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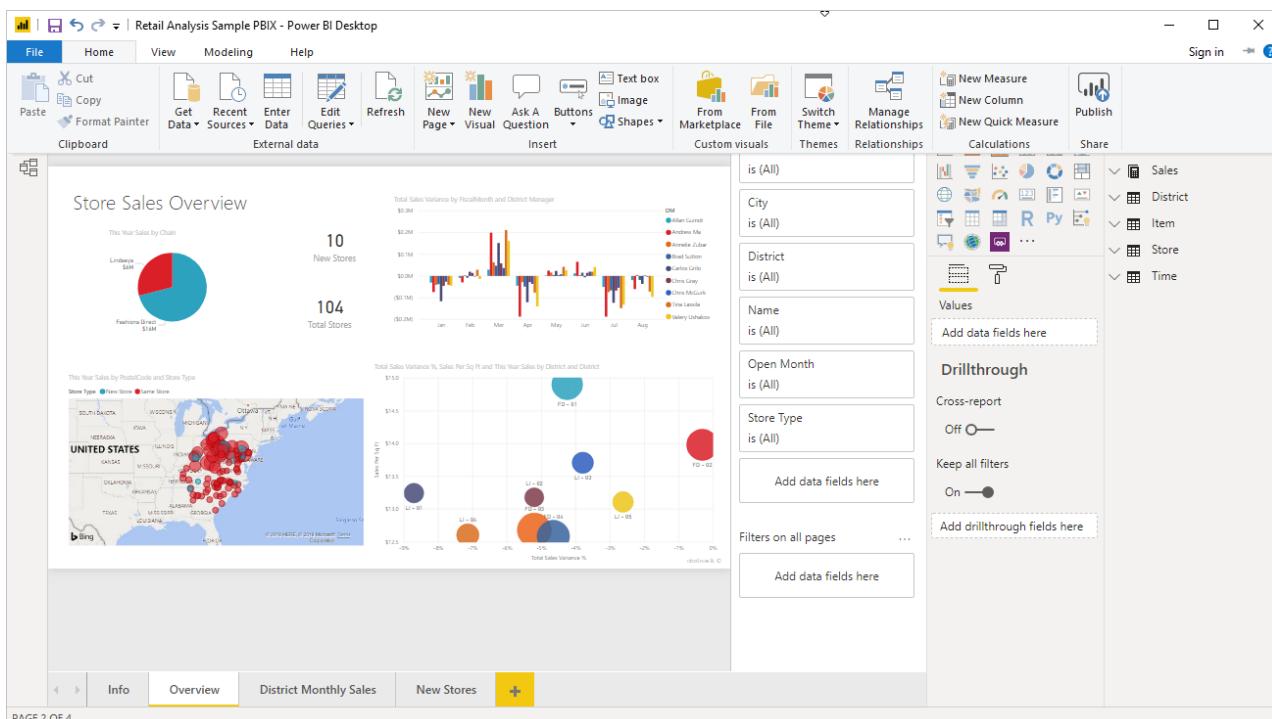
[Power BI Desktop Send a Smile Privacy Statement](#)

2 minutes to read

what is Power BI Desktop?

5 minutes to read • [Edit Online](#)

Power BI Desktop is a free application you install on your local computer that lets you connect to, transform, and visualize your data. With Power BI Desktop, you can connect to multiple different sources of data, and combine them (often called *modeling*) into a data model. This data model lets you build visuals, and collections of visuals you can share as reports, with other people inside your organization. Most users who work on business intelligence projects use Power BI Desktop to create reports, and then use the *Power BI service* to share their reports with others.



The most common uses for Power BI Desktop are as follows:

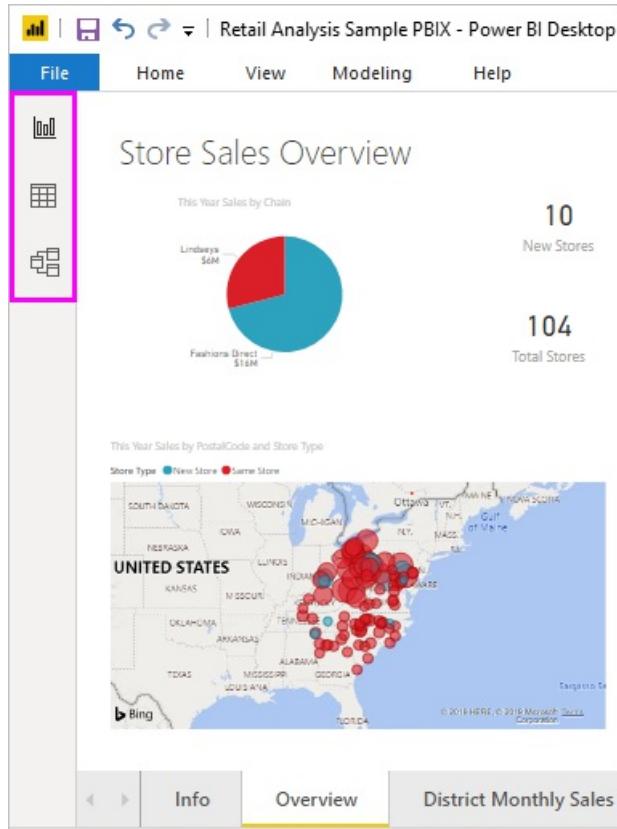
- Connect to data
- Transform and clean that data, to create a data model
- Create visuals, such as charts or graphs, that provide visual representations of the data
- Create reports that are collections of visuals, on one or more report pages
- Share reports with others by using the Power BI service

People most often responsible for such tasks are often considered *data analysts* (sometimes referred to as *analysts*) or business intelligence professionals (often referred to as *report creators*). However, many people who don't consider themselves an analyst or a report creator use Power BI Desktop to create compelling reports, or to pull data from various sources and build data models, which they can share with their coworkers and organizations.

There are three views available in Power BI Desktop, which you select on the left side of the canvas. The views, shown in the order they appear, are as follows:

- **Report:** In this view, you create reports and visuals, where most of your creation time is spent.
- **Data:** In this view, you see the tables, measures, and other data used in the data model associated with your report, and transform the data for best use in the report's model.
- **Model:** In this view, you see and manage the relationships among tables in your data model.

The following image shows the three views, as displayed along the left side of the canvas:



