Power BI Desktop: New Data Connectivity Features

# **Summary**

The purpose of this document is to serve as supporting reference to new data connectivity 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 modeling, transformations, report authoring and other Power BI Desktop and Service features are outside the scope of this document.
* The official Power BI Documentation Update Archive is maintained here: <http://bit.ly/2t6fRUE>

# **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](#Jul2017) | [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) | [Jul-2018](#Jul2018) | [Aug-2018](#Aug2018) |
| [Sep-2018](#Sep2018) | [Oct-2018](#Oct2018) | [Nov-2018](#Nov2018) | [Dec-2018](#Dec2018) | Jan-2019 |
| [Feb-2019](#Feb2019) | [Mar-2019](#Mar2019) | [Apr-2019](#Apr2019) | [May-2019](#May2019) | [Jun-2019](#Jun2019) |
| [Jul-2019](#Jul2019) | [Aug-2019](#Aug2019) | [Sep-2019](#Sep2019) | [Oct-2019](#Oct2019) | [Nov-2019](#Nov2019) |
| [Dec-2019](#Dec2019) | Jan-2020 | [Feb-2020](#Feb2020) | [Mar-2020](#Mar2020) | [Apr-2020](#Apr2020) |
| [May-2020](#May2020) | [Jun-2020](#Jun2020) | Jul-2020 | [Aug-2020](#Aug2020) | [Sep-2020](#Sept2020) |
| [Oct-2020](#Oct2020) | [Nov-2020](#Nov2020) | [Dec-2020](#Dec2020) | Jan-2021 | [Feb-2021](#Feb2021) |

# **Feature Updates**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Feature/Improvement** | **Detail** | **Image** | **Update Month** |
| 1 | On-Prem Spark distributions | * Get Data – Other   + Connect * URL of Spark Server and Protocal (Standard or HTTP) |  | Sep-2015 |
| 2 | SharePoint lists from non-English sites | * Improvement of existing SharePoint list connector * Users can get data from any SP list as long as SharePoint 2013 or newer regardless of site language * SP 2010 and earlier sites still limited to English only |  | Sep-2015 |
| 3 | MS Exchange connector | * Now allowing connections to multiple mailboxes * Could specify email address and credentials; could combine data from multiple Exchange inboxes |  | Sep-2015 |
| 4 | Excel Connector | * Automatic Column Type detections when importing.XLS files * Previously had column type detection for XLSX (Excel 07+) only |  | Sep-2015 |
| 5 | Related Tables option when connecting to database sources | * Similar feature available in Power Pivot for Excel * Tables with relationships defined in SSAS or via PK/FK in relational SQL Server * Feature supported in:   + SQL Server   + SQL Azure   + Oracle   + DB2   + MySQL   + Postrgres   + Teradata |  | Sep-2015 |
| 6 | Enhanced Active Directory connector credentials | * Allows alternate Windows credentials * Can impersonate now when writing queries against AD |  | Sep-2015 |
| 7 | Improved function invocation experience when using functions against a source | * Will be prompted for all parameters needed for query * Previously had to go back and specify function parameters |  | Sep-2015 |
| 8 | Import Excel Workbook Contents not supports external connections to SSAS Tabular models | * Converted to AS live connections in PBI desktop |  | Sep-2015 |
| 9 | New Delete All option in Data Source Settings dialog | * File – Options and Settings * Data Source Settings |  | Sep-2015 |
| 10 | Option to Enable Relationship Import during Refresh Operations | * PBI Desktop automatically creates relationships in local data model * File – Options * Current File – Data Load * By default this is turned off now so changes to underlying data source do not impact local data model |  | Sep-2015 |
| 11 | Azure DocumentDB connector | * NoSQL DocumentDB service designed for JSON and JavaScript * Made for Apps that run in the cloud * Provide URL * Optional – Database * Optional – Collection * Optional – SQL Statement * PBI will find all tables and expose them to Query Editor, Model and Reporting |  | Oct-2015 |
| 12 | Mailchimp connector | * New connector * Has been available as content pack in PBI Service * Can now benefit from data preparation features in PBI Desktop * Other - MailChimp |  | Oct-2015 |
| 13 | DirectQuery for SQL Server and Azure SQL DB (Preview) | * Users can pick between loading data to PBI Desktop or use direct query to query remote sources * Will save time waiting for data, save memory/on your local machine * Load or Edit after selecting tables * Selecting Direct Query shows the ‘Create Connections’ – much faster as you’re not loading/moving any data * Visualization commands will be converted into SQL against data source * In DQ mode there’s no Data View (no cache) * No New Measure or Calc columns as of Oct Update * Can still use some transforms in QE such as filter rows or remove columns or add derived columns (all in DQ) |  | Oct-2015 |
| 14 | SSAS Multidimensional Support | * File – Options and settings – Options to enable * Direct Connection: Connected * Must have SQL Server 2012 SP1 CU4 or above * Will be adding support later for hierarchies, display folders, etc |  | Nov-2015 |
| 15 | SAP Hana | * Very important enterprise BI source * Analytic views and calculation views * Need to install SAP Hana ODBC driver on client from SAP marketplace * Supports Direct Query and Import Mode * After clicking load you get the ‘Import or Direct Query’ Connection Settings dialog box |  | Nov-2015 |
