Power BI Desktop: New Report Authoring Features

# **Summary**

The purpose of this document is to serve as supporting reference to new report authoring and visualization features added to the Power BI Desktop application. Power BI Desktop is a free business intelligence design and development application containing rich capabilities in data connectivity, transformation, modeling, and report/dashboard development. Business intelligence artifacts created within Power BI Desktop such as datasets and reports can be published to the Power BI Service and consumed by Power BI users.

* New features and enhancements related to data connectivity, modeling, transformations, and general Power BI features are outside the scope of this document.
* Power BI Documentation Update Archive is maintained here: <http://bit.ly/2t6fRUE>
* This document will be updated with future Power BI report authoring updates (e.g. July 2018 Update) and may be enhanced with further details and examples.
  + As of 4/5/18, this document only identifies new report authoring features and improvements since the September 2015 update.

# **Monthly Update Links**

|  |  |  |
| --- | --- | --- |
| [Sep-2015](#Sep2015) | [Oct-2015](#Oct2015) | [Nov-2015](#Nov2015) |
| [Dec-2015](#Dec2015) | [Jan-2016](#Jan2016) | [Feb-2016](#Feb2016) |
| [Mar-2016](#Mar2016) | [Apr-2016](#Apr2016) | [May-2016](#May2016) |
| [Jun-2016](#Jun2016) | [Jul-2016](#Jul2016) | [Aug-2016](#Aug2016) |
| [Sep-2016](#Sep2016) | [Oct-2016](#Oct2016) | [Nov-2016](#Nov2016) |
| Dec-2016 | [Jan-2017](#Jan2017) | [Feb-2017](#Feb2017) |
| [Mar-2017](#Mar2017) | [Apr-2017](#Apr2017) | [May-2017](#May2017) |
| [Jun-2017](#June2017) | [Jul-2017](#July2017) | [Aug-2017](#Aug2017) |
| [Sep-2017](#Sep2017) | [Oct-2017](#Oct2017) | [Nov-2017](#Nov2017) |
| [Dec-2017](#Dec2017) | [Jan-2018](#Jan2018) | [Feb-2018](#Feb2018) |
| [Mar-2018](#Mar2018) | [Apr-2018](#Apr2018) | [Jun-2018](#Jun2018) |

# **Feature Updates**

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| --- | --- | --- | --- | --- |
| **#** | **Feature or Improvement** | **Detail** | **Image(s)** | **Update Month** |
| 1 | Report-Level filters | Could only filter report pages and individual visualizations before this update  Can now filter all visualizations in all report pages from single filter |  | Sep-2015 |
| 2 | Drill Up/Down for column and scatter charts | Three new controls   * Drill Up * Drill All to next level   + Will go to city level * Click to turn on Drill Down mode   + When enabled, can click the bar on the chart and drill into the specific items for that given selection   \*Can still cross filter; filter drill down chart by other chart selection |  | Sep-2015 |
| 3 | New Page Size and Page View options | * Page Size:   + 16:9, 4:3, Dynamic, Letter, Custom   + Could have different page sizes within report * Page View * Select Canvas of report page and then formatting option (paint brush under Visualizations)   \*Can expand/collapse panes and use scroll bars to view content with different page views |  | Sep-2015 |
| 4 | Inserting Shapes in the Report canvas | * Can insert and format shapes in the report * Full formatting options of shapes (fill, width, aspect ratio, title, background, title) |  | Sep-2015 |
| 5 | Search box for fields pane | * Can type in ‘customer’ and search will filter and highlight table and columns that match search condition |  | Sep-2015 |
| 6 | Expand/Collapse All in fields pane | * Right-click one of the tables can also Collapse All and Expand All to more easily navigate a data model with many tables and columns |  |  |
| 7 | Field well cardinality support | * Drag-replace for buckets with 1 item   + Chart with field X on legend, can be updated to use field Y without removing existing field X |  |  |
| 8 | Additional Data Label formatting options | * Display in Auto is default but can show values in millions, thousands, etc * Precision (decimal places) |  | Sep-2015 |
| 9 | X-Axis Label Direction | * Charts automatically adjust to (Horizontal/Diagonal) depending on width of members on visual |  | Sep-2015 |
| 10 | Logarithmic & Linear scales for Y Axis | * Formatting pane, Y axis section of formatting pane with chart selected |  | Sep-2015 |
| 11 | Display Text for hyperlinks in textboxes | * Don’t have to show the URL in the link; just show friendly text   + Use flyout menu when configure text box; insert link and type URL |  | Sep-2015 |
| 12 | Improvements to existing visualizations:   * Table, Matrix, Slicer, Scatter Chart, Single Cards, Combo Charts and Gauges | * Table and Matrix   + Resize columns * Tree maps support data labels * Slicers   + Ability to select all or unselect all via single click   + Additional formatting options for slicers (title, font, row, etc) * Scatter chart   + Bubbles color * Single Cards   + Formatting, labels, cat labels, word wrap, title * Combo Charts   + Performance improvement, will render faster * Gauge   + Customize min, max, and target values by using fields from pane |  | Sep-2015 |
| 13 | Color Saturation values in tooltips | * You now see the value of the saturation metric when you hover your mouse over the bar |  | Sep-2015 |
| 14 | Resize images and apply additional formatting options | * More options for formatting shapes and images * Title or not * Background colors and transparencies images |  | Sep-2015 |
| 15 | Custom Visualizations | * Use visuals from PBI Gallery in PBI Desktop * App.powerbi.com/visuals * Browse for .pbiviz file and visualization will have a new icon in visualizations pane in pbi desktop * All other visuals will respect filter selection just like standard provided visuals * Formatting options just like other PBI visuals |  | Oct-2015 |
| 16 | Insert Visual from Ribbon | * Inserts a blank visual, defaults to column chart |  | Oct-2015 |
| 17 | Default Sorting | * Visuals may automatically sort by axis values alphabetically * Descending default sort when choosing to sort by a metric in visuals |  | Oct-2015 |
| 18 | Funnel Chart Formatting | * Tooltips * Data label customizations   + Inside or outside bar |  | Oct-2015 |
| 19 | Slicer Formatting | * Can sort slicer items * Can change font size   + See formatting pane when slicer is selected   + Full control of header and rows |  | Oct-2015 |
| 20 | Gauge Formatting | * Now you can control values from fields (Sept Update) but also use formatting pane to apply hard coded values * Can also customize title and background for gauge |  | Oct-2015 |
| 21 | Data Label Layout | * Prevent labels from overlapping; improved positioning algorithms |  | Oct-2015 |
| 22 | KPI (Preview Feature) | * Exposing as early preview to get feedback only * If there are KPIs configured in SSAS Tabular, with live connection you can use the KPIs * If there were KPIs in Power Pivot for Excel you imported, you can use them too |  | Oct-2015 |