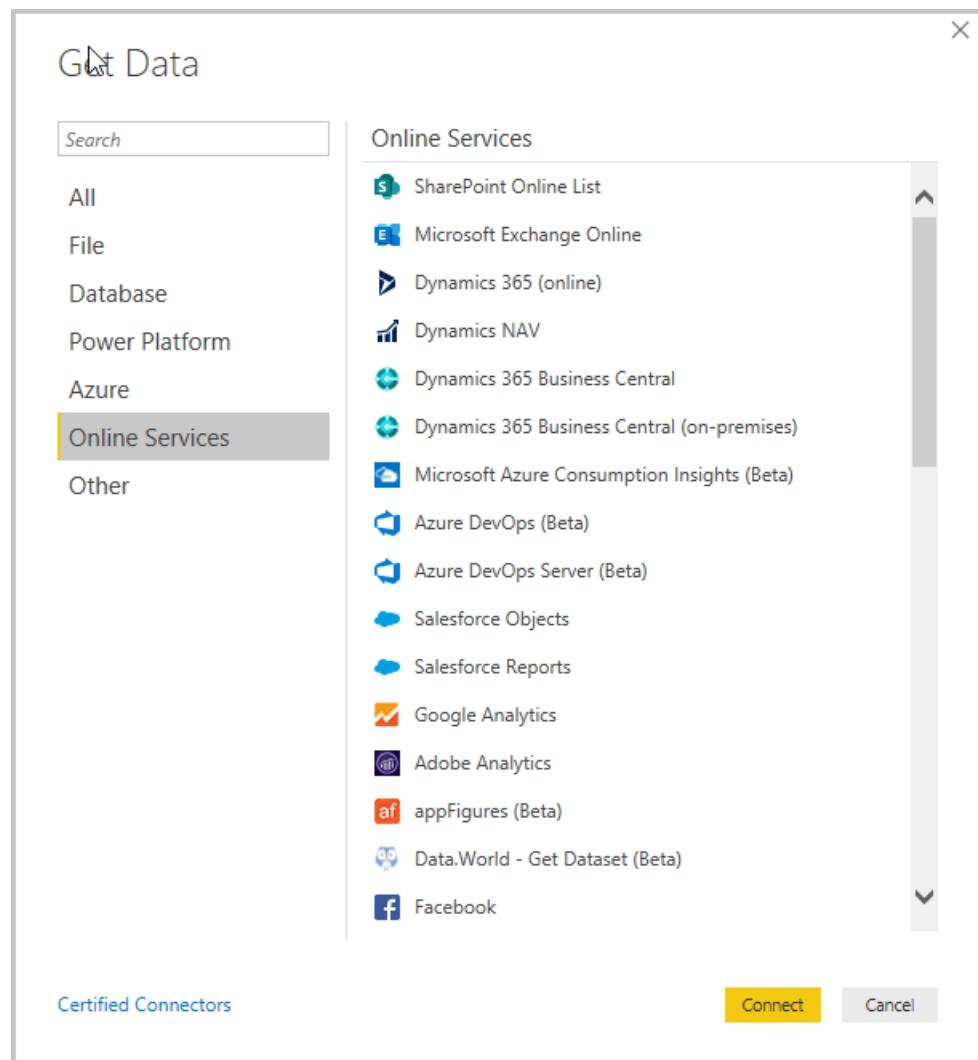
Connect to data

To get started with Power BI Desktop, the first step is to connect to data. There are many different data sources you can connect to from Power BI Desktop.

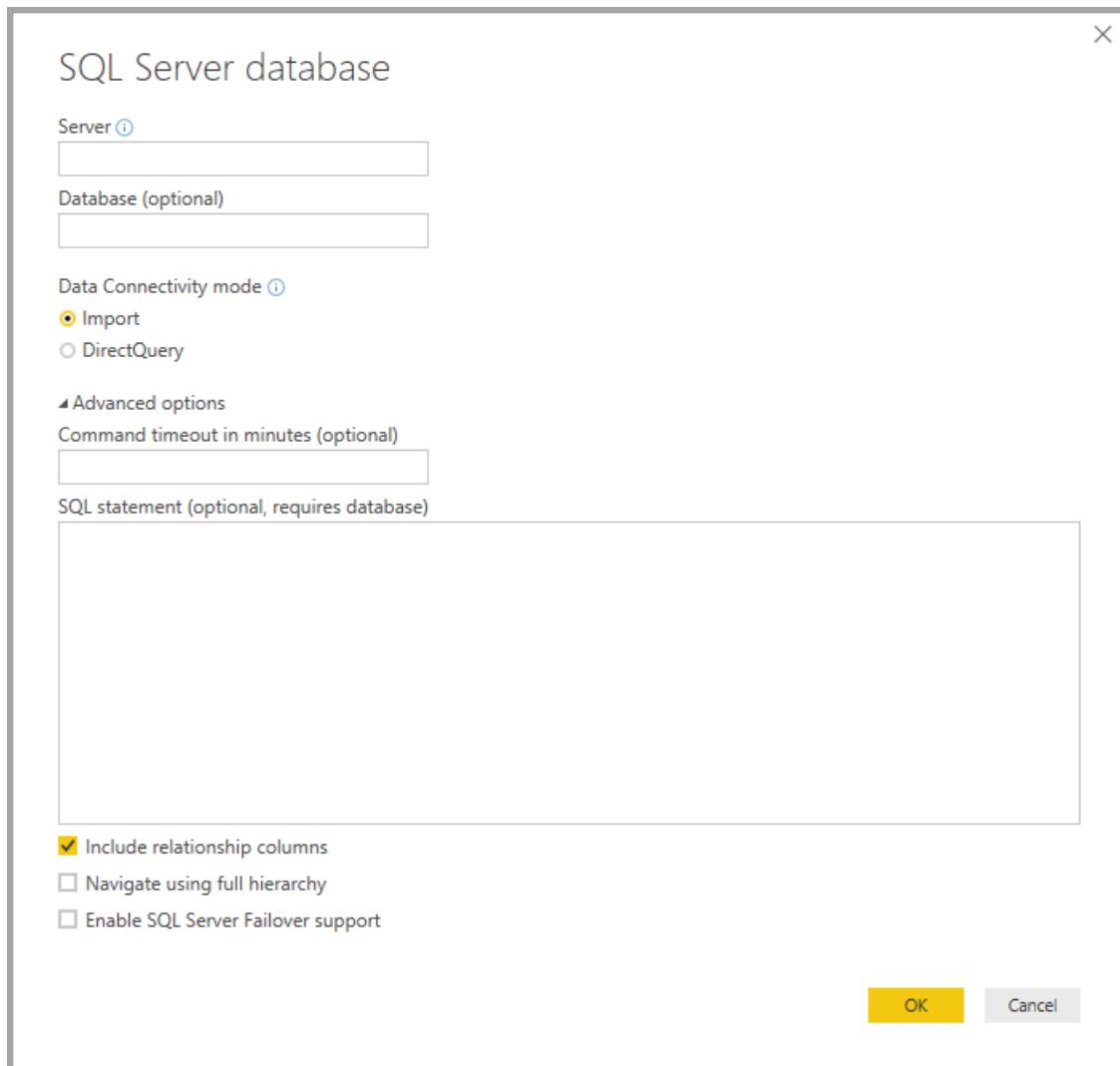
To connect to data:

1. From the Home ribbon, select **Get Data > More**.

The **Get Data** window appears, showing the many categories to which Power BI Desktop can connect.



- When you select a data type, you're prompted for information, such as the URL and credentials, necessary for Power BI Desktop to connect to the data source on your behalf.



3. After you connect to one or more data sources, you may want to transform the data so it's useful for you.

Transform and clean data, create a model

In Power BI Desktop, you can clean and transform data using the built-in [Power Query Editor](#). With Power Query Editor, you make changes to your data, such as changing a data type, removing columns, or combining data from multiple sources. It's like sculpting: you start with a large block of clay (or data), then shave off pieces or add others as needed, until the shape of the data is how you want it.

To start Power Query Editor:

- Select **Edit Queries > Edit Queries** from the Home ribbon.

The **Power Query Editor** window appears.

The screenshot shows the Power Query Editor interface with a query named "Ranking of best an...". The main area displays a table with columns: State, Overall rank, Affordability, Crime, and Culture. The "Applied Steps" pane on the right shows the "Changed Type" step.

State	Overall rank	Affordability	Crime	Culture
Nebraska	1	14	19	
Iowa	2	8	15	
Missouri	3	1	42	
South Dakota	4	17	23	
Florida	5	25	29	
Kentucky	6	9	9	
Kansas	7	7	39	
North Carolina	7	13	28	
Montana	9	16	31	
Hawaii	10	45	24	
Arkansas	11	4	46	
Wisconsin	12	20	15	
North Dakota	13	22	17	
Vermont	14	42	1	
New Hampshire	15	39	1	
	

Each step you take in transforming data (such as renaming a table, transforming a data type, or deleting a column) is recorded by Power Query Editor. Every time this query connects to the data source, those steps are carried out so that the data is always shaped the way you specify.

The following image shows the Power Query Editor window for a query that has been shaped, and turned into a model.

