Conditionally Format Drill Through & Navigation

• Drill through button action generally available

• Use conditional formatting to set the drill through destination based on the output of a measure, including disabled and enabled settings

• Use conditional formatting to set the navigation landing page based on the output of a measure
Filter Pane Search

- Allows you to search for specific filter cards in your filter pane

- Able to format and customize the search box along with the entire filter pane
Decomposition Tree Updates

• Data Bar length remembers the maximum value of the data range through scrolls, so ratio display stays intact

• Size & Range are improved as you can choose the amount of bars included and scroll effectively

• Now generally available
Multi-Column Sort for Tables

- You can now add multiple columns to your tables sort order
- Simple combination of **Shift + Click**
- Ability to easily change direction on multiple column as well
Conditional Formatting – Subtotals, Totals

• You can now apply conditional formatting rules to totals and subtotals in a table & matrix visual
• Found in the Conditional Formatting section for your visual
• Planning to add more in the future

Background color - *SalesAmount*
Q&A Updates and Enhancements

- Suggest questions to your end users
- Measure conditions are now supported
- Q&A supported for Power BI datasets
- New synonyms for tables and fields
- Visual renames offered as suggested synonyms
- Orange underlines for ambiguous terms that require further definition
- Updates & changes to Q&A pop-out
Customize Theme

- You can now browse through default / included themes within the Power BI desktop application

- Additional features include:
  - Saving your current theme & being able to share that theme with other developers (replaced the export option)
  - Updating your theme
Relative Time Filter

• Now generally available

• Filter on smaller windows of time through time-based filters down to the minute

• Created to help adapt to faster and faster refreshes
Updated Mobile Authoring

- New phone emulator & canvas grid
- More flexibility in sizing and placement of visuals
- Updated visualization pane to provide increased visibility into visual names & visible visuals
- Ability to overlay visuals to increase usability of cards, images and buttons
Gradient Legend

• Include a legend based on a conditionally formatted color scale

• Conditionally format data colors on visuals
  – Stacked bar, column chart
  – Clustered bar, column chart
  – 100% stacked bar, column chart
  – Scatter chart
Azure Visual Maps (preview)

- Additional visualization layers that work with Power BI features such as tooltips, themes, filters & slicers
  - Bubble layer
  - 3D bar chart layer
  - Reference layer
  - Custom tile layer
  - Real-time traffic overlay
Launch external tools from Power BI desktop (preview)

• Supports external-tools to provide additional functionality
  – Analysis Services
  – Dax query/expressions
  – Application lifecycle management
Additional Power BI Desktop Updates in 2020

- First/Last NonBlank Value DAX
- Change detection & enhancements (preview)
- Dual Axis for Line Chart
- Query Diagnostics generally available
- Rectangular lasso select
- Direct Query for AI Visuals
- Drop Shadow
- Automatic Page Refresh generally available (pro and premium)

- AI Insights generally available
- Line Chart dot formatting options
- Updates to Model View
- Customize slicer header text
- Support for Excel financial functions
- Model View enabled for live connect
- Global option to disable automatic type detection
- Apply all filters (preview)
2020 UPDATES

Power BI Service
Top Power BI Service Updates in 2020

- Workspaces new look
- Copy & paste visuals
- Dataset impact analysis
- Improved report usage metrics
- New search experience
  (global search)
- Featured content on Power BI home
- Personalize views (preview)
Workspaces New Look

• 'New Look' implemented to service last year, applied to workspaces

• What's changed?
  - Get data
  - View Switcher
  - Search within workspace
  - List and tabs
  - Filters
  - Quick actions
Copy a Visual as an Image

- Static image of visual along with its metadata
- Copy from a dashboard Tile
- Copy a report visual
- Solutions to FAQs
  - Toggle ability to copy specific visual
  - Disable group of users from being able to copy visuals
  - Sensitivity labels
Dataset Impact Analysis

- Ability to understand how dataset is being used within the workspace & in other workspaces

- Lineage view
  - Ability to visualize entire data journey from a given workspace
  - Cross-workspace lineage – upstream and downstream
  - Usage Metrics
  - Contact info & additional artifacts
Improved Report Usage Metrics

- Information about report views & its viewers
- Pre-generated report based on the last 30 days of data/content
- Dataset automatically created when usage metric report is launched
New Search Experience (Global search)

- Allows users to search for reports, dashboards, apps, and workspaces from any page in the product (i.e. Truly *global*)
- Zero-query: Recent
- More relevant Results
- Search Results page

*Pro tip:* Access the search box at anytime by using the keyboard shortcut "CTRL + /".
Featured content on Power BI Home