| 16 | R Script | * Get Data – Other * Specify the R script to execute against R server * Produces one or multiple tables   + Could perform additional transformations before loading if necessary |  | Nov-2015 |
| 17 | Direct Query for:  SQL Server  Azure SQL Database  Azure SQL Data Warehouse | * Not a preview feature now, Generally Available * Same experience for Azure SQL Data Warehouse * Improving publish experience using Direct Query   + Improvements to PBI Gateway allowing users of PBI Service to use DQ |  | Nov-2015 |
| 18 | Azure Data Lake | * Provide URL for Azure Data Lake store * Preview all tables, navigate, explore, transform |  | Nov-2015 |
| 19 | Marketo | * Have had content pack against Marketo before * Now use PBI desktop to create reports against source * In Other Categories o |  | Nov-2015 |
| 20 | SSAS Multidimensional Hierarchy Support | * Enhancing preview feature to support hierarchies   + Will need to have Preview Feature turned on for explore live * Just click Geography hierarchy and drill up/down buttons enabled * Full support for all drill down capabilities (drill all or drill down mode (specific leaf) |  | Dec-2015 |
| 21 | Stripe Connector | * Easily manage online payments for businesses * Connect to Stripe Account * Get Data – Other - Stripe |  | Dec-2015 |
| 22 | SmartSheet Connector | * Get Data – Other – Smartsheet * Smartsheet accounts * Workspaces, worksheets, reports, collaborators |  | Dec-2015 |
| 23 | ‘Enter Data’ | * Paste or enter data to create a table manually * Previously had to create table in Excel and import from Excel or use M or DAX * Sometimes need a very small static table to support report or model * Specify headers and name of table * Loads table into data model * Can also just Ctrl+C from external Excel workbook and Ctrl+V   + Load or Edit to perform additional transforms   + Modify source table and transforms just like any other data source table |  | Dec-2015 |
| 24 | Direct Query Improvements | * All data types of T-SQL and SAP Hana supported * Performance Improvements for Azure SQL and SQL Server |  | Dec-2015 |
| 25 | ODBC Connector | * User and System DSNs   + Select from list of DSNs   + Use any DSN from your machine   + Specify   + Could use ‘none’ option to fully specify connection string * Previously had to fully specify connection string |  | Dec-2015 |
| 26 | CSV Connector | * Ability to specify Column Delimiter in the Source dialog |  | Dec-2015 |
| 27 | Create measures in Direct Query mode | * Will be enabling other Modeling features in DQ mode over the next few months * Click ellipsis or right-click – New Measure * Some DAX measures are not recognized/enabled by default as they could be expensive on source system * Have option of enabling unrestricted measures in Options |  | Jan-2016 |
| 28 | GA support for SSAS Multidimensional Exploration Mode |  |  | Jan-2016 |
| 29 | Enhanced Hierarchies support | * Was previously all or nothing with hierarchies * Can now specify level(s) of hierarchies (for SSAS Multidim) |  | Jan-2016 |
| 30 | GA for SAP Hana connector | * Fully supported in PBI Desktop |  | Jan-2016 |
| 31 | Append Multiple Tables | * Previously had to append two tables at a time; multiple steps required for unioning many tables * Can now specify Three or More Tables to append all * Can also control order and append same table multiple times * Disable load for intermediate tables, only load final output |  | Jan-2016 |
| 32 | Refresh Data for Individual Tables (Report & Data Views) | * Previously, clicking Refresh on Home tab from Report view would refresh all tables (could be time consuming) * Just refresh single table |  | Jan-2016 |
| 33 | Option to disable data previews | * Background evaluation can sometimes consume CPU resources * File - Options – Data Load   + Allow data preview * Setting is scoped to the given file |  | Jan-2016 |
| 34 | DirectQuery support for Oracle and Teradata databases | * Preview feature for now for these * Must enable preview in PBI Desktop * Previously DQ sources are GA (SQL Server, SSAS, Azure) |  | Feb-2016 |
| 35 | DirectQuery support for Calculated Columns | * Last month was calc measures, now calc columns * Expect more improvements to DirectQuery soon |  | Feb-2016 |
| 36 | Support for publishing SSAS Live Reports | * Specify which gateway you want to use for the given report to hit the on-prem database * Previously, if you had multiple gateways the report didn’t know which one to use |  | Feb-2016 |
| 37 | JSON File Connector | * Specify the JSON file * Expand option in Query Editor to parse file * Any Rest API or URL that returns JSON file |  | Feb-2016 |
| 38 | SQL Sentry Connector | * Allows you to monitor performance of SQL Server (health, availability, disk, cpu, memory, etc) * Previously available as content pack * Can now build your own reports via PBI desktop |  | Feb-2016 |
| 39 | Support for jagged CSV files |  |  | Feb-2016 |
| 40 | Exchange Connector | * OAuth Support |  | Feb-2016 |
| 41 | SharePoint List Connector | * URL validation |  | Feb-2016 |
| 42 | DB Connectors | * Option to disable navigation columns in Query Previews | Can uncheck the relationships detection (default is checked) and load..much faster to load data without relationships | Feb-2016 |
| 43 | Web Connector | * Fine Grained Scoping of Credentials * Pick any level from hierarchy (not just URL or domain)   To manage privacy levels |  | Feb-2016 |