| 23 | Play Axis for Scatter Chart visualization | * Was popular in Power View for Excel; now available in PBI Desktop * Click ‘play’ to see animation render or pause at specific value |  | Nov-2015 |
| 24 | Horizontal Slicers | * Control orientation of slicer items (vert or horizontal) * Default is vertical * With slicer selected, go to formatting pane and change orientation |  | Nov-2015 |
| 25 | Slicer Selection Behavior | * Single Select vs Multi-Select * Select All   + With on, select all member will appear allowing you to quickly remove all filter selections * Single Select   + Can force selection to mutually exclusive or allow for selecting multiple members |  | Nov-2015 |
| 26 | Control Z-order | * Can move images and visuals forward or backward to control formatting when overlaying images |  | Nov-2015 |
| 27 | Background Colors for Slides | * Customize background for each report page * Available in formatting pane * Just click anywhere on canvas of page that’s blank (not a visual or slicer)   + Could have different report pages with different colors and sizes (earlier update) |  | Nov-2015 |
| 28 | Interaction between Visuals | * Can now control which visualizations are cross filtered by a given visualization * Select a given visualization   + Enable edit mode of visual interactions   + Click ‘None’ or allow filtering on icons for other visuals on report pages * Can also toggle between highlighting part of the whole when crossfiltered by other visual or just filter to that specific selection from other visual |  | Nov-2015 |
| 29 | Duplicate Pages | * Save time of building reports with similar layout; use page as template * Right click on the page tab at bottom of app, and click ‘Duplicate Page’ |  | Nov-2015 |
| 30 | KPIs and Images in Tables, Matrices and Cards | * Consume KPIs from SSAS Tabular or Power Pivot * Data Tools - Modeling * If you have URL for image in your data model, PBI Desktop will retrieve image |  | Nov-2015 |
| 31 | Improved tooltips in area and line charts | * Improved logic to avoid tooltips overlapping with data points |  | Nov-2015 |
| 32 | Change Text Size in Cards & Tables/Matrix | * Formatting pane * Available for Cards, Tables, and Matrix only currently |  | Nov-2015 |
| 33 | Tooltips and Labels in Field Well and Formatting | * Explain what the given option does to use; in-product documentation * Avoid user getting lost about how to use formatting option |  | Nov-2015 |
| 34 | View Categories with no data | * Visuals will display categories with no data   + If it’s been filtered out for example |  | Nov-2015 |
| 35 | Improved default sort behavior | * Sort ascending by attribute * Sort descending by measure |  | Nov-2015 |
| 36 | Axis Scale display units | * Y axis section, formatting pane   + Auto is default, millions, billions, etc |  | Nov-2015 |
| 37 | Visuals Refresh Optimizations with basic modeling operations | * Not required to refresh all visualizations for many changes that only impact one or a few visuals or part of model |  | Nov-2015 |
| 38 | Format data labels per category series | * With multiple metrics on a chart such as quantity and sales you can format each metric differently |  | Dec-2015 |
| 39 | Control decimal places in visuals | * Select a visual, go to formatting, change decimals for visual |  | Dec-2015 |
| 40 | Change text sizes in visuals | * Modify size of data labels now |  | Dec-2015 |
| 41 | Control layout and alignment of visuals | * Combination of four different capabilities:   + Alignment   + Distribution   + Size   + Position * Control+click to select the charts   + Use align, distribute, arrange options   + Multiple options for ensuring same space in ht/wt   With combination of all options can make all visuals nicely aligned   * Can also select a visual and from formatting General pane can specify specific properties |  | Dec-2015 |
| 42 | Set styles across visuals via Format Painter | * Select an existing visual that has desired formatting/style (text size, background, color, etc) * Click format painter under home tab (icon on ribbon will then become active) * Click a different visual to apply formatting   + All formatting that ‘makes sense’ will get copied into new visual. Not everything come over |  | Dec-2015 |
| 43 | Optimized ‘Home’ ribbon layout | * Some options have been collapsed under dropdowns or resizez * When you resize your PBI Desktop app the ribbon will resize for how much space is available |  | Dec-2015 |
| 44 | Visual cue for sort state in Table visuals | * When you click on metric or hover over the arrow will advise if sorting * Can single click to change sort of table |  | Dec-2015 |
| 45 | Smart tooltips for Area and Line charts on hover | * Hover over will display values from multiple metrics in tooltip * See exact values of categories |  | Dec-2015 |
| 46 | New Visual: Stacked Area Chart |  |  | Dec-2015 |
| 47 | Reference Lines for Cartesian Visual | * In formatting for chart you can set reference line and then apply detailed formatting to reference line including data label |  | Dec-2015 |
| 48 | Improved data labels for pie and scatter chart | * Optimized labels for these two visuals to make better use of space. Display as much as possible |  | Dec-2015 |
| 49 | R Visuals Integration (preview feature) | * Create visuals based on R Scripts in your reports * Specify R script to reference/evaluate * Combine analysis with other visuals (standard or custom) |  | Dec-2015 |
| 50 | Suggested Table to Table relationships | * When you create a visualization that has no relationship defined between tables involved in visualization * Visualization will error and with ‘fix this’ message will offer Relationship Detection * Could be important for large, complex models and users not familiar with all relationships |  | Dec-2015 |
| 51 | Add borders to a visual | * Select visual * Go to formatting pane, scroll to bottom * Turn on border   + Modify color |  | Jan-2016 |
| 52 | Background images for chart plot area and report pages | * Click page background of a report * Format pane * Click Add Image   + Browse for image   + Set transparency * Can also set a background image for the plot area of chart   + Formatting pane   + Plot area   + Add image   + Set transparency and how image fits |  | Jan-2016 |
| 53 | See Data Behind a Visual | * Can also export data to a CSV file * Select a chart * Select Focus mode icon * Click See Data icon in top right of focus mode * Can switch to vertical layout (data) * Use ellipsis to export data to CSV |  | Feb-2016 |