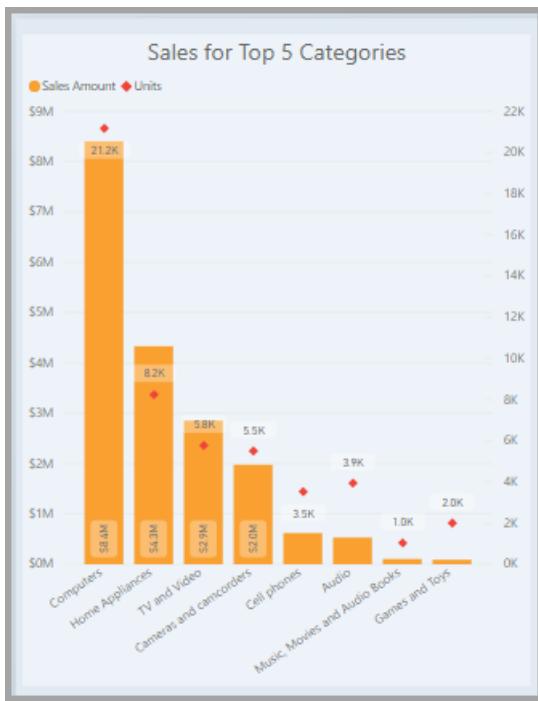
The screenshot shows the Power Query Editor interface with a query named "Best states for sun...". The main area displays a table with columns: State, Overall rank, Affordability, Weather, and three removed columns (Crime, Culture, Wellness). The "Applied Steps" pane on the right shows the "Removed Columns" step.

State	Overall rank	Affordability	Weather	Crime	Culture	Wellness
Hawaii	10	45	1			
Florida	5	25	2			
Louisiana	36	29	3			
Texas	17	24	4			
Georgia	28	19	5			
Mississippi	19	6	6			
Alabama	16	10	7			
South Carolina	41	27	8			
Arkansas	11	4	9			
Arizona	38	33	10			
Oklahoma	21	11	11			
North Carolina	7	13	12			
California	43	49	13			
Tennessee	22	12	14			
Kentucky	6	9	15			
Delaware	32	30	16			
Virginia	39	32	17			
Maryland	50	47	18			
Missouri	3	1	19			
Kansas	7	7	20			

Once your data is how you want it, you can create visuals.

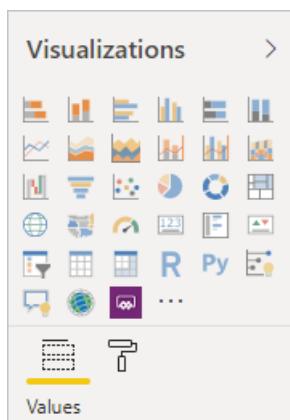
Create visuals

After you have a data model, you can drag *fields* onto the report canvas to create *visuals*. A visual is a graphic representation of the data in your model. There are many different types of visuals to choose from in Power BI Desktop. The following visual shows a simple column chart.



To create or change a visual:

- From the **Visualizations** pane, select the visual icon.



If you already have a visual selected on the report canvas, the selected visual changes to the type you selected.

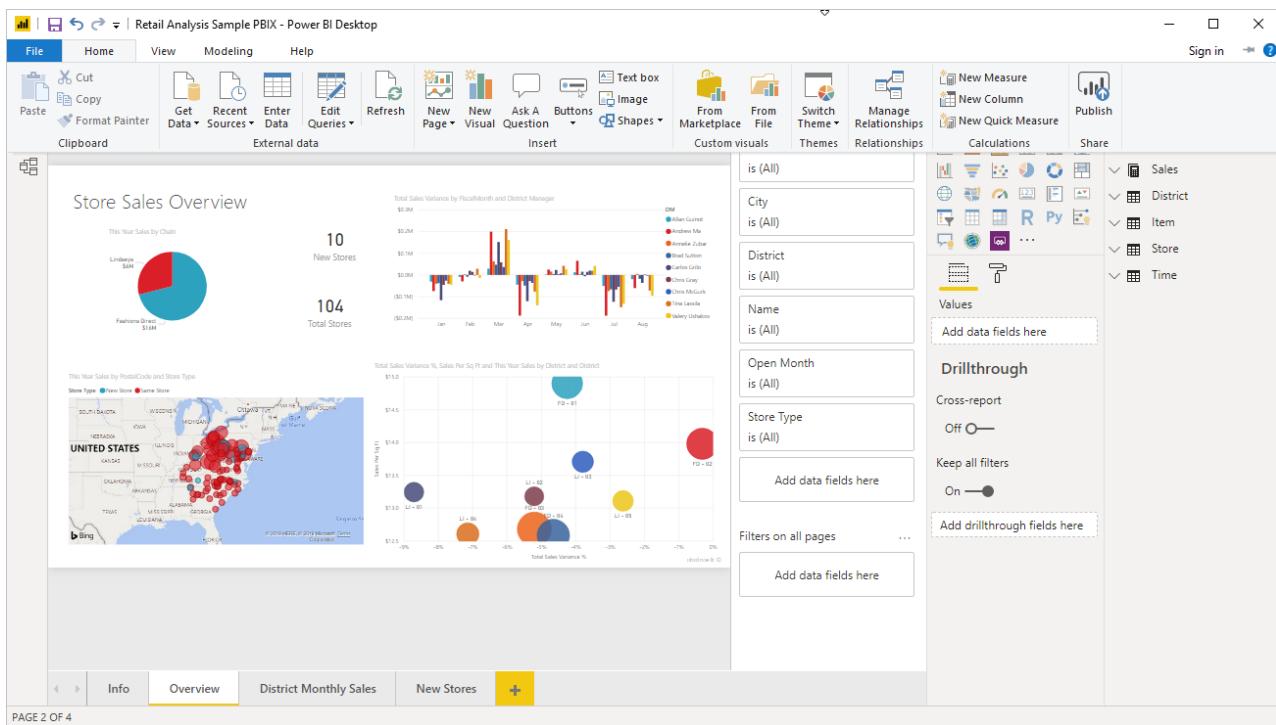
If no visual is selected on the canvas, a new visual is created based on your selection.

Create reports

More often, you'll want to create a collection of visuals that show various aspects of the data you've used to create your model in Power BI Desktop. A collection of visuals, in one Power BI Desktop file, is called a *report*. A report can have one or more pages, just like an Excel file can have one or more worksheets.

With Power BI Desktop you can create complex and visually rich reports, using data from multiple sources, all in one report that you can share with others in your organization.

In the following image, you see the first page of a Power BI Desktop report, named **Overview**, as seen on the tab near the bottom of the image.

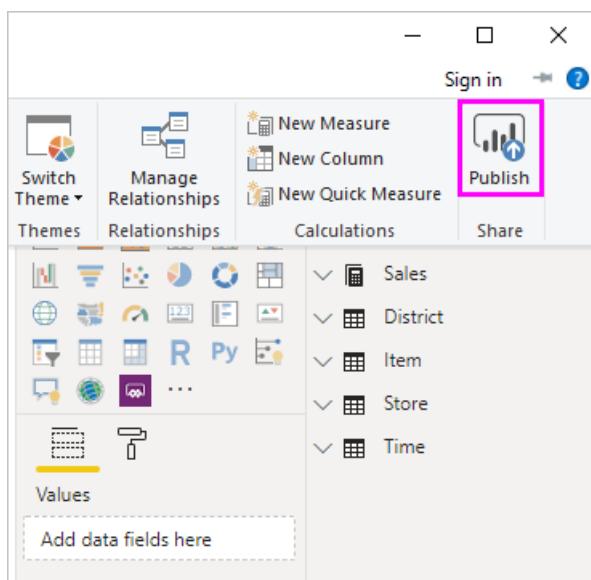


Share reports

After a report is ready to share with others, you can *publish* the report to the Power BI service, and make it available to anyone in your organization who has a Power BI license.

To publish a Power BI Desktop report:

1. Select **Publish** from the Home ribbon.



Power BI Desktop connects you to the Power BI service with your Power BI account.

2. Power BI prompts you to select where in the Power BI service you'd like to share the report, such as your workspace, a team workspace, or some other location in the Power BI service.

You must have a Power BI license to share reports to the Power BI service.

Next steps

To get started with Power BI Desktop, the first thing you need is to download and install the application. There are two ways to get Power BI Desktop:

- [Get Power BI Desktop from the Windows Store](#)
- [Download Power BI Desktop from the web](#)

What is the Power BI service?

2 minutes to read • [Edit online](#)

Power BI is a collection of software services, apps, and connectors that work together to help you create, share, and consume business insights in the way that serves you and your business most effectively. The Microsoft Power BI service (app.powerbi.com), sometimes referred to as Power BI online, is the SaaS (*Software as a Service*) part of Power BI. In the Power BI service, *dashboards* help you keep a finger on the pulse of your business. Dashboards display *tiles*, which you can select to open *reports* for exploring further. Dashboards and reports connect to *datasets* that bring all of the relevant data together in one place.