| 44 | Enter Data | * User Experience improvements   + Automatically detect heads |  | Feb-2016 |
| 45 | SAP HANA | * Single Sign-on with Windows Authentication (PBI Desktop only) |  | Feb-2016 |
| 46 | SAP HANA | * Support for Field Labels   + Will show up in navigator; supported in query |  | Feb-2016 |
| 47 | SAP BW Connector (Preview) | * Settings – Options – Global – Preview Features * SAP Business Warehouse connecotr * Required: SAP BW Client Tools installed on local machine |  | Mar-2016 |
| 48 | R Scripts Connector now Generally Available | * Under Get Data – Other * Required: R installed on local machine to run R scripts * Required: data source supports R |  | Mar-2016 |
| 49 | Command Timeout in the UX | * Under Advanced Options when connecting to database sources |  | Mar-2016 |
| 50 | Privacy Level Setting at Machine Level | * Can now specify the privacy level (public, Org, private) for each data source.   + Privacy sometimes required local transforms (slow) * Currently per file, per user setting – Current File - Privacy * New option: Always combine data according to privacy level settings for each source (whether current file privacy setting is enable disabled) |  | Mar-2016 |
| 51 | Direct Query for Oracle and Teradata now GA | * Preview for DQ to Oracle and TD in February; now has become GA * Support for DQ for Oracle and Teradata now in Enterprise Gateway |  | Mar-2016 |
| 52 | New Connectors | * SharePoint Folder * Webtrends * SparkPost * tyGraph |  | Apr-2016 |
| 53 | New ‘Online Services’ category in Get Data dialog | * Moving online services to separate tab reduces list of sources under Other * Other sources now:   + Web,   + SP List   + HDFS File   + Active Directory   + MS Exchange   + ODBC   + R   + Spark   + Blank Query |  | Apr-2016 |
| 54 | Direct Query vs Import Selection | * Specify DQ or Import mode in data source dialogs |  | Apr-2016 |
| 55 | New data connectors | * IBM Informix * comScore Digital Analytics * Troux * Planview Enterprise | * IBM Informix available via Database category in Get Data * comScore Digital Analytics available via Online Sources category * Troux available via Online Sources category * Planview Available via Online Sources category | May-2016 |
| 56 | Improved DB2 Connector | * Now have the choice to use the Microsoft driver for IBM DB2 which is automatically included in the PBI Desktop installation |  | May-2016 |
| 57 | Data Source Settings Enhancements | * Can now modify the location of a data source for all queries using that data source within a PBIX file.   + Eliminates need to update data source for each query * Now a Current File scope in Data Soruce Settings |  | May-2016 |
| 58 | Improved relational database connectors with Display Schema information | * Available as an Advanced Option in all database connectors |  | May-2016 |
| 59 | ‘Save As’ a Power Bi Template | * File – Save As dialog to create PBIT file   + Stores only the definitions of queries, model, parameters and visualizations not the data |  | May-2016 |
| 60 | Azure Enterprise Data Connector | * Retrieve info about Azure accounts |  | June-2016 |
| 61 | Enhanced SAP BW and HANA connectors | * Multi-Select of values for variables/parameters * Support for Hierarchies in SAP BW |  | June-2016 |
| 62 | Enhanced OData connector | * Imports Open Type columns   + Available in Advanced Options |  | June-2016 |
| 63 | Enhanced MS Access DB Connector | * Select Related Tables button | Same behavior as other database sources.  Will select all tables that have a direct relationship with the table selected. | June-2016 |
| 64 | Amazon Redshift  Preview Feature | * Import and Direct Query supported | If enabled as preview feature, will see option under Get Data – Database | July-2016 |
| 65 | Impala  Preview Feature | * Preview * Connect to Impala cluster * Import only now   + Direct Query supported soon |  | July-2016 |
| 66 | Command Timeout option via the UX for Web connection | * Eliminates the need to customize the M query * Available in Advanced Mode for Web connector |  | July-2016 |
| 67 | CSV/Text – Support for Fixed-Width delimited files | * Specify a list of positions to split by in the Table preview dialog (if fixed width)   + first column |  | July-2016 |
| 68 | SAP BW improvements | * Support for Netweaver driver * Ability to specify a language when connecting to an SAP BW server * Error messages now localized to the PBIX install language | Need to ensure this driver is configured in your machine in order to continue running existing reports, both via PBIX and PBI gateway | July-2016 |
| 69 | Impala DirectQuery Support | * Still in Preview but was import mode only last month |  | Aug-2016 |
| 70 | Snowflake Connector | * Available in preview feature * Snowflake is cloud-native data warehouse |  | Aug-2016 |
| 71 | GA of SAP BW connector | * Now GA, available without any preview switch |  | Aug-2016 |
| 72 | Improved Web connector | * Get Data – Web   + Paste URL * Previously had to select tables from a list * Don’t have to guess or use process of elimination to determine the table you want |  | Aug-2016 |
| 73 | Snowflake Connector DirectQuery Support |  |  | Sep-2016 |
| 74 | ProjectPlace Connector | * Online Services - Projectplace |  | Sep-2016 |