- Setting default recommended content for end users so they can quickly find the reports that frequently add significant value to their organization
- Dedicated section on Home to promote reports, dashboards, and apps
- Ability to add descriptions and snapshots to reports and dashboards
Personalize Views (preview)

- Power BI end-users can now modify & save their customizations to visuals in a Power BI report in the Power BI service

- Takes "Ad Hoc Reporting" to the next level

- Ability to capture & share changes with a larger audience

- Be sure to enable this Preview Feature in your Global Settings
Additional Power BI Service Updates

- Custom navigation for Power BI apps – generally available (GA)
- New way to access apps
- Microsoft Teams support
- Shared & Certified datasets GA
- Updates to On-premises data gateway
Top Power BI Premium Updates in 2020

• January 2020 Report Server Features
  − Export data from a visual
  − Custom URLs in column or matrix value
  − KPI formatting
  − Conditional formatting for buttons
  − Analyze insights enhancements
  − Quarter DAX functions
  − Data profiling enhancements
  − New file format
  − Modeling performance improvements

• February Premium Updates
  − Bring Your Own Key (encryption key)

• March Premium Updates
  − Read/Write XMLA endpoints (preview)
  − Improvements for Multi Geo Premium Capacities

• May 2020 Report Server Features
  − Hierarchical Slicer
  − Action types for buttons, fill image in buttons
  − Multi-column sort for tables
  − Dial axis for line charts
  − Conditional formatting on subtotals & totals
  − Customize theme dialog
  − Filter Pane updates
  − Decomposition Tree
  − Updated DAX
  − New visualization icons
  − Query Diagnostics

• May Premium Updates
  − Timely Premium Capacity Overload alerts
REMAINDER OF 2020 UPDATES

Tips for keeping up to date on the latest updates
Upcoming Updates Page – Desktop

- Apply all button for report filters – Oct. 2020
- Q&A synonym improvements – Dec. 2020
- DirectQuery support for Q&A – Jan. 2021
- Lasso select for data points (Public preview) - Oct. 2020
- Power Automate visual (Public preview) - Oct. 2020
- User editing of DirectQuery query parameters (Public preview) - Oct. 2020
- Composite models over Power BI datasets & Azure Analysis Services (Public preview) - Nov. 2020
Upcoming Updates Page – Services

• Workspaces
  – Workspace upgrade generally available – Summer 2020
  • Depreciation of classic workspace – Oct. 2020
  • Access to mass upgrade for classic workspace
  • Automatic upgrade of classic workspace
• Overload alerts – Oct. 2020
• Dataflows DirectQuery – Oct. 2020
• Dataset refresh overview – Oct. 2020
  • Enhanced export & subscription support for Power BI reports – Oct. 2020
• New look rollout to all users – Oct. 2020
• Power BI admin: Ability to upgrade classic workspaces to version 2 workspaces – Oct. 2020
• Connect to Power BI datasets directly in Excel
• Power BI dataflows and Azure Data Lake Storage integration at workspace level – Dec. 2020
Next Steps

- **Download the latest version of Power BI Desktop**
  Keeping up to date will allow you and end users to take advantage of new and improved functionality.

- **Improve and enhance reports and visualizations**
  By continuing to improve your reports, you will make them more user friendly, insightful, and powerful.

- **Keep up with upcoming updates**
  Follow the Microsoft Power BI blog for the latest updates and/or attend local or national Power BI conferences/events.

- **Reach out for assistance and ask questions**
  RSM has Power BI experts and data analytics consultants who are here to help with questions or provide BI services.
### Data Analytics Solutions

#### Data Integration & Migration
- DIMS
  - ERP & System Migration
  - Data Mapping
  - Data Profiling
  - Systems Integration
  - Extract Transform Load (ETL)

#### Corporate Performance Management (CPM)
- Financial Close
  - Account reconciliations
  - Period-end checklists
  - Variance analysis
  - Journal entries
  - Intercompany eliminations
- CPM
  - Budget/Forecast Modeling
  - Scenario Planning
  - Financial Statements
  - Management Reporting
  - Dashboards (basic)
  - Financial Consolidation

#### Business Intelligence (BI)
- BI
  - Data Warehousing
  - Master Data Management
  - Dashboards (advanced)
  - Data Governance
  - Big Data / IoT

#### Advanced Analytics
- Advanced Analytics
  - Predictive Analytics
  - Prescriptive Analytics
  - R & Python Scripting
  - Machine Learning
  - AI/Neural Networks

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Useful Links

• RSM BI Blog

• RSM Data Analytics

• Microsoft Power BI Blog:
QUESTIONS AND ANSWERS