Need help with understanding the building blocks that make up Power BI? See [Basic concepts for designers in the Power BI service](#). Or visit our [playlist on YouTube](#). A good video to start with is *Introduction to the Power BI service*:

<https://www.youtube.com/embed/B2vd4MQrz4M>

The other main components of Power BI are the Windows desktop application **Power BI Desktop** and the Power BI **mobile apps** for Windows, iOS, and Android devices. You and your colleagues can use these three elements—Power BI Desktop, the service, and the mobile apps—to create, share, and consume business insights. Read [what is Power BI](#) for an overview.

Creating reports in the service

In a typical Power BI workflow, you begin by building a report in Power BI Desktop, then publishing it to the Power BI service.

This workflow is common, but you can also create Power BI reports right in the Power BI service. Do you have a subscription to a SaaS (software as a service) application like Salesforce? Power BI has apps that automatically create dashboards and reports from your online data. Get a head start by connecting to Salesforce or [check out the other SaaS apps](#) you can connect to. If you're part of an organization, someone in your organization may have published [apps](#) and distributed them to you.

Sharing your findings

After you've created reports and dashboards, you can share them so end users in the Power BI service and mobile devices can view and interact with them. Being able to control how you share your work is one of the most important features of the Power BI service. You create workspaces where you and your colleagues can collaborate on reports and dashboards. Then you can bundle and distribute them as apps. You can also share the datasets themselves, so others can use them as a basis for their own reports. Read more about [ways to share your work in Power BI](#).

Next steps

- Quickstart for consumers: [Learn your way around the Power BI service](#)
- Tutorial: [Get started with the Power BI service](#)
- Quickstart: [Connect to data in Power BI Desktop](#)

2 minutes to read

What's new in Power BI Desktop?

2 minutes to read • [Edit online](#)

March 2020 Update (2.79.5768.562)

We feel lucky as a four-leaf clover to share our March Power BI Desktop with you.

Get the latest version of Power BI Desktop from the [Download Center](#). If you're running Windows 10, you can also get Power BI Desktop from the [Microsoft Store](#). Regardless of how you install Power BI Desktop, the monthly versions are the same, although the version numbering may differ. For more information about downloading and installing Power BI Desktop, see [Get Power BI Desktop](#).

IMPORTANT

Beginning with the September 2019 release, Power BI Desktop is released only as a single .exe file, which contains all supported languages. The .msi version is no longer being released.

The links beside each feature in the Power BI Desktop update list are interpreted as follows:

- [blog]: Most features are explained in a section in the monthly update blog post.
- [video]: Some features have a video excerpt that discusses the feature, which plays in a new browser tab.
- [article]: Some features have an article that provides more detail.
- The remaining features are self-explanatory and don't need an article or video.

You can also watch the entire [Power BI Desktop monthly update video](#).

The following updates are new to Power BI Desktop this month:

Reporting

- New action types for buttons [\[video\]](#) [\[blog\]](#)
- Multi-column sort for tables [\[video\]](#) [\[blog\]](#)
- Dual axis for line chart [\[video\]](#) [\[blog\]](#)
- Filter pane search [\[video\]](#) [\[blog\]](#)
- Updates to decomposition tree visual [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- New ribbon is now on by default [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Modeling

- New DAX function: COALESCE [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Visuals

- Updates to ArcGIS Maps [\[video\]](#) [\[blog\]](#)
- New Power BI visuals [\[video\]](#) [\[blog\]](#)

Template apps

- Azure DevOps dashboard by Data Maru [\[video\]](#) [\[blog\]](#)
- TeamsPower by Encamina [\[video\]](#) [\[blog\]](#)

Data preparation

- Query diagnostics now generally available [\[video\]](#) [\[blog\]](#)

Data connectivity

- Hive LLAP connector (preview) [\[video\]](#) [\[blog\]](#)
- Cognite connector (preview) [\[video\]](#) [\[blog\]](#)

Other features

- Enhanced dataset metadata (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Using default system credentials for web proxy [\[video\]](#) [\[blog\]](#)
- New instructor-led administrator in a day training [\[video\]](#) [\[blog\]](#)

For detailed information about each of these new features, see [Power BI Desktop feature summary blog post](#).

Check out [what's new in the Power BI service](#), and [what's new in the mobile apps for Power BI](#).

NOTE

See the [data sources available to Power BI Desktop](#). Our list is always growing, so check back often.

Power BI Desktop monthly update video

The following video describes each of these updates. You can also watch this video from the [blog post](#):

More videos

Like learning about Power BI through videos and other engaging content? Check out the following collection of video sources and content:

- [Power BI channel](#): a collection of Power BI videos on YouTube.
- [Guided Learning for Power BI](#): a sequential learning tour of Power BI, in bite-size pieces.

Updates for previous months

Looking for Power BI Desktop updates for previous months? You can find them in the [Power BI Desktop monthly updates archive](#).

what's new in the Power BI service

34 minutes to read • [Edit online](#)

Check this page for known issues and recently released features in the **Power BI Service**. For related "What's New" information, see:

- [what's new in business intelligence October '18 release notes from the Microsoft Business Applications Group: The latest updates to our business applications.](#)
- [what's new in Power BI Desktop](#)
- [what's new in the mobile apps for Power BI](#)
- [Power BI team blog](#)

Also, check out the YouTube channels for information about "What's new" and features.

- [Microsoft Power BI \(YouTube\)](#)
- [Guy in a Cube \(YouTube\)](#)

October 2019

- New Power Automate action to refresh Power BI datasets.
- [Contact list](#) for reports and dashboards in the Power BI service.

Previous months (2019)

September 2019

- Updates to connection configuration for [template apps](#).

August 2019

- New capacity settings for Power BI Premium.
- [Custom branding](#) for your organization.
- Summarized data export with build permission.
- Support for URL parameters for [paginated reports](#).
- Support for monthly e-mail subscriptions.

July 2019

- Support for non-premium datasets for [paginated reports](#).
- General availability of Power BI [aggregations](#).
- Send refresh notifications to others.
- [Testing tool](#) for Power BI Premium capacities.
- Public preview of [service availability notifications](#).
- Public preview of the [New Look](#) for Power BI reports.
- New Power BI region in South Africa.

June 2019

- Public preview of [Shared and Certified datasets](#).
- AI metrics available in the [Premium Capacity Metrics app](#).
- General availability of Power BI [template apps](#).
- General availability of [paginated reports](#) in Power BI.

- Public preview of Bring Your Own Key (BYOK) for Power BI Premium.
- Viewer role for the new workspaces experience.

May 2019

- Custom navigation for Power BI Apps.
- Additional attachments types (PPTX, XLSX, DOCX, CSV, XML) available for e-mail subscriptions within paginated reports.
- Commenting for Power BI reports in the service.

April 2019

- General availability of Power BI dataflows.
- General availability of the new workspaces experience.
- New Power BI regions in France and Korea.
- Updated Q&A experience for dashboards.
- Support for Azure Analysis Services within paginated reports.
- Paginated reports supported in Power BI Apps.
- E-mail subscriptions with PDF attachments for paginated reports.
- Power BI Premium summary and workload metrics supported in Admin Portal
- Query caching available in Power BI Premium.
- General availability of Power BI Home.

March 2019

- General Availability of Multi-Geo for Power BI Premium.
- Editing and managing Power BI content support for Azure B2B.
- Public preview of read-only XMLA endpoint.

February 2019

- Workloads and active dataset size metrics in Capacity Monitoring app.
- Export to PDF for Power BI reports.
- On-demand e-mail subscriptions.
- Bulk operations in the Admin Portal.
- Filtered export for PPT and PDF.
- Help and support settings in the Admin Portal.
- Data lineage experience for dataflows.
- Certified Power BI visuals setting in the Admin Portal.