| 75 | Oracle Connector -Navigated Previews | * Significant performance improvement for previewing tables when connecting to Oracle databases. (30% or less of time previously) |  | Sep-2016 |
| 76 | OData Connector – Select Related Tables Option | * When connecting to OData V4 feeds, you can click Select Related Tables in the Navigator |  | Sep-2016 |
| 77 | SA BW and HANA Connector Improvements | * Enhancements to parameter input UX:  1. For single select parameters, can type in values and view member caption in dropdown list 2. For multi-select parameters, can use search box and view member capation |  | Sep-2016 |
| 78 | Web Connector – UX Support for HTTP Request Headers | * Get Data * Web * Advanced |  | Sep-2016 |
| 79 | Microsoft Dynamics 365 for Financials | * Under online services * \*Still in development/beta as of January 2017 release |  | Oct-2016 |
| 80 | OLEDB | * Under ‘Other’ category of ‘Get Data’ sources * Any OLED DB Driver you want to connect to |  | Oct-2016 |
| 81 | Mixpanel | * Under online services * Connect to mobile and web analytics data from Mixpanel accounts |  | Oct-2016 |
| 82 | Spark DirectQuery | * Needs to be only data source in your file/model (Like DQ in SSAS Tabular, can only have one Direct Query source) * Available via Azure option and ‘Other’ option for Spark |  | Nov-2016 |
| 83 | OData Connector Improvement | * Query folding for expand record operations | OData service responsible for expensive operation of expanding records rather than client machine | Nov-2016 |
| 84 | Azure Analysis Services | * Can use the same SSAS option that you would for on premises. * Just use the link/URL for server provided from Azure portal |  | Nov-2016 |
| 85 | Improved Combined Binaries Experience | * Correct file format detected (text, XSLX, JSON) * Select an object for the first file to use in the combine | Three artifacts created now:   1. Example query of required extraction steps 2. Function query that parameterizes file input to query 3. Function query applied to original query with input binaries   Overall process of combining in multiple files should be much easier. |  |
| 86 | Visual Studio Team Services Connector | * Preview Release |  | Jan-2017 |
| 87 | SQL Server Connector Support | * SQL Failover Support   + Add redundancy to data source to increase availability of app |  | Jan-2017 |
| 88 | “Select Related Tables” now supported for  ODBC and OLE DB connectors | * Select a table from the preview * Click Select Related Tables * Tables related to the table selected in Get Data are then selected |  | Feb-2017 |
| 89 | Enhanced Folder connector – support for ‘Combine’ from the preview dialog | * Can now directly load or edit from path rather than via the ‘combine binaries’ step |  | Feb-2017 |
| 90 | Unified text & CSV Connector | * One connector to select following extensions:   .txt, .csv, .prn |  | Feb-2017 |
| 91 | PowerApps Common Data Service Connector | * Only in beta currently |  | Feb-2017 |
| 92 | Azure Analysis Services Connector | * Beta release, still under development. Future changes may cause queries with current connector to be incompatible |  | Mar-2017 |
| 93 | Azure Data Lake Store Connector now GA | * Beta tag removed with GA, specify URL per second image below |  | Mar-2017 |
| 94 | DB2 Connector: Option to Specify Package Collection | * Can only be used with MS driver for IBM DB2 * Packages in DB2 are database objects that contain executable forms of SQL statements. |  | Mar-2017 |
| 95 | Combine Binaries: Ability to Specify Sample File to Use | * Can now select which file from a folder should be used as a sample file. * <https://powerbi.microsoft.com/en-us/documentation/powerbi-desktop-combine-binaries/> |  | Mar-2017 |
| 96 | Connect to datasets in Power BI Service (Preview) | * Will see all workspaces you have access to * Will list models you have edit access to * Live connection to that model in the service * “connected to Power BI dataset” in bottom right * Can deploy a single model to a group workspace and grant everyone edit access so they can create their own reports * As model is updated |  | Apr-2017 |
| 97 | Redshift Connector | * Not a preview feature now, in Beta * Can now publish to PBI Service using Redshift now |  | Apr-2017 |
| 98 | SAP HANA & BW Enhancements to parameter input experience | * Can filter down parameters to only required parameters * Pop up dialog for single and multi-selection |  | Apr-2017 |
| 99 | New Connector: Dynamics 365 for Customer Insights | * Get Data – Online Services   + Currently Beta |  | May-2017 |
| 100 | Combine Files - Reference First File as Example | * Choosing First File avoids scenario where specific example file is moved or deleted |  | May-2017 |
| 101 | Custom Data Connectors Support (Preview) | * Created custom data connector will be reflected in the Get Data dialog * Can be used like all other connectors |  | June-2017 |
| 102 | Power BI service Live Connect to On Premises and Push streaming datasets | * Could previously only connect to published Power BI datasets * Can now connect to On-Premises sources * Can also connect to push streaming datasets in PBI service | Re-use the three PBI datasets across many reports | June-2017 |
| 103 | Impala connector is now generally available | * Beta tag removed |  | June-2017 |