| 54 | Map Improvements | * Plot map with latitude and longitude only * Previously had to provide lat/long and text field (street name, city name, etc) |  | Feb-2016 |
| 55 | KPI Consumption GA | * Now GA   + Also support for navigation hierarchies SSAS MD models   + Can also see KPI Trend (not just status and value) |  | Feb-2016 |
| 56 | SSAS Exploration Mode | * Display folders in Fields pane |  | Feb-2016 |
| 57 | Contextual Ribbon layout | * Single Home tab is split between contextual report tools and Home   + If no visual is selected, only Home and Modeling tab visible   + If a visual (or multiple is selected,   Keeps Home Tab from being too complex; more focused experience |  | Feb-2016 |
| 55 | New KPI Visual | * Allow you to visualize KPI value and trend; relative to measure or value * KPI Visual will turn green/red/yellow based on value to target * Can also define min and desired target values |  | Feb-2016 |
| 56 | Open to Last viewed page when saved | * When you reopen a report, you will go to the page in report last viewed |  | Feb-2016 |
| 57 | “Edit Query” option in table context menu in fields pane | * Select a table in field pane, go straight to edit query for that table * Click ellipsis or right-click and click Edit Quty * Will bring up Query Editor menu   + Much easier to get to table at |  | Feb-2016 |
| 58 | Duplicate page from Ribbon | * Previously only had a right-click from bottom page tab |  | Feb-2016 |
| 59 | Publish reports to a Group Space in PBI Service | * First publish of a report provides options to choose destination workspace including group workspaces * Published report is immediately available to group workspace members |  | Mar-2016 |
| 60 | Do Not Summarize setting respected from SSAS MD models | * IsAggregatable property set to False in SSAS Multidimensional * PBI now respects this property * This feature only works with live connection setting, not with imported data |  | Mar-2016 |
| 61 | Formatting styles for Table, Matrix, and Multi-Row Card | * Rich formatting control over the grid lines (vertical and horizontal), the headers (column only for table), the values of the table including an alternate row format, and the totals row |  | Apr-2016 |
| 62 | Trend lines on visuals | * For chart visuals that so |  | Apr-2016 |
| 63 | Drill Action – See Records | * View data behind individual data label in chart * Can now control drilling from ribbon as opposed to only within the charts | With See Records Enabled you can single click a bar to drill into the values of that specific data label  You can also right-click a bar and use See Records button | Apr-2016 |
| 64 | Map auto-zoom during drill/filter | * Adding/removing data to map visual automatically adjusts zoom to show data selected |  | Apr-2016 |
| 65 | In-line hierarchy labels (preview) | * Parent data label is appended to child data label when drilled to lower level   \*Not applicable with natural hierarchy |  | Apr-2016 |
| 66 | Customizable tooltips | * Add measures to tooltips to provide more context of single data point * Can also apply an aggregation against the tooltip measure or a Quick Calc |  | May-2016 |
| 67 | Conditional formatting in tables | * Values bucket, dropdown of given measure * Can use values of table or specific number (hard coded #, not parameter or formula)   **Note:** Only available for Tables, not matrices as of May 2016 update |  | May-2016 |
| 68 | Publish to Pyramid Server | File – Publish - Pyramid |  | May-2016 |
| 69 | Scrolling loads more data in charts | More data is loaded to chart as you need it (via scrolling)  Happens automatically if more data than be formatted nicely on chart  Charts supported:   * Line, Bar, Column, Area   \*This works with categorical X axis (not continuous) |  | May-2016 |
| 70 | Keyboard nudging for visuals | Use arrow keys to move visual around the canvas  Use SHIFT + arrow to move in larger increments |  | May-2016 |
| 71 | Quick Calcs - % of grand total | * Dropdown of metric in values bucket * Show values % of grand total (only option)   + Don’t have % of parent, row, column * Can have same metric multiple times   \*area of focus in future |  | May-2016 |
| 72 | New Visual – Shape Map (preview) | * Applies different colors on regions of map based on values of metric   + Doesn’t require geographical data categories * Will be able to use with custom visuals in future month * Currently ship several standard * Note: Must enable the visual in Options of PBIX * Can apply a Legend attribute in addition to the Location attribute |  | June-2016 |
| 73 | Searchable Slicers | * Click ellipsis in top right of slicer * Type in value name, list will narrow down results and click * Similar to search in Excel field list – helpful with many distinct values in slicer |  | June-2016 |
| 74 | Configurable line chart labels | * Can show minimal labels (highs and lows only?) or many data lables |  | June-2016 |
| 75 | New Sign-in entry points | * makes it easier to sign in * top right corner   + can switch account   + configure your account settings |  | June-2016 |
| 76 | Predefined table styles | * tables only, not matrices * can still apply other formatting features |  | July-2016 |
| 77 | ShapeMap can use custom maps | * can now use custom maps such as floor plans or seating charts * Add Map; JSON file * Can see keys used by map for saturation * <https://powerbi.microsoft.com/en-us/documentation/powerbi-desktop-shape-map/> |  | July-2016 |
| 78 | Drill on line chart | * A hierarchy on X axis of line chart supports drilling |  | Aug-2016 |
| 79 | Continuous axis for Date axis | * See the continuous dates despite drilling through through date levels |  | Aug-2016 |
| 80 | GA for Inline Hierarchies | * Currently not an option to turn off * Active when drill down is not enabled (Drill All)   + Double arrow, not single arrow |  | Aug-2016 |
| 81 | Predefined Matrix styles | * Previously only had table styles * Available as Matrix style dropdown in formatting pane for matrix * Can apply additional custom formatting on top of pre-formatted |  | Aug-2016 |
| 82 | Reorder fields in charts and tooltips | * The bars in the visual now respect the order of the fields added in the field well | Applies to both measures and tooltips | Aug-2016 |
| 83 | Color formatting for KPI visual | * Previously only red, yellow, and green. Can now define which colors to use |  | Aug-2016 |
| 84 | Analytics Pane | * Will be home for all analytics features – will appear whenever you have a visual selected |  | Aug-2016 |
| 85 | Dynamic Reference Lines | * Can now have reference lines based on min, max, average, median, and percentile * Trend line moved over * Can create reference lines based on multiple measures but the measure must be on the given visual * Previously only constant line supported |  | Aug-2016 |