January 2019

- Embedding secure Power BI reports in internal portals or websites.
- Updates to dataflows editor with new connectors, and support for native SQL queries and Power Query Online transformations.
- Personal bookmarks in the Power BI service.
- Time-based scheduling with e-mail subscriptions.

2018

December 2018

- AI-powered recommended apps in Power BI Home.
- Workspace management in the Admin Portal.
- Preview of Power BI Dataflows and Azure Data Lake Storage Gen2 Integration in dataflows.

- Power BI solution templates became open source.

November 2018

- Power BI data prep available with [dataflows](#) public preview.
- Public preview of [paginated reports](#) in Power BI Premium.
- Data size and count of datasets in memory in the [Capacity Monitoring app](#).

October 2018

- Aggregations[desktop-aggregations.md] in the Power BI service.
- Power BI expanded to three new regions: Central India, Australia East, and Central US (Iowa).
- Export to PowerPoint made generally available.

September 2018

- [Dashboard commenting](#) in the Power BI service.
- Public preview of [Power BI Home and Global Search](#).
- Ability to [monitoring queries](#) in the [Capacity Monitoring app](#).

August 2018

- [Capacity Monitoring app](#) for Power BI Premium.
- Power BI [Report URL filter](#) improvements.

July 2018

- Power BI visuals support for [persistent filters](#).
- [APIs and PowerShell Cmdlets](#) for Power BI administrators.
- [Multi-Geo support](#) for Power BI Premium.

June 2018

- Sharing reports with filters and slicers.
- New and improved user interface for [gateway connections](#) and setting up datasets.

May 2018

- [Theme dashboards](#) in the Power BI service.
- [Incremental refresh](#) with Premium.
- Request access workflow for [Power BI Apps](#).
- Get Data updates to make it easier for users to find [Power BI Apps](#).
- Settings to turn on and off [Persistent filters](#) in the Power BI service.
- Azure B2B invite workflow improvements for reports.

April 2018

- [Power BI Whitepaper on data protection](#)
- Power BI Service [audit logs](#) turned-on by default for Office 365 tenant.

March 2018

- [Persistent filters](#) in the Power BI Service.
- Share content with users using their personal e-mail accounts. Extension of [Azure Active Directory B2B](#).

February 2018

- Automatically install [Power BI Apps](#) for end users.
- P4 and P5 capacities on Power BI Premium

- Preview of [Organizational Power BI visuals](#).

January 2018

- Share and favorite Power BI reports.
- OAuth2 and DirectQuery Single Sign-on Support (SSO) for Azure SQL Database and Data Warehouse.
- In-region auditing: audit logs will now be stored in the same Office 365 region as their tenant.
- GA of SharePoint Online [Power BI report web part](#).
- Admin control to turn off viewing Power BI visuals for all users in a tenant.
- Scheduled refresh support for Azure Analysis Services (AAS).

Previous months (2017)

October and November 2017

- Selective publish of content with [Power BI Apps](#).
- External user distribution with [Azure Active Directory B2B](#).
- AI-powered app recommendations.
- Dashboard on-tile UI updates.
- E-mail subscriptions support for apps.
- Granular admin control for [publish to web](#).

September 2017

- In Premium capacity, share dashboards to users who don't have a Power BI Pro license.
- Allocate capacities to suit your business needs with v-core pooling.
- Instantly scale-up or scale-down capacities with one click.
- [PubNub block](#) to easily push data into REST APIs
- Improved load performance for [usage metrics](#).

August 2017

- Know your audience with [per-user usage metrics](#).
- Get started with [Power BI service](#) apps for online services.
- Connect to IBM Netezza with the On-premises data gateway through both import and DirectQuery connectivity modes.
- [Dynamic RLS](#) now supported for Power BI Embedded.
- Advanced [filtering API](#) now added for the 1.7 release of Power BI visuals API.

July 2017

- Support for [email subscriptions](#) on dashboards.
- Inspect and diagnose why the loading time is poor for dashboards using the Performance Inspector.
- Snowflake and SAP BusinessWarehouse DirectQuery now supported for On-premises data gateway.
- New [APIs to manage data refresh](#) in Power BI service.

June 2017

- [Power BI Premium](#) made generally available.

- Multiple API improvements to [automate scheduled refresh](#), [clone and rebind reports](#), [update gateway bindings](#), and much, much more
- Relative links in Power BI apps from dashboard tiles to other dashboards and reports.
- [Impala connector](#) generally available on Power BI Desktop.
- Extend visual capabilities of Power BI with [interactive R Power BI visuals](#).

April and May 2017

- Measure and magnify your impact with [usage metrics for dashboard and report creators](#).
- Connect to PostgreSQL with the On-premises data gateway.
- Power BI SharePoint Web Part made available for all users.
- Connect Power BI to any data source using the [Data Connector SDK](#).
- Navigate to reports with multiple URL filter parameters.
- Preview: [Use Power BI Apps](#) to widely distribute your dashboards and reports to large audiences.

March 2017

- Fine-tune how Power BI used in your organization with [granular admin controls](#).
- Get more done in less time with the [View Related Content pane](#).
- Improved [troubleshooting messages for DAX queries](#).
- Exercise more control over your datasets with [custom cache refresh schedules](#).
- Connect to [Amazon Redshift](#).
- Browse [Power BI visuals in the Office Store](#).
- Preview: [Subscribe to report pages](#) to stay on top of your data.
- Use the Azure AD Content Pack to learn more about how your employees and partners are using Azure AD.

February 2017

- [Navigation Preview improvements](#) – more easily switch between workspaces, and take action on content within the current workspace.
- [Embed Power BI dashboards](#) into your custom application.
- Preview: [Integrate Power BI reports in SharePoint Online](#).

January 2017

- Administer Power BI using the [Power BI admin role](#).
- [Power BI audit logs](#) in the Office 365 auditing portal are globally available.
- Version 1.4 of [developer tools and Power BI visuals APIs](#) released.
- [Real-time streaming feature set](#) released to general availability.
- Push data to Power BI using [Power Automate](#) without writing a line of code.
- Preview: [Subscribe to report pages](#) to stay on top of your data.
- Use the Azure AD Content Pack to learn more about how your employees and partners are using Azure AD.

2016

November 2016

- Preview: Try out the new navigation for the Power BI service, [powerbi.com](#)
- Preview: [Export a Power BI report to PowerPoint](#).
- Preview: [Download Power BI reports \(PBIX files\)](#) from the Power BI service so you can edit them in Power BI Desktop.
- Create a [Liquid fill gauge](#), a circle gauge that represents a percentage value with animated liquid waves.
- Explore your [Jira project-management data](#) with this Power BI content pack
- Explore your [Insightcentr data](#) with this Power BI content pack
- Create infographics quickly with the [infographic designer custom visual](#)
- Preview: [Azure Stream Analytics](#) outputs Power BI streaming datasets, with which you can create streaming tiles.
- Preview: Add [ESRI ArcGIS Maps Visualizations](#) to your reports and dashboards

October 2016

- Take advantage of [Power BI integration with the new Microsoft Teams](#).
- Design [R visualizations](#) in Power BI without understanding R.
- Preview: With [Azure Analysis Services](#), BI professionals can create BI semantic models based on data that resides in the cloud or on premises, to provide business users with a simplified view of their data.
- The new [Power BI Service Administrator Role](#) can be assigned to users who should have access to the Power BI Admin Portal but not other Office 365 administrative access.
- Explore your [MYOB Advanced data with Power BI](#).
- How a non-administrator can review the [Power BI audit log](#)
- Display [text columns as ToolTips](#).

July 2016

RLS graduates from preview

- Row Level Security (RLS) lets you restrict data access based on who is accessing it. Recently we streamlined the process of configuring RLS by exposing roles and rules in Power BI Desktop. Today, we are happy to announce that RLS is now generally available for all Power BI Pro users.

Data classification

- You can now tag your dashboards with classifications defined by your company's IT department, raising awareness of those viewing your dashboards about what level of security should be used.

Analyze your on-premises data in Excel

- Analyze in Excel feature has expanded to support on-premises datasets. We establish a secure and direct connection to your on-premises dataset that enables you to analyze it in Excel. We also introduced a setting for admins to turn off the Analyze in Excel feature for on-premises sources.