| 104 | Amazon Redshift connector is now generally available | * Beta tag removed |  | June-2017 |
| 105 | SAP BW connector – DirectQuery Support (beta) | * Import connector is not in beta * DirectQuery option now appears. | \*Client components (SAP NetWeaver library) required for this connector  <https://powerbi.microsoft.com/en-us/documentation/powerbi-desktop-sap-bw-connector/>  <https://support.sap.com/en/my-support/software-downloads.html> | June-2017 |
| 106 | IBM Netezza connector (beta) | * IBM Informix is currently in beta as well * IBM DB2 is GA |  | June-2017 |
| 107 | Snowflake connector now generally available |  |  | July-2017 |
| 108 | Live Connect to PBI Service is now Generally Available | * Can now switch datasets via Data Source Settings under Edit Queries   \*example publish validated development report to a production dataset in a production app workspace |  | Aug-2017 |
| 109 | Google BigQuery connector (beta) | * Under database category in Get Data * Import or DirectQuery supported |  | Aug-2017 |
| 110 | Azure Consumption Insights Connector | * Under Online Services |  | Sept-2017 |
| 111 | Improvements to the Dynamics 365 for Financials connector | * Also Under Online Services * Can now authenticate via Azure Active Directory * Can now auto-detect your endpoint for Dynamics 365 whenever you sign in with your credentials |  | Sept-2017 |
| 112 | Vertica connector | * Get Data – Other Tab | Both Import and DirectQuery mode  HP Vertica is columnar compresses, shared nothing MPP system for DW | Oct-2017 |
| 113 | SAP BW connector improvement: additional member properties | * Can import additional member properties via nav dialog   + Download as column |  | Oct-2017 |
| 114 | Impala Connector – Support for Windows Authentication |  |  | Nov-2017 |
| 115 | Adobe Analytics Connector | Online Services section |  | Dec-2017 |
| 116 | HDInsight Interactive Query Connector (beta) | Import or DirectQuery |  | Dec-2017 |
| 117 | Data.World Connector (beta) |  |  | Dec-2017 |
| 118 | SAP BW connector improvements | * Option to connect to message server in addition to application server * Support for Windows Authentication |  | Dec-2017 |
| 119 | IBM Netezza connector | * Now generally available |  | Dec-2017 |
| 120 | Support for Azure AD Auth for Azure SQL DB and Azure SQL DW connectors | * Use your AAD account to authenticate * Support for this in the PBI Service expected in the next few weeks |  | Jan-2018 |
| 121 | Improvements to DirectQuery over SAP HANA (Preview) | * Previously it was being treated as a relational source. Had to be careful with performance * Will now treat it as a multidimensional source like SAP BW | Read the blog and documentation to learn more | Feb-2018 |
| 122 | Visual Studio Team Services Connector |  |  | Mar-2018 |
| 123 | SAP HANA connector enhancements | * DirectQuery multidimensional support is now GA * SSL Certification Validation Support |  | Mar-2018 |
| 124 | SAP BW DirectQuery connector is now GA |  |  | Mar-2018 |
| 125 | Azure Analysis Services connector is now GA |  |  | Mar-2018 |
| 126 | Adobe Analytics connector now GA | Preview and select multiple dimensions and measures within navigator to create single tabular output.  Can also provide input parameters.  Can edit with query editor. |  | Apr-2018 |
| 127 | SAP HANA connector improvement: Port selection |  |  | Apr-2018 |
| 128 | Dynamics 365 Business Central connector  (GA, no beta required) | Previously known as Dynamics 365 for Financials |  | Apr-2018 |
| 129 | SAP BW Connector Improvements | * New driver and improved performance * Improved support for hierarchy variables | * 1. (“massive performance improvements”)   Need SAP .net connector 3.0 (can download from SAP site)  Pick the version that matches your version of PBIX (32 ro 64 bit)  If you use 2.0 connection, PBI will switch from SAP client driver to new driver for SAP BW developed by Microsoft  Able to retrieve several million rows of data  Can switch execution modes  Support for compressed mode  Improved detection of date variables  Will expose date and time dimensions as date and times respectively rather than DAX | Jun-2018 |
| 130 | Spark connector now supports Windows authentication | * Previously only had basic auth |  | Jun-2018 |
| 131 | Odata V4 connector enhancements | * Improved support for complex types * Improved support for custom URLs |  | Jun-2018 |
| 132 | ODBC connector improvements | * Folding support for Top Rows * Ability to filter navigation by DSN catalog | If ODBC source supports TOP operator | Jun-2018 |
| 133 | IBM DB2 DirectQuery (preview) | * Previously only import was supported * DirectQuery now available in Preview as well |  | Jul-2018 |
| 134 | Improvements to Web by Example connector | * Support for importing multiple custom tables * Automatic completion for specifying multiple tables |  | Jul-2018 |
| 135 | SAP HANA – Default values for variables in Variable Input experience | * Connector reads SAP HANA metadata to determine default value |  | Jul-2018 |
| 136 | Spark Connector Generally Available |  |  | Aug-2018 |
| 137 | PDF File connector (Preview) | Need to enable as preview  Will appear under file category in Get Data dialog |  | Sep-2018 |
| 138 | SAP BW connector – support for measure properties | Plan to support this in DirectQuery… |  | Sep-2018 |