| 86 | ArcGIS Maps for Power BI (Preview) | Turn on Preview Feature:   * File * Options and Settings * Options * Preview Features * Check ArcGIS   Provide location attribute and metrics for size  Click In-Focus Edit Mode to view in full screen and apply more formatting such as background, symbol style, and the reference layers to cross-reference against standard datasets (e.g. income by county) |  | Sep-2016 |
| 87 | Mobile Report Layout (Preview) | * Enable in preview settings * From report page click ‘View’ tab click Change Layout |  | Sep-2016 |
| 88 | Updated Drill Behavior | * Option to drill to next level in hierarchy (double arrow on left) or to Expand all down one level in hierarchy   + Expand all maintains parent member lineage per second image |  | Sep-2016 |
| 89 | Forecast Feature Preview | * Enable preview feature * Create base line chart * Go Analytics Pane – Forecast * Configure forecast * Tooltips of upper and lower bound included in forecast line |  | Sep-2016 |
| 90 | Edit R script in external IDE | * With R visual selected, click Edit script in external R IDE from the R script editor window * Can configure with R IDE to use in Options – R Scripting |  | Sept-2016 |
| 91 | Date Slicer | * Have a calendar date picker UI when selecting either start and end dates   + Can also enter dates manually * Can use options in dropdown as well per image   + List is the list of date values in the column |  | Oct-2016 |
| 92 | Report Gridlines | * Snap to Grid (Preview)   + From View tab, choose to see gridlines and whether to snap objects or use free form |  | Oct-2016 |
| 93 | Data label improvements | * Can now control whether data labels are horizontal or vertical and there positioning for the chart |  | Oct-2016 |
| 94 | Map Formatting Options | * Use standard map (not filled map) * Bubbles option now available in formatting pane * Can also control the auto zoom feature of the map |  | Oct-2016 |
| 95 | Improved Date Axis Range Formatting | * With a date/time data type in the axis you can now select a start and end date in the formatting pane   + Can even specify the time portion of the datetime values for the filter |  | Oct-2016 |
| 96 | Grouping |  | Can create groups by selecting multiple members (via ctrl+) and right click or via Data / Drill in toolbar  Group can then be used in other reports  Can de-select include ‘other’ group and all items will be color coded as their own group  Can also create new groups via the field list: | Oct-2016 |
| 97 | Binning | * Analytics Pane   + For numeric column exposed, can group it into bins. (e.g. sales amounts into different bins)   + Could be good for prices, quantities, etcs |  | Oct-2016 |
| 98 | Top N Filter | * Analytics Pane   + Only show values that are in the top or bottom value of a measure   + Just change the filter type of the attribute on the chart to Top N and can choose what to base the Top filter on (measure doesn’t have to be on chart)   + Much easier than creating RankX functions |  | Oct-2016 |
| 99 | Include / Exclude Data Points | * Analytics Pane   + Previously, had to select specific values or exclude item (tedious)   + Right click on item and click to exclude or include   + Can also multi-select items and include or exclude that set of ites |  | Oct-2016 |
| 100 | R Powered Custom Visuals |  |  | Oct-2016 |
| 101 | Dropdown Slicer | * Built into the standard slicer. Can use the list (standard) or dropdown option |  | Nov-2016 |
| 102 | Hierarchical Axis | * When you turn the concatenate label off, you can see the parent grouping of each child |  | Nov-2016 |
| 103 | Column Formatting for Tables and Matrixes |  |  | Nov-2016 |
| 104 | Table and matrix conditional formatting | * Now extended to support matrix visualizations |  | Nov-2016 |
| 105 | Axis label and title color control | * Any chart that has axis can be controlled * Can control title and axis separately |  | Nov-2016 |
| 106 | Phone reports scrolling | * In mobile report view, can scroll to load more visuals into a mobile report view |  | Nov-2016 |
| 107 | Clustering | * Preview Release   + Help find groups of data points in your data * Can use the clusters generated as other visuals such as a slicer in image below | Can click the ellipsis in the visual to access ‘automatically find clusters’ | Nov-2016 |
| 108 | Forecasting in PBI Service | * Previously only available in desktop. Now available in PBI Service. | Same analytics pane in service, can add forecast to line chart | Nov-2016 |
| 109 | Groups on Ribbon | * A more intuitive option entry point than right-clicking |  | Nov-2016 |
| 110 | Table Header Word Wrap | * Option available under formatting pane, Column Headers |  | Jan-2017 |
| 111 | Table & Matrix Cond Formatting Enhancement | * Support for blank formatting in tables and matrix visuals * Just click dropdown of values for conditional formatting and choose to highlight blank values or not format them |  | Jan-2017 |
| 112 | New Aggregations for String and DateTime columns | * Can choose Earliest and Latest for a date data type * Can choose first and last for text/string |  | Jan-2017 |
| 113 | Phone Reports | * Now Generally Available |  | Jan-2017 |
| 114 | Word Wrap on Matrix Row Headers |  |  | Feb-2017 |
| 115 | X and Y axis font size control | * Supported for any axis on any chart type |  | Feb-2017 |
| 116 | Cartesian chart minimum category width | * A way of forcing the data labels to show on the visual by providing enough space for each item |  | Feb-2017 |
| 117 | Line chart thickness and join type control | * From formatting pane, access the Shapes card * Join type is for when the different lines intersect |  | Feb-2017 |
| 118 | New Quick Calcs:  % of Row Total  % of Column Total | * Available in matrix only, not table yet * Click the dropdown in the Values bucket per 2nd image image |  | Feb-2017 |
| 119 | Report Theming Preview | * Can create and import a JSON file that defines what colors to use in the report * Report themes only apply to charts that have the default theme applied to them – the themes do not currently override visuals in which a color has been specified (standard themes or custom) |  | Mar-2017 |
| 120 | New Matrix Visual Preview | * Performance Improvements * Drill down experience similar to charts with multiple * Cross Highlight from individual cell or any header to filter other visuals on report page * Control the indenting of the child levels of the hierarchy   + Can turn off stepped layout to show child attribute as separate column * Any of the headers or individual cells can be selected to cross highlight the other visuals on the report | Can have collapsed or expanded/detailed view of matrix hierarchy    Can use the right-click context | Mar-2017 |