For all the details, [visit the Power BI team blog](#)

June 2016

Quick Insights

- **Quick Insights work with Complex Filters:** We are happy to announce that Quick Insights scoped to a single tile now understand complex filters.

For all the details, [visit the Power BI Team blog](#)

May 2016

Get Data

- **File size limit increase to 1 GB:** We increased the file size limit for both Excel workbooks and Power BI Desktop files to 1 GB.
- **Find SSAS servers set up with the Enterprise gateway and other gateway updates:** Now when you set up an Enterprise gateway, users in your company will be able to access these servers in the Power BI service through the Get Data page. We also added support for refreshing datasets that include data from SAP Business Warehouse Server using the gateway and creating UPN mapping rules when you are using Analysis Services with the gateway.

Row-level security (RLS)

- **Azure Active Directory (AAD) group support:** Users can now assign AAD groups (security groups and distribution lists) to a role. This makes it easier to assign roles to a large group of users at once.
- **Test your RLS roles with reports backed by the data with RLS in place:** We added a feature to our RLS preview that lets you test your dataset as a specific role. This will make sure the role works as you expect before any users get their hands on your dashboard.
- **Define and apply RLS to cloud models based on direct queries:** You can now create and apply RLS rules for direct query data sources.

Dashboards

- **Favorite dashboards:** To help you reach the dashboards you go to most, we added a way to favorite those dashboards and make them easily accessible from all your workspaces.

Analyze in Excel

- **Improved download experience:** Easily download updates to the Analyze in Excel feature through a new dialog experience.
- **Support for RLS:** Once you set up RLS, the rules you apply to the data now flow through when a user analyzes the data in Excel.
- **Improved error messaging for on-premises Analysis Services databases:** Previously, if you selected Analyze in Excel for an unsupported data source, you wouldn't get an error message until after you downloaded the ODC file and tried to connect to Power BI. Now as soon as you select Analyze in Excel for a data source we don't support, you'll see a message letting you know we don't yet support that data source.

For all the details, [visit the Power BI Team blog](#)

- **Power BI Q&A support for SQL Server 2016 Analysis Services tabular models:** We are pleased to announce improvements to the Power BI Q&A user experience and the start of the public preview for Power BI Q&A for enterprise gateway connected data sources - starting with support for SQL Server 2016 Analysis Services tabular models. For all the details, [see the blog post](#)

- **Local File Support for Excel Reports:** You can now upload your Excel files from your local drive or other storage services and use that Excel Report just as you would in Excel Online with the added benefits of Power BI. For all the details, [see the blog post](#)

April 28, 2016

- **Quick Insights on Dashboard Tiles:** When viewing a tile in Focus mode, click Get Insights to search the tile and its related data for correlations, outliers, trends, seasonality, change points in trends, and major factors automatically, within seconds.

For all the details, [visit the Power BI Team blog](#)

April 26, 2016

- **Narratives for Power BI:** As you interact with your data and visualizations, this custom visual dynamically delivers insights in narrative form, just like you'd expect an analyst would write. This visual is fueled by [Narrative Science Quill](#).

For all the details, [visit the Power BI Team blog](#)

April 16, 2016

- **Microsoft Trust Center:** Power BI joined the Microsoft Trust Center, a single source for documenting compliance certifications for Microsoft products. Power BI's certifications include ISO 27001, ISO 27018, EU Model Clauses, HIPAA BAA, and UK G-Cloud.

For all the details, [visit the Power BI Team blog](#)

April 14, 2016

Enterprise

- **Content pack support for RLS (Preview):** If RLS is defined for those dashboards and reports that are distributed as part of a content pack, then the security rules will be respected for those content packs.

Dashboards

- **Vimeo video tile:** From the dashboard, add a tile that contains an embedded Vimeo player.

Analyze in Excel

- **Analyze in Excel available to all users:** the ability to access your Power BI data models in Excel has been extended to all users, regardless of the license they're assigned.
- **Improved multi-user account experience:** if you have more than one Power BI user account, it's now easier to sign in.

For all the details, [visit the Power BI Team blog](#)

March 31, 2016 Lots of updates announced at the Microsoft Data Insights Summit.

Dashboards

- Featured dashboard: makes it easier to reach the dashboard you care about most.
- Filter dashboard list: show all, show content you created, show content shared with you.

Enterprise features

- Admin usage reporting: added a usage report to the Power BI admin center.
- Row-level security: this is a Preview feature that allows you to set permissions on Power BI datasets.
- Disable exporting data: users in your tenant will no longer be able to export tile and visual data to a .csv file.

Q&A

- Auto complete for "is": Q&A will suggest values if you type column name followed by "is".

Mobile

- KPIs on your Apple watch: monitor your KPI and card tiles without having to open Power BI app.

Excel

- Analyze in Excel: connect your Power BI data model to Excel and do your analysis inside of Excel instead of Power BI.

Other

- Power BI in Australia: now anyone in Australia, individual or through an organization, can go to powerbi.microsoft.com and sign up for Power BI.
- Language settings: override the automatic language detection and set the language for Power BI.

For all the details, [visit the Power BI Team blog](#)

March 11, 2016

This month we made some updates to dashboards, Quick Insights, and Q&A.

Dashboards

- Full Screen mode: print without having to exit Full Screen mode first
- Full Screen mode: expand your tiles to fill the entire canvas and remove excess white space by selecting **Fit to Width**
- Use Tile Flow to automatically align your tiles to the top-left corner of the canvas.

Quick Insights

- The Trend and Correlation insights now have trend lines to make it easier to see patterns in the data.

Q&A

- You can now specify Gauge and Area charts in Q&A
- Improved auto-complete for Q&A - as soon as you type just a few characters, Q&A begins auto completing and suggesting visuals for you.

For all the details, [visit the Power BI Team blog](#)

February 10, 2016

Today we released a long list of top-requested features. [Read the blog post.](#)

Sharing

- Share with users outside your organization
- Request access to a dashboard

Admin Portal

- Easy user management with a link to the Microsoft 365 admin center
- Ability to disable publishing to web
- Prevent users from publishing content packs to the entire org
- Ability to disable sharing content to external users

Quick Insights

- Quick Insights when you publish Power BI Desktop files

Dashboard

- Add Web content to your dashboard (via Widget)
- Add video content to your dashboard (via Widget)
- Zoom on dashboards

Connectivity

- Connect to files on your team SharePoint site through a URL

For all the details, [visit the Power BI Team blog](#)

January 28, 2016

Updates to reports and visualizations:

- [Add borders to visuals](#)
- [Add background images to pages and Cartesian chart plot areas](#)

Performance Improvements for report rendering, cross-highlight, etc.

- Regardless of the browser version being used, a significant Performance improvement can be noticed by users when loading reports, switching between pages, cross-highlighting data across visuals, etc. with this new update.

January 6, 2016

The Power BI team has been busy over the holiday break. For all the details, [visit the Power BI Team blog](#)

Dashboards

- Export tile data
- Add an image or text box widget to dashboards
- Print dashboards
- Refresh time on tiles

- Tooltips on dashboard tiles

Collaboration

- Shared dashboard notification
- Contact owner of a shared or organizational dashboard

Reports

- Print current report page
- Export report visual data

Connectivity

- Connect to files on SharePoint team sites

Excel Reports

- Open Excel reports in Excel desktop
- Pin Excel charts
- Format improvements for Excel tiles

Other

- Power BI in Brazil
- Hebrew and Arabic support

For all the details, [visit the Power BI Team blog](#)

2015

December 16, 2015

Lots of updates this week, most apply to Power BI Desktop but several significant updates to report authoring and visualizations as well. The [Power BI Team Blog](#) contains full descriptions and even a video describing the updates.