| 139 | Web by Example connector is now GA |  |  | Oct-2018 |
| 140 | SAP BW connector implementation v2 (2.0) is now GA |  |  | Oct-2018 |
| 141 | SAP BW Message Server Connector is now GA |  |  | Oct-2018 |
| 142 | Vertica connector is now GA |  |  | Oct-2018 |
| 143 | Dynamics NAV and Dynamics 365 Business Central connectors are now GA |  |  | Oct-2018 |
| 144 | New Dynamics 365 Business Central On-premises connector |  |  | Oct-2018 |
| 145 | Azure DevOps Server connector |  |  | Nov-2018 |
| 146 | PDF Connector support for Start Page and End Page parameters |  |  | Nov-2018 |
| 147 | Improved Azure Consumption Insights conn |  |  | Nov-2018 |
| 148 | AtScale connector (beta) | Import and DirectQuery mode supported  Will be supported in PBI service soon |  | Dec-2018 |
| 149 | Oracle Essbase connector (Beta) | Import and DirectQuery mode supported  Will be supported in PBI service soon |  | Dec-2018 |
| 150 | Microsoft Graph Security | Holistic view of security and risk for enterprise  Comes with sample dashboard and template |  | Feb-2019 |
| 151 | Guidanz’ BI Connector for OBIEE | Staging of data from OBIEE for Power BI |  | Feb-2019 |
| 152 | MarkLogic | NoSQL database |  | Feb-2019 |
| 153 | Kronos Workforce Dimensions | Managing workforce |  | Feb-2019 |
| 154 | SurveyMonkey | Most popular data survey platform. Visualize customer or fcompany surveys in Power BI |  | Feb-2019 |
| 155 | Qubole Presto | Fast, ad hoc queries against petabyte scale data sources |  | Feb-2019 |
| 156 | Quick Base | Quick Bases enables you to build your own custom app |  | Feb-2019 |
| 157 | Sagra Emigo | Emigo supports sales organizations by automating daily sales activities |  | Feb-2019 |
| 158 | PDF connector now supports tables spanning multiple pages |  |  | Mar-2019 |
| 159 | Intelligent Plant’s Industrial App Store |  |  | Mar-2019 |
| 160 | Azure Cost Management connector |  |  | Mar-2019 |
| 161 | Power BI Dataflows connector (now GA) | Now both Dataflows in the service and the connector to them in PBI Desktop is GA. |  | Apr-2019 |
| 162 | Oracle Essbase connector now supports DirectQuery and is GA | Find Essbase in the Database category of connectors |  | Apr-2019 |
| 163 | PDF connector now generally available |  |  | Apr-2019 |
| 164 | Web By Example connector – automatic table inference | The AI algorithm is smarter about finding patterns in HTML and suggesting tables from the web page |  | Apr-2019 |
| 165 | Intersystems IRIS connector | InterSystems IRIS Data Platform – both relational tables and BI cubes defined in the platform |  | Apr-2019 |
| 166 | Indexima connector | Query all big data directrly on the data sources |  | Apr-2019 |
| 167 | Luminis InformationGrid | Low code cloud platform for data-intensive applications. |  | Apr-2019 |
| 168 | Solver BI360 | User-friendly Azure cloud-based data warehouse, budgeted and reporting solution |  | Apr-2019 |
| 169 | Paxata now GA | Paxata is a visually dynamic BI solution for business analysts and SMEs. |  | Apr-2019 |
| 170 | Essbase connector: Support for Native Query (MDX) | Enhancing the Essbase connector to add support for providing Native Queries (MDX) when using import mode | Native queries can be specified as part of the Essbase connector dialog.  Need to specify the Essbase server and application in order to execute native queries | May-2019 |
| 171 | Intune Data Warehouse connector | Allows you to connect to the Intune Data Warehouse to build reports and provide insights | This connector connects to version v1.0 of the Data Warehouse | May-2019 |
| 172 | Tenforce connector | Tenforce is a software solutoin able to provide an integrated overview of a company’s operational reality on a global scale. |  | May-2019 |
| 173 | Roamler connector | Roamler is an online platform where qualified works get paid to perform curated and standardized tasks in Retail, Home Installations, and Healthcare. |  | May-2019 |
| 174 | Connect to shared and certified datasets (preview) | Central to data governance  Single source of true  Single dataset can be used by multiple reports, even across workspaces  Certified datasets, orgs now have a mechansim to distinguish the most valued and trusted datasets | Licensing change:  Free users will no longer be able to connect to datasets that are not in premium | June-2019 |
| 175 | Common Data Service connector is now GA | CDS is a foundational component of MS Power Platform. Securely store and manage data used by business apps. | CDS is also seamlessly integrated with the rest of the Power Platform so you can build PowerApps, Flows, and PBI reports on top of your CDS data.  Available under online services category | June-2019 |
| 176 | Azure Data Explorer connector is now GA | Can now provide set statements as part of the connection creation. |  | June-2019 |
| 177 | Enhancements to the Cosmos DB | * Query folding support.   + Now M expressions are converted into Cosmos DB * General performance and reliability improvements * Resource token support   Resource |  | June-2019 |
| 178 | Entersoft | * Comprehensive business software suite for ERP, CRM, Retail, Mobile, E-Commerce, and BI apps * Pre-packaged Entersoft Business data sets or custom made datasets |  | June-2019 |