| 121 | Textbox Font Color | * Same color formatting options available to visuals now available to text boxes |  | Mar-2017 |
| 122 | Numeric Range Slicer Preview | * With a column that’s a numeric data type. (column only currently) |  | Mar-2017 |
| 123 | Percent of Total Data Labels for Pie and Donut Charts | * More label options including combinations of category, data value, and % of total |  | Mar-2017 |
| 124 | Cross-Highlight using multiple series | * Can make selections on multiple columns (ctrl+click) within a visual and to crossfilter other visuals | Selection on US, H (7M) and Australia, M (1M) crossfilters other visuals | Mar-2017 |
| 125 | Clustering now GA | * “Automatically find clusters” option available in ellipsis of tables and scatter charts * Creates a field in the field list that can be used and managed |  | Mar-2017 |
| 124 | Rename axis titles | * Previously the axis title would match the name of the field used and couldn’t be modified * Available for X and Y axix |  | Apr-2017 |
| 125 | New Matrix Enhancements | * Column Sorting * Column Resizing * Word Wrapping | Click on headers to sort  Hover over edges of header to change size  Can word wrap on column headers, row headers, and values | Apr-2017 |
| 126 | Quick Measures | * Generate new DAX measures via UI * Show Value As is same as previous Quick Calcs (% of Total) * Quick Measures creates | * 19 calculations, more will be added * New measures added to the model, not limited to the given visual | Apr-2017 |
| 127 | New Table Visual (Preview) | * Able to use many of the new matrix features in a table now | * Wordwrapping for both column headers and values * Cross Highlight – can select a value from the Table to filter other visuals | May-2017 |
| 128 | More URL Support in Table and Matrix | * Preview and original versions * Essentially any URL, beyond the HTTP and HTTPs URLs supported previously | * Includes mailto links * URL Icons available in Formatting option * Make sure Data Category for column is set to Web URL | May-2017 |
| 129 | Combo Chart data label enhancements | * Orientation for bar data labels (vertical or horizontal) * Position (inside, outside) | * Can also control data label density   \*All features are similar to line and column charts | May-2017 |
| 130 | Relative Date Slicer | * Relative to:   + Last   + Next   + This * X (Interval Value)   + Days   + Weeks   + Weeks (Calendar)   + Months   + Months (Calendar)   + Year   + Years (Calendar)   \*The (Calendar) versions are fully completed calendar periods only   * ‘Include Today’ option available in formatting (Date Range Card) |  | May-2017 |
| 131 | Mailto links in Textbox | * Highlight text in the text box * Select URL icon of text box formatting * Provide Mailto link | * mailto://JimJenkins@AdWorks.com | May-2017 |
| 132 | Report Level Measures for SSAS Tabular and PBI Service Connect Models | * Measures will only exist within report but will work just like other measures * All DAX functions and Intellisense supported | * Same UI as authoring measurs with local PBIX   + Modeling tab   + New Measure | May-2017 |
| 133 | New Quick Measures: Total for Category and Rolling Average | * Total for Category:   + Filters Applied and Filters Not Applied versions   + % of Parent Calc * Rolling Average (Under Time Intelligence) |  | May-2017 |
| 134 | Bins by count | * Previously, author provided the size for each bin * With count, you can specify the # of bins you want | By default, # of Bins provides suggestion for # of bins and their size but can override with specified # of bins | May-2017 |
| 135 | Data bars for new table and matrix preview | * Another form of conditional formatting. * Not limited to background colors now – fill the cell with a bar * Can set min and max value | Click dropdown of column in Values field well  Conditional formatting card also now available in the Formatting pane for the visual    Have option to Show the data bar only | June-2017 |
| 136 | Markers on line, area, and combo charts | * Currently Markers is only supported on categorical axis. Will be added to continuous. | In formatting pane of visual, use the Shapes card to modify the markers  Can modify ‘Show Marker’ property to On.  Can use the ‘Customize Series’ option to modify the markers per series on the chart  For example, set one line to use a circle and a different line as a triangle | June-2017 |
| 137 | Visuals font family setting | * Available to the majority of visuals available in Power BI * Same font options that have been available for text boxes * Example: apply a font for all headers in a report and a different font for all values in a report * Should be available in all visuals over the next couple of releases |  | June-2017 |
| 138 | Horizontal Image Slicer | * When a column with an image is used as a slicer can now set the orientation to horizontal in formatting | Examples: Images for different countries, images for different product categories | June-2017 |
| 139 | Combo chart formatting updates | * Force zeros to align between the two axes * Shade area of the line   + When turned on will convert the line to an area chart | Primary and secondary Y axis aligned at 0 | June-2017 |
| 140 | Bing maps improvements | * Instead of Road background, you can use Aerial background for map * Aerial goes into deep detail * Now, if you add a hierarchy to your map (country, state, city etc), the map will reflect both the country and the state | \*remember to set the Data Category for geographical columns to the corresponding types    All Power BI maps will be updating to Bing’s new API (v8 API) later this month (June 2017). Maps will perform slightly better, look slightly better.  Will also see a Gray and a Dark theme map pop up as well with new Bing API at end month | June-2017 |
| 141 | High density line sampling | * Turned on by default – shows min and max points of each small bin when you have many points on a line |  | June-2017 |
| 142 | New Table & Matrix visuals now GA | * Now the only versions of those visuals * Top features:   + Cross highlighting   + Drill down through hierarchy levels   + Granular formatting options and conditional formatting | * Visuals created with the old versions of table and matrix can be updated optionally by selecting the visual and then clicking the table or visual matrix icon again * As of this release, can also choose between drill on rows or columns * New default matrix has banded rows, a stepped layout, and some color formatting from the theme | July-2017 |
| 143 | Rename fields in a visual | * Alias is specific to a given visual * Common use cases:   + Measure name is too long for visual   + Live connections to datasets | * + Double click the field in the Field Wells to change the name. (Field name in Fields list will remain the same) | July-2017 |