[Download Power BI Desktop](#)

- Updates to the report authoring formatting pane and ribbon:
 1. Format data labels per category series
 2. Change number of decimal places showed in visuals
 3. Change text size in visuals
 4. Ability to lay out visuals accurately: alignment, distribute, size, position (requires Power BI Desktop for authoring)
 5. Set styles across multiple visuals through Format Painter (requires Power BI Desktop for authoring)
- Enhancements to visualizations:
 1. visuals cue for sort state in Table visual
 2. new visual: Stacked Area chart
 3. smart tooltips for Area and Line charts on hover
 4. ability to create Reference line/region for a Cartesian visual
 5. improved data labels for pie and scatter chart
- R visuals integration in Desktop (Preview feature)

- Desktop will suggest table to table relationships when trying to create 2 tables which are not related.
- Desktop optimized Home ribbon layout.
- Desktop data modeling updates in Relationships View:
 1. zooming slider
 2. fit zoom to
 3. reset layout
 4. ability to zoom in using Ctrl-Mouse selection rectangle
- Desktop data connectivity enhancements
 1. SSAS Multidimensional support - Hierarchies support (Preview Feature)
 2. Stripe Connector
 3. Smartsheet Connector
 4. "Enter Data": Paste or enter data to create a table
 5. DirectQuery Improvements: Support for all data types of T-SQL and SAP HANA, resulting in Performance improvements.
 6. ODBC Connector: Support for selecting User/System DSNS
 7. CSV Connector: Ability to specify Column Delimiter in the Source dialog

For all the details, including a video demonstrating many of these updates, visit the [Power BI Blog](#).

December 10, 2015

- Pin report pages to dashboard
- Refresh dashboard tiles
- Use images in slicers
- Change interactions between report visuals

For all the details, visit the [Power BI Blog](#).

December 8, 2015

- [QR codes in Power BI](#)

December 3, 2015

- Automatically discover trends and uncover patterns in a dataset with Quick Insights: [video or article](#)
- [Visualize your VMob data in Power BI](#)
- [Preview of Power BI gateway for enterprise](#)
- Introducing a new content pack: [Search Analytics from Bing on Power BI dashboards](#)
- New Developer-focused enhancements: [Two new APIs and easier app registration](#)

November 24, 2015

- Pin Excel ranges to dashboards

- Chromeless full screen mode for dashboards and reports
- Know where your data is stored
- Improved loading of on-premises reports
- Share dashboards directly to another user's workspace
- Improved Google Analytics connector experience
- Close your Power BI account

For all the details, visit the [Power BI Blog](#)

November 18, 2015

- Create a duplicate dashboard
- Freely position dashboard tiles
- Improved navigation for full screen view
- Better experience when inviting peers from your organization to Power BI groups
- Improved error messages for tiles

For all the details, visit the [Power BI Blog](#)

November 11, 2015

- New site for Power BI documentation, localized
- Improved load time for reports
- Update organizational content packs with report-only changes
- Power BI health status in Microsoft 365 admin center
- KPIs and images in tables, matrices, and cards

For all the details, visit the [Power BI Blog](#)

November 3, 2015

- Guided Power BI purchase experience.
- Individuals can buy Power BI Pro.
- Duplicate report page.

For all the details, visit the [Power BI Blog](#)

October 28, 2015

- Share dashboards with Active Directory Security groups
- People picker
- Sharing with a large number of email addresses
- Collapse nav pane through an URL parameterized

For all the details, visit the [Power BI Blog](#)

October 20, 2015

- Read-only members in Power BI groups
- Featured questions in Q&A
- Full screen pop-out mode for report visualizations

For all the details, visit the [Power BI blog](#)

October 13, 2015

- Full screen mode to display your dashboards and reports on big screen TVs
- 'Fit to screen' support in full screen mode to display your entire dashboard in the available space
- In-focus mode to get more details on dashboard tiles
- Ability to view last update time for each tile
- Ability to view the source for each tile
- Planview Enterprise is an end-to-end portfolio and resource management solution that connects strategy to execution, improving decision-making across the enterprise. The Planview Enterprise content pack for Power BI allows you to visualize your resource and work management data in an entirely new way. Simply sign in with your credentials and begin to interactively explore your portfolio investment spend, budget status, and how well your projects align with strategic priorities.

View our [blog](#) and [online documentation](#) to learn more.

October 6, 2015

- With Power BI Q&A, you can explore your data using simple, intuitive questions and receive answers in the form of interactive charts and graphs. With this release, we have added a feature to help you get started with Power BI Q&A, even when you do not know anything about the data. To get started with this, [navigate to any dashboard and click the "How to ask" link near the Q&A question box](#). Power BI presents you with a number of suggestions based on your data.
- Two weeks ago, we introduced support for inserting shapes into the report canvas in Power BI Desktop. This week, we are happy to announce that you can now add shapes to your report canvas when you are authoring and/or editing reports in the Power BI web app.
- We have added the option to turn off email notification when you share a dashboard. Simply uncheck the "Send email notification to recipients" check box in the Power BI share dialog. You will be presented with a URL – copy and share this URL to your colleagues to give them access to the dashboard.
- Microsoft Dynamics NAV is a business management solution for small to medium organizations. It offers customers a full solution for their business with greater control over their financials and business processes. The Power BI content pack provides out-of-box reports for Dynamics NAV users, such as sales and profit, opportunities pipeline, profitability and more. These metrics are organized on a dashboard that can be fully customized, allowing you to easily connect and immediately start exploring your data.

Check out the [blog](#) and [online documentation](#) for more information.

September 29, 2015

- With this week's service update, when creating new reports you can now choose from multiple page sizes as well as define your own page size. This controls the size and aspect ratio of each page in the report.
- We added additional visual formatting support for images and bubble charts. You can lock the aspect while resizing images to avoid image distortion and scatter chart bubbles can be configured to be filled or

not.

- Today, Power BI will send sharing invites to an alternate email address. When a dashboard is shared with you, we will send the sharing invite link both to your original email address and to your alternate email address (if you have it configured).
- Power BI is available to all customers including those on the Dedicated on Multitenant (DonMT) O365 architecture. You will be using Power BI as a shared service in multi-tenant mode. In most cases, you can register for Power BI by following the simple [self-service-signup process](#) – just enter your work email address, enter your name and password to get started. If you are the tenant administrator, you can assign licenses to your users using the instructions [here](#).
- Azure Audit Logs allows you to view control-plane operational logs in your Azure subscription. The Power BI Azure Audit Logs content pack can help you easily analyze and visualize the wealth of information contained in these logs. The content pack allows you to connect to your data and begin to discover insights with the out-of-the box dashboard and reports. Read our [blog](#) and [online documentation](#)for more information.

[Learn more in our blog.](#)

September 22, 2015

- Have more flexibility on your dashboard to customize your dashboards with additional tile sizes, ranging from 1x1 to 5x5.
- You can now [share \(and un-share\) a dashboard from your group space](#) exactly the way you would do it in your own space. Once colleagues accept your sharing invitation, the shared dashboard (and their associated reports) will be added in their own space with read-only permission.
- We added 5 additional [industry related samples](#) to Power BI: Customer Profitability, Human Resources, Opportunity Analysis, Procurement Analysis, and Sales and Marketing Sample.
- Stripe is an advanced payment platform for online businesses. From start-ups to Fortune 500 companies, thousands of businesses use Stripe to accept payments in over 130 currencies, from anyone in the world. By connecting Power BI with your existing Stripe account, you'll be able to [use the Power BI Stripe content pack to monitor, explore, and visualize your Stripe activity](#).

[Learn more in our blog.](#)

September 15, 2015

- You can now choose which dashboard you want to pin your visual to! You can choose the target dashboard from your existing dashboards, or even create a new dashboard and pin the visual to it in one shot.
- Additionally, you can control your visual colors in the dashboard. If your report is using a different theme from the dashboard theme, you can control whether the visual retains current theme, or uses the default dashboard theme to achieve consistency across visuals from various sources.
- You can now simply pin the tile from one dashboard to another, the same way you would pin a report visual to a dashboard.
- If your 60-day Power BI Pro trial period is close to expiration, you can

[contact us](#) to request an extension to your trial. If approved, your trial will be extended for another 60 days.