| 179 | Azure Data Lake Storage Gen 2 (beta) |  |  | Jul-2019 |
| 180 | Dynamics 365 Customer Insights connector | * Single view of customers |  | July-2019 |
| 181 | Azure Cosmos DB Connector is now GA |  |  | July-2019 |
| 182 | Support for SAP HANA HDI Containers | * SAP HANA connector improved to enable consumption of views under HANA Deployment Infrastructure HDI Containers |  | Aug-2019 |
| 183 | Edit SAP variables in Power BI service |  |  | Aug-2019 |
| 184 | PostgreSQL DirectQuery (beta) | * DQ support within the PostgreSQL connector |  | Aug-2019 |
| 185 | MarkLogic connector now generally available | * Found in the Database category |  | Aug-2019 |
| 186 | New Power Platform category within Get Data | * Common Data Service connector added to this category * More enhancements to come related to Flow, PowerApps, and CDS |  | Aug-2019 |
| 187 | PostgreSQL connector enhancements | * DirectQuery support now GA * Native Query support with folding capable operations applied on top |  | Sep-2019 |
| 188 | Copy to clipboard from data profiling | * Can now export data profiling information by copying it to the clipboard |  | Sep-2019 |
| 189 | Query performance improvements for DQ models | * Runtime constant folding to improve query performance for some DQ models. |  | Sep-2019 |
| 190 | Sagra Emigo connector now GA | Emigo supports sales organizations and field teams management. |  | Oct-2019 |
| 191 | Azure Cost Management connector updated | * Now supports Oauth 2.0 * Performance improvements * Supports both Microsoft Customer Agreement and Enterprise Agreements (EA) * Enhancements to RI recommendations and RI usage data and the addition of amortized cost |  | Oct-2019 |
| 192 | New Workplace Analytics connector | * Uses data from everyday work in O365 to identify collaboration patterns that impact productivity. |  | Oct-2019 |
| 193 | LinkedIn Sales Navigator Connector (beta) | * Access LinkedIn’s network to help sales professionals find and build relationships |  | Nov-2019 |
| 194 | Edit SAP variables experience now GA | * Allows report consumers to edit SAP variables in the Power BI service with their DirectQuery reports |  | Nov-2019 |
| 195 | Vena Connector | * Finance process management software for budgeting, forecasting, planning…. |  | Nov-2019 |
| 196 | SiteImprove Connector | * Cloud-based Digital Presence Optimization software. | Monitors your websites performance for accessibility, SEO, anlaytics, quality assurance, and much more…. | Nov-2019 |
| 197 | Product Insights connector | * Dynamics 365 product which allows you to collect signals from your products and services | The connector accesses aggregated signal data (metrics) from Product Insights | Nov-2019 |
| 198 | Web by Example connector improvement | * Support has been added for extracting links | Links (src/hef attributes) can be extracted into their own fields | Nov-2019 |
| 199 | Azure Data Lake Storage (ADLS) Gen 2 connector is now GA | * Available in the Azure category of the Get Data dialog * Has been in beta in past few months |  | Dec-2019 |
| 200 | Power Platform Dataflows connector | * Can now connect to dataflows created within Power Apps environments and use just like normal dataflows. |  | Dec-2019 |
| 201 | PostgreSQL connector now includes the Npgsql | * This removes the previous requirement to install Npgsql * PBI Service also now supports cloud-to-cloud refresh of PostgreSQL |  | Dec-2019 |
| 202 | AtScale connector is now Generally Available | * Can be found in the Database category of the Get Data dialog |  | Dec-2019 |
| 203 | Azure Time Series Insights connector | * An end-to-end platform as-a-service offering used to collect, process, store, analyze, and query data at IOT scale | \*\*Connector is currently in beta | Dec-2019 |
| 204 | Data Virtuality Connector | * Data Virtuality Logical Data Warehouse, high performance data virtualization solution | Can connect to multiple data sources and query data with SQL regardless of the format of the source.  Allows you to integrate data and create a central data logic that covers over different systems. | Dec-2019 |
| 205 | Zucchetti HR Infinity connector | * Zucchetti HR software supports the HR department in valuing talents |  | Dec-2019 |
| 206 | MicroStrategy connector is now GA | * Connect to data from reports or cubes that reside in MicroStrategy project * Import | MicroStrategy Standard and LDAP Authentication <https://www2.microstrategy.com/producthelp/current/MSTRWeb/WebHelp/Lang_1033/Content/PowerBI_connector.htm>  Other category | Feb-2020 |
| 207 | FHIR connector is now GA | * Fast Healthcare Interoperability Resources * Translates Power Query expressions into FHIR search queries | Other category | Feb-2020 |
| 208 | Factset connector | * FactSet provides software and data solutions for investment professionals | Online Services category | Feb-2020 |
| 209 | TIBCO connector | * New Tibco connector * Data virtualization source that enables combining multiples sources without moving data | Other category | Feb-2020 |
| 210 | JamfPro connector | * Extend the reporting capabilities of Jamf Pro | Other category | Feb-2020 |
| 211 | Asana Connector | * Asana empowers teams to plan, organize, and execute their work | Online services | Feb-2020 |