| 144 | Custom visuals store built into PBI Desktop | * Have a from File and From Store buttons on Home tab of Report view * Cannot currently import a sample PBIX file of the custom visual – still need to go to the store for that | * From File opens explorer to open .pbiviz files * Ellipsis in Visualizations pane changed | July-2017 |
| 145 | Relative date filters | * Very similar options to date slicer * Available for visual, page, and report level filter scopes |  | July-2017 |
| 146 | Responsive visualizations (preview) | * Visual updates to revised size to expose most relevant information * Icon available for mobile access – selecting icon on phone will pop visual out to focus mode |  | July-2017 |
| 147 | Waterfall visual breakdown | * Breakdown field well in Waterfall chart * Computes the value for a given dimension member for both beginning and ending point of the category (e.g. two years or quarters) , the difference (change), and the % change * Still respects cross filtering * Can adjust the ‘other’ bucket   + Breakdown option in formatting |  | July-2017 |
| 148 | Values on Rows for Matrix | * Values card of Formatting pane for Matrix visual   + Show on Rows | Can also show metrics on rows only (no attribute) | Aug-2017 |
| 149 | Color Scale Conditional Formatting | * Available for both Table and Matrix Visuals   Dropdown of measure in Values field well.  Can use both font color and background color together – set to the same colors for heatmap |  | Aug-2017 |
| 150 | Custom Subtotal Settings Per Level of Matrix | * Can now control row and column subtotals per level of the hierarchies on the matrix visual (in addition to turning on or off all row and column subtotals) * Can also control whether subtotals appear on bottom or top |  | Aug-2017 |
| 151 | Line Styles and Legend Options | * Can use line styles (Solid, Dashed, Dotted) for all lines or customize styles for individual lines on the chart   \*example: set goal line to dashed but set actual line to solid  With categorical axis, can format markers.  Can format style of legend to markers only, line only, or both |  | Aug-2017 |
| 152 | Scatter Chart Performance Improvements | * Should now see up to 30% improvement of load time for scatter chart visual | Performance improvement will depend on volume of points plotted – charts with more points will improve more | Aug-2017 |
| 153 | New Custom Visuals | * Dot Plot by MAQ Software * Power KPI * Funnel plot * Beyondsoft Calendar | Dot Plot is like a mix between scatter and column – three dimensions and a measure with option for bubble size as well for additional measure.  Many formatting options for Dot Plots as well.  Power KPI is a combination of a line chart and KPI. Used internally by MSFT, highly customizable  Funnel Plot is an R visual with dots for exceptions  Beyondsoft is like a heatmap for a calendar | Aug-2017 |
| 154 | Drillthrough to another report page | * Create a report page for a specific dimension such as product * Add a column to the new Drilltrhough Filters bucket   + This filter is limited to a specific value of the column * Also receive a ‘Back button’ that can be formatted and used * Additionally, you can use any image or shape as a back button for drill through pages   + A back button card is available in Format shape |  | Sep-2017 |
| 155 | Ribbon Chart | * Like a stacked column but with each column being sorted by the value such that larger items are on top * Can format the Ribbons chart as well with borders and transparency | Can see when a value overtakes another value based on the two ribbons | Sep-2017 |
| 156 | Explain the Increase (or Decrease) Preview | * Quick Insights now built into Power BI Desktop * Creates multiple possible insights and visual options for adding to the report page * Can be used to both create or improve reports as well as consuming reports |  | Sep-2017 |
| 157 | Report Theming Preview Update | * Chart Style Controls * Allow you to fully customize the default settings for individual charts and global or report scoped formatting settings. * Sample is available on the blog and a few of the themes have been updated * Documentation will be made available on the JSON | Global or report scoped report theme settings | Sep-2017 |
| 158 | Accessibility Improvements | * Accessible See data * Keyboard shortcut helper dialog |  | Sep - 2017 |
| 159 | High density scatter chart sampling | * Points that would be covered by a layer are dropped such that outliers are shown |  | Sep -2017 |
| 160 | Gridline style control | * Can now fully format gridlines (or turn off):   + Color, Stroke, and Line Style |  | Sep -2017 |
| 161 | New Community Visuals | * Calendar by Tallan * Enlighten Aquarium * Visio Preview * Impact Bubble Chart | See blog post on Visio Visual: <https://powerbi.microsoft.com/en-us/blog/visio-custom-visual-is-now-in-public-preview-and-available-in-the-store/>  Can add more measures to give bubbles more context (left bar and right bar)  Has a play axis as well | Sep -2017 |
| 162 | Bookmarking Preview | * Save certain states of a report (e.g. filter contexts) * String them together to tell a story * Custom navigation   Filters from filter pane and slicer values saved in bookmarks  Focus Mode setting also saved  See data can be a bookmark too  Sort order is also saved  Drill through is saved | View – Bookmarks Pane  Can just click the name of the bookmark to view that given bookmark  Can re-order the bookmarks by dragging and dropping  Can update a bookmark to reflect a revised filter state via the bookmark ellipsis      The View option allows you to navigate through the bookmarks  Kind of like storytelling, | Oct-2017 |
| 163 | Selection Pane and visual display controls | * Like in PowerPoint, hide certain elements within bookmarks | View – Selection Pane  Can click the eye to hide or show the object  That state can be bookmarked as well | Oct-2017 |
| 164 | Bookmark links for shapes and images | * A custom navigation dialog | Select which bookmark you want tied to the image  (ctrl + click in edit mode) | Oct-2017 |
| 165 | Spotlight | * Call out a specific visual either in a bookmark or not |  | Oct-2017 |
| 167 | Scatter and Bubble Markers | * Change the shape of the marker (don’t have to rely only on color) * Accessibility advantage | Shapes card – Marker Shape  Can customize series to apply diferent markes per category | Oct-2017 |
| 168 | Increased # of data points shown in scatter charts | * Can increase from 3,500 to 10,000 |  | Oct-2017 |