- comScore Digital Analytix is an online solution that provides insights into your user base through the best of analytics and audience demographics. With the Power BI comScore content pack, you can quickly connect and begin gaining insights into your web analytics data. This content pack includes an out-of-the box dashboard, a set of reports, and a curated data set to help you explore and drill into your data. Learn more about the content pack in our [blog](#) and [help topic](#).

September 8, 2015

- Friendly Hyperlinks now allow you to provide links for your users without needing to display the entire URL in the textbox.
- Drill Support has been added to Power BI Reports. You can create a Drill path that enables users to navigate from one level of data to related data.
- Two new Industry Related Samples, It Spend Analysis and Supplier Quality Analysis, have been added under the samples section of the Get Data experience. These samples are great examples of how you can use your data to create insightful reports and dashboards.
- We have a new content pack for tyGraph, which allows you to easily gain deeper insights into your Yammer data. The content pack includes a dashboard, a set of reports and a curated dataset to explore and provide insights such as the Measure of Active Engagement (The MAE Score) and content consumption metrics such as File Views and File Downloads. Learn more on our [blog](#) and [help topic](#).

September 1, 2015

- Webtrends helps companies make sense of their customer data to drive digital marketing success. Users have the ability to observe, analyze and deliver insights on the visitor journey across web, social, mobile and SharePoint channels. With the release of [the Webtrends content pack](#), users will now have the ability to use Power BI to monitor, analyze, and visualize their Webtrends analytics data. The Webtrends content pack for Power BI [help page](#) has more information.
- Getting started with Q&A is even simpler. The moment you put your cursor inside the Q&A text box, we instantly display a list of questions and key metrics that are relevant to your data. In the drop down, by default, you will see the questions for tiles already pinned to the dashboard as well as an entry for each table you have in your dataset.
- The dynamic canvas size we display by default renders all our report items with optimal dimensions for the browser window size. If you want to lock in the aspect ratio, or want to fit your report in a different way, we now support another three options for you: Fit to Page, Fit to Width, and Actual Size.
- We also increased the limit on the number of datasets and reports you can have. You can now have up to 200 datasets and 200 reports for each dataset in your Power BI account.

August 18, 2015

- Azure Mobile Engagement is an app analytics service that allows developers to track their application's performance helping them increase retention and app usage. Using the [Power BI Azure Mobile Engagement content pack](#) you can quickly connect to an out-of-box dashboard, a set of reports and a curated data set, and instantly get insights into how well your app is doing. Please see the [Azure Mobile Engagement content pack for Power BI help page](#) for more information.

August 11, 2015

- Mandrill is an email infrastructure service developed by MailChimp that lets you analyze your email campaigns from a wide variety of information. With the [Power BI Mandrill content pack](#), you can quickly connect to your Mandrill data and immediately gain insights into your newsletter or marketing campaign. For additional details on how to get started, please see the [Mandrill content pack for Power BI help page](#).

August 4, 2015

- Power BI now offers [Circuit ID](#) users the ability to track and monitor all their Circuit ID cloud communications services, empowering them to make the right business decisions. For additional details on how to get started, please see the [Circuit ID content pack for Power BI help page](#).
- Today we've released an enhancement to the Share Dashboard feature to make it even easier to use. If your organization uses Office 365 for email, you can now [share to an email distribution group](#) just the same way you would send an email in Outlook. Just enter the address of the distribution group and click Share. All members of the distribution group will receive an email invitation to view the dashboard.

July 28, 2015

- We're excited to announce that this week's update to Power BI now offers database performance tracking with the [SQL Sentry content pack](#). This content pack includes a dashboard and reports that help you monitor the SQL Server deployments you track using the SQL Sentry Cloud. For additional details on how to get started, please see the [SQL Sentry content pack for Power BI help page](#).

July 24, 2015

- We're excited to announce our "general availability" (GA) release of Power BI. Sign up today for [Power BI Pro](#). As part of the GA release, we are offering some great new features:
- A new visualization and report creation experience: The new reporting canvas has a larger selection of visualizations, more control over formatting of titles, legends, axes, colors, backgrounds, and more.
- [Power BI groups](#): groups offer a powerful collaborative experience built on Office 365 groups.
- [Organizational content packs](#): Power BI makes creating dashboards and reports extremely simple, and now users can publish this content to the organizational content gallery.
- [Bring in whole Excel files](#): You can bring any Excel workbook stored on OneDrive for Business into Power BI and view the entire workbook, exactly as you would in Excel Online.

- **Bring in CSV files:** Just like Excel or Power BI Desktop file, a comma-separated values text (CSV) file can also be a dataset for your Power BI dashboards and reports.
- Replace Excel, Power BI Desktop, and CSV files: you can upload an updated version of a file to Power BI and it will replace the existing dataset. All the reports and dashboards that are connected to this dataset now automatically use the new version.
- We're excited to announce that this week's update to Power BI now offers work item tracking in [the Visual Studio Online content pack](#). This update includes a new dashboard, report and an updated data set offering insights on your work items in addition to important metrics about your Git repository, pull requests, and version control content included in the initial version. For additional details on how to get started, please see [the Visual Studio Online content pack for Power BI help page](#).

July 14, 2015

- Acumatica Cloud ERP delivers a suite of fully integrated business management applications such as Financials, Distribution, CRM and Project Accounting, powered by a robust and flexible platform. With the Power BI [Acumatica content pack](#), you can quickly connect and immediately gain insights into your opportunity data. This content includes an out-of-box dashboard, a set of reports and a curated dataset to explore and provide details such as your total won opportunities by date. Read more [here](#).
- [Azure HDInsight](#) now offers a fully managed Spark service. This capability allows for scenarios such as iterative machine learning and interactive data analysis. Power BI allows you to directly connect to the data in Spark on HDInsight offering simple and live exploration. Read our [help doc](#) for more information.
- [Office 365 navigation and application launcher integration](#). With a single click, you can now navigate to all of your Office 365 applications.
- [Specifying a custom URL](#) that users navigate to when they click a tile. You now have the ability to control exactly where users go: a specific report, another dashboard, an SSRS report, or an external website.
- [Visibility and management of the storage](#) you are consuming in Power BI
- [Configuring the visual and fields displayed in Q&A](#)

July 7, 2015

- One of the most awaited and requested feature is now available in Power BI. Starting today, in Power BI you can [refresh datasets](#) connecting to your on-premises sources such as SQL Server. You can refresh a dataset that has been created from a Power BI Designer file or an Excel workbook with data imported into the workbook using Power Query or Power Pivot.

June 30, 2015

- We released a new [Power BI UserVoice content pack](#) that can help you monitor and visualize your UserVoice data and immediately gain insights into it with the ready-to-use dashboard and report.

June 23, 2015

- Power BI Desktop files can be [refreshed](#) (scheduled refresh & refresh now)

when uploaded to the Power BI service.

- We are releasing the biggest visual change to Power BI since December: a cleaner and simpler experience to [Get Data](#). When you click on Get Data, you are now presented a single screen with a set of categories to choose from. This will make it even easier to find the content that matters to you.
- [Azure SQL Data Warehouse](#) offers elastic scale and massive parallel processing. With the limited public preview announced today, Power BI allows you to directly connect to the data stored in your Azure SQL Data Warehouse offering simple and dynamic exploration. After creating a connection to your data warehouse, queries are generated in real time and sent back to the source as you explore the data. This removes the need to create and upload a custom data model and offers interactive exploration of your data.

June 16, 2015

- SweetIQ lets you easily track your local listings by providing location and review data from your local search ecosystem. Power BI allows you to analyze and monitor that data, by offering [out of box content](#) built from your SweetIQ data. For additional details on how to get started, please see the SweetIQ content pack for Power BI [help page](#).

June 2, 2015

- Now tracking important statistics about your apps is easy with Power BI and the [appFigures content pack](#). For additional details on how to connect and get started, see the [documentation](#) for appFigures content pack for Power BI.

May 28, 2015

- Get quick insights into your QuickBooks Online account data using our [content pack](#). For additional details on how to connect and get started, see the QuickBooks Online content pack for Power BI [documentation](#).

May 13, 2015

- You can connect directly to data stored in your [Azure SQL Database](#). We dynamically generate and send down queries to the source, allowing you to create interactive reports