| 212 | Hive LLAP | * Public preview of Hive LLAP connector * Import and DirectQuery capabilities * Found in Other category |  | Mar-2020 |
| 213 | Cognite connector | * Public preview * Connect to Cognite Data Fusion (CDF) |  | Mar-2020 |
| 214 | CDM Folder view for ADLS Gen2 | * Enhanced ADLS Gen 2 Connector * Option to view content in your data lake as CDM entities |  | Apr-2020 |
| 215 | Witivio connector | * Enterprise chatbot platform for employees with integration in MS 365 and Power Platform | Category: Online services | May-2020 |
| 216 | Linkar connector | * Connectivity to MultiValue Databases | Category: Database | May-2020 |
| 217 | Webtrends connector | * Microsoft-preferred solution for measuring performance of website or SharePoint environment | Category: Online Services | May-2020 |
| 218 | Planview ProjectPlace connector | * Plan, collaborate and track progress of all projects and assignments in an eay and user-friendly way | Category: Other | May-2020 |
| 219 | Shortcuts Business Insights connector | * Consume, read, and analyze data collected via your Shortcuts point of sale product of choice | Category: Other | May-2020 |
| 220 | Vesssel Insights connector | * Data infrastructure delivered as a service | Category: Other | May-2020 |
| 221 | Zoho Creator connector | * Low-code cloud software for creating customer applications for your business | Category: Online services | May-2020 |
| 222 | Palantir Foundry connector | * Foundry enables users with varying technical ability and deep subject matter expertise to work meaningfully with data | Category: Online services | Jun-2020 |
| 223 | Cherwell connector | * Connect to data in Cherwell Service Management instance | Available in Other section of Get data dialog | Aug-2020 |
| 224 | Automation Anywhere connector | * Connect to Robotic Process Automation (RPA) data | Available in Other section of Get data dialog | Aug-2020 |
| 225 | Acterys connector | * Connect to Acterys environment directly. * Acterys is a platform for data warehouse automation, corporate performance management, and FP&A for MS Azure, PBI, and Excel | Available in Other section of Get data dialog | Aug-2020 |
| 226 | CDS Connector (Preview) | * Connect to Common Data Services * Uses Tabular Data Stream endpoint for CDS |  | Sept-2020 |
| 227 | Azure Databricks | * Azure Databricks is an Apache Spark-based analytics platform optimized for the Azure cloud services platform. * Available in the Azure section of Get Data |  | Sept-2020 |
| 228 | MariaDB | * Enterprise open source database solution. Can support transactional, analytical, and hybrid workloads as well as relational, JSON, and hybrid models. * Available under the Database section of Get data. |  | Sept-2020 |
| 229 | Hexagon PPM Smart API | * These APIs provide access to data associated with Intergraph Smart 2D, 3D, Information Management, and Materials software applications. |  | Sept-2020 |
| 230 | Broader geographical support for Power Platform Dataflows connector | * Now supports Germany, UAE, Switzerland, and South Africa endpoints |  | Oct-2020 |
| 231 | MariaDB now supports DirectQuery | * Connector was introduced last month * Can now leverage data source server for intensive queries |  | Oct-2020 |
| 232 | Updated SharePoint Online List Connector | * New version of this connector offers improved performance and greater usability |  | Oct-2020 |
| 233 | New connectors:  Spigit  eWay-CRM | * Found in the Other category * Spigit is an information software provider * eWay-CRM is a CRM system embedded into MS Outlook |  | Oct-2020 |
| 234 | Hive LLAP connector now generally available | * Supports both Import and Direct Query * Is available as a source for on-premises data gateway * Found in the Other category of Get Data dialog |  | Nov-2020 |
| 235 | New connectors: Actian, Anaplan, Starburst Presto | * Actian: fully managed platform with a hybrid cloud data warehouse * Anaplan: connect Anaplan data and models to Power BI * Starburst Presto (beta): |  | Nov-2020 |
| 236 | Microsoft Dataverse Connector | * Supports DirectQuery * Under the Platform Category in Get Data UI |  | Dec-2020 |
| 237 | Azure Time Series Insights Update | * Added support for Azure B2B / Guest Account |  | Dec-2020 |
| 238 | SurveyMonkey Update | * Added support for customers in their EU datacenter, as well as small bug fixes |  | Dec-2020 |
| 239 | Cognite Update | * Now GA * Also adding support for AAD authenitication * Performance improvements for time series aggs |  | Dec-2020 |
| 240 | Snowflake Enhancement | * Support for custom roles |  | Feb-2021 |
| 241 | Parquet Files connector | * Now available in PBI Desktop * Previously was only available in dataflows |  | Feb-2021 |
| 242 | Hive LLAP enhancement | * Now supports Windows authentication |  | Feb-2021 |
| 243 | Salesforce enhancement | * API Update * Salesforce connector now uses by default V48 API to ensure updated compatibility |  | Feb-2021 |
| 244 | SAP HANA and BW: New Documentation | * New connector articles for SAP HANA and SAP Business Warehouse documentation | <https://docs.microsoft.com/en-us/power-query/connectors/sap-hana/overview>  <https://docs.microsoft.com/en-us/power-query/connectors/sap-bw/application-setup-and-connect>  <https://docs.microsoft.com/en-us/power-query/connectors/sap-bw/message-setup-and-connect> | Feb-2021 |