| 169 | Rule-based conditional formatting for table and matrix | * Applicable to background color and font color * Rules are applied from top to bottom.   + If a rule meets two conditions, the bottom condition wins |  | Nov-2017 |
| 170 | Cell alignment for table and matrix | * Left, right, center alignment for row and column headers * Can also specify alignment for one specific field | Field formatting card – Alignment | Nov-2017 |
| 171 | Control visual order through selection pane | * Change which overlapping objects show on top of the canvas * Objects higher in the list show in front of objects lower in the list   + Can drag and drop |  | Nov-2017 |
| 172 | Lock objects on your report | * On View tab * Turns off resize and move * Setting isn’t saved with the report   Often useful for testing or interacting with a report rather than designing it |  | Nov-2017 |
| 173 | Esri Plus Subscription | * If purchased, enables to features and scale of ArcGIS Maps |  | Nov-2017 |
| 174 | Report options for slow data sources | * Specific to DirectQuery * Query Reduction option in Current File setting * Make multiple selections and then click ‘apply’ |  | Nov-2017 |
| 175 | Filtering performance improvements | * Performance for certain scenarios, such as when using strings * Removed the 500 value limit on how many values can be matched when filters for all |  | Nov-2017 |
| 176 | Recently released custom visuals | * Image Timeline * Social network graph * Venn diagram by MAQ Software * HTML viewer |  | Nov-2017 |
| 177 | Q & A for report creation | * Q & A is now built into reports * Ask a Question icon in PBI Desktop on Home tab | Double-click on report page also triggers the Q &A visual in addition to the icon | Dec-2017 |
| 178 | Cross-highlighting for bookmarks | * Previously, cross-highlighting wasn’t persisted in bookmark | The full state of the report page should now be saved by the bookmark. | Dec-2017 |
| 179 | Bookmark flexibility | * Can now control what is saved in the bookmark * All groups are saved by default * Can remove the Data group to allow the current filter context to impact the displayed visuals of the bookmark * Can also set the bookmark to only apply to the objects that were selected when the bookmark was created   + Thus, a bookmark can only apply to part of a report page |  | Dec-2017 |
| 180 | Field properties pane and field descriptions | * Can apply descriptions to fields via View tab   + Measures and columns   + Descriptions displayed in the fields list |  | Dec-2017 |
| 181 | Scatter visual from x and y axis groupings | * Easier to create a scatter visual * Can apply do not summarize to numeric columns in X and Y axis | Plots the pairs of X, Y values  Similar to creating scatter chart in Excel. | Dec-2017 |
| 182 | High density sampling for maps | * Previously applied to scatter and line chart. * Exclusive to maps with points based on latitude and longitude (not addresses) | Ensures that outlier data points are not excluded from sample. | Dec-2017 |
| 183 | Responsive slicers | * Update to responsive visuals. * Support for horizontal slicers and date and range slicers |  | Dec-2017 |
| 184 | Drill filters other visuals | * Enabled by default for new reports and visuals * When you drill into a specific visual, other visuals update to reflect the value drilled on (e.g. ‘bikes’) |  | Dec-2017 |
| 185 | New custom visuals | * Card Browser * Table Heatmap * Data Image by CloudScope * Power KPI Matrix * Text Filter * ChartAccent – Line Chart * ChartAccent – Bar Chart | Card browser: front (with pic) and back with detail  Table heatmap: applies conditional formatting, includes a legend  Data Image: Image URL column applied to visual, updated to reflect filters  Power KPI Matrix: Create scorecards easily  Groups of columns with associated current value, KPI indicator, and sparkline  Many formatting options  Text Filter: applies a contains function to all visuals.  CartAccent: many annotation and formatting options. | Dec-2017 |
| 186 | Show and hide pages | * Right-click on the page to hide | (e.g. scratch pad page or only seeing the page via certain behavior such as a drillthrough page or bookmark)  Hidden pages with gray font; not visible in the service unless accessed via drillthrough or other link | Jan-2018 |
| 187 | Control data label background color for Cartesian and Maps Visuals | * Data labels card   + Show background   + Background color   + Transparency * Same formatting available for maps |  | Jan-2018 |
| 188 | Increase area used for axis labels in charts | * Maximum size property in axis of charts | Useful to avoid truncation of text labels | Jan-2018 |
| 189 | Bar/column padding control | * Inner padding property * Padding between the bars | Underneath max size property for axis  Can create similar look of histrogram with 0% padding between bars (if binning is used) | Jan-2018 |
| 190 | Show dates as a hierarchy (preview) | * See the hierarchy being automatically created for date fields * Makes it easier to work with automatically created hierarchies |  | Jan-2018 |
| 191 | Add an anchor date for relative date slicer | * Relative date slicer defaults to dates relative to today * Can now specify a specific anchor date * E.g. last X months relative to anchor date |  | Jan-2018 |
| 192 | New Custom Visuals | * PowerApps Custom Visual * TreeViz * Funnel with Source by Maq Software * Box and Whisker chart by Maq Software * Agility Planning Matrix Light * Image Grid * Gantt Chart by MAQ Software | See PowerApps custom visual video from Charles Sterling  Displaying and navigating through a hierarchy  Box and Whisker Chart…high and low points, mid, tooltips dual axis, quartiles  Agility Planning Matrix includes which filters have been applied and allows to expand and collapse individual rows  Gantt Chart for managing and analyzing projects, including KPIs | Jan-2018 |
| 193 | Multi-select data points across multiple charts | * Cross-highlight based on data points in multiple charts * Enabled by default | Ctrl+Click across chart  Example: Select Product A from bar chart and Promotion XYZ on column chart  Works with bookmarking too | Feb-2018 |
| 194 | Sync slicers across multiple pages of your report | * Report level slicers | Sync slicers pane  Visibility and which pages it filters to  Can check the box for different report pages such that it applies to all or some pages..  One option enabled:  Home page with filter selections that apply to all the report pages | Feb-2018 |
| 195 | Numeric range slicer improvement | * Whole number snapping (Preview) * Doesn’t show decimals now when you have a whole number column |  | Feb-2018 |
| 196 | Faster geocoding for Bing maps (web preview) | * Much faster geocoding * Sometimes 6X improvement, particularly with many locations * Only in the web service for now (not desktop) |  | Feb-2018 |
| 197 | Overflow data labels for bar and column charts | * Have an overflow option in the data label formatting card * Can use with data label background |  | Feb-2018 |
| 198 | Search the formatting and analytics pane | * Search box is at top * Per example on the right, can search for a term and see only the cards and options related to the term * The pane gets filtered down to either the card name or the options within the card as well |  | Feb-2018 |
| 199 | Custom Visuals | * Organizational custom visuals * Network visualization and Filter * Slope Chart by Maq Software * **Filter by List** * as Timeline * as T-Accounts | Org custom visuals: admin can mark certain custom visuals as approved  Tab in Office Store will show pre-approved custom visuals    Network Viz and Filter by ZoomCharts (free one in AppSource)  Paid version offers much more formatting controls  Slope chart (R visual): two points in time.  Can click and drag  Filter by list: can paste in a list and hit one button to filter down  As Timeline: a schedule in a simple visual..  As T-Accounts: | Feb-2018 |
| 200 | Report Page Tooltips (Preview) | * customize what you’re seeing in the tooltip * Create a tooltip page type (Page Size Card – Type) * Can use a custom size too * View – Actual Size * Page Information – Tooltip | Can link a tooltip page in two ways:   1. Auto:    1. Drag a field to the Tooltips field well on the tooltips page    2. Whenever the field is used in a report visual, the tooltip page will render 2. Manual    1. Tooltip card added in Formatting pane    2. Change from Auto to a specific tooltip page 3. Can also turn tooltip report page off | Mar-2018 |
| 201 | Bookmarking is now GA | * Almost all custom visuals supported in bookmarks too |  | Mar-2018 |
| 202 | Display Units and Precision Control for Table and Matrix Columns | * Field formatting card   + Display Units   + Value Decimals * Brings table/matrix to part with charts |  | Mar-2018 |
| 203 | Turn off visual header in reading mode for a report | * Can turn off header | File – Options and Settings – Options  Current File - Report Setings  Visual Options – Hide the visual header in reading view  Will always see the bar in Desktop (editing mode) | Mar-2018 |
| 204 | Improved default visual placement | * PBI will place the new visual in a vacant area on the report canvas |  | Mar-2018 |
| 205 | Custom Visuals | * Mapbox * User List by CloudScope * Timeline by CloudScope * KPI Chart by Akvelon * R DataTable * Outliers Detection * Data Insights by MAQ Software * Dumbbell Chart by MAQ Software * Clustering using OPTICS by MAQ Software | Mapbox uses their own APIs. If you have a Mapbox account and your own Maps and Mapbox you can use those in Power BI.  Can add different layers of maps (e.g. clusters and bubbles)  Author of report will need to have a mapbox account  (No consumer of report will need a license, just a creator)  KPI Chart by Akvelon lets you create KPI bands in the background of a combination chart. Can hard code bands or pass in measures to define ranges.  R DataTable allows you search and filter by column, view by pages  Data Insights allows you to view multiple visualizations within a visual and make many changes within the visual quickly | Mar-2018 |
| 206 | Q & A Explorer (Preview) | * For consumers in reports   + Consumer can ask questions in reports   + No edit permissions to add back to report * Works in desktop   + Ctrl+click * Author can predefine questions in report   + Suggested questions | You will tie Q & A to an image, button, or shape  (just like Back and Bookmark options in Action card of PBI service)  In edit mode or PBI Desktop, you can Add a question as a suggested question  Questions will be saved for the given Q & A button  Questions will be contextual to the page  Can also return report pages via Q & A and add parameters as well  For parameters, use page level filters and require single selection.  (can leave it as all (no filter) but require single filter)  Drillthrough filters become parameters as    Filters applied to report page are respected by Q & A question | Apr-2018 |
| 207 | Buttons to trigger actions | * Tie an action to a bookmark or Q & A * More app like * Navigation * Reset: clear all filters * Back button * Q & A * Bookmark * Blank – no text   Formatting:   * Button text * Icon * Fill * Title | Can customize the three states for each button (Default, Hover, Selected) | Apr-2018 |
| 208 | Combo chart line styles | * Dashed or dotted styles for line charts now available for combo charts * Shapes card | Shapes card-  Line styles  Can customize series to apply different style to each line  Can control the legend as well | Apr-2018 |
| 209 | Improved default sort for visuals | * Should reduce the amount of clicking necessary | 1. Check if you specified sort column by 2. Sort your chart chronologically (if date field) 3. Sort charts numerically descending (sales most, sales least last) | Apr-2018 |
| 210 | Numeric slicer now GA | * Works in web and desktop |  | Apr-2018 |
| 211 | Organizational visuals now generally available | * IT can upload custom visuals in admin portal * Visuals will be available in Marketplace   + My Organization tab |  | Apr-2018 |
| 212 | New Custom Visuals | * Overview by CloudScope   + Similar to Instagram * Icon Map by Altius   + Size of icons, connect via lines * Hexbin Scatterplot   + Darker shading for density of points |  | Apr-2018 |
| 213 | High contrast support for reports | * Accessibility feature * Can set High contrast theme in Windows | Settings – Ease of Access – High contrast  Settings will flow to PBI Desktop  In service – View tab – High contrast colors. Can override high constrast theme that was applied by default. | Jun-2018 |
| 214 | Donut radius control | * How thick your donut is   + Small inner radius becomes like a pie   + Large inner radius creates space for Card | Formatting pane – Shapes card – inner radius  Default is 60 | Jun-2018 |
| 215 | Pie and donut detail labels position control |  | Formatting pane - Detail labels card  Default label position is outside  Can set preference  Can set background for data labels on/off and overflow text | Jun-2018 |
| 216 | Format data labels separately for each measure in a combo chart | * Has been supported for column charts and line charts, now available for combo charts | Combonchart  Formatting pane – Data labels card – Customize Series option  Dropdown available for the specific measure you’re formatting | Jun-2018 |
| 217 | Longer phone reports | * Doubling the height of the phone report | View – Phone Report  40 rows now of the grid (20 previously) | Jun-2018 |
| 218 | New Custom Visuals | * Organizational Chart * China Heat Map |  | Jun-2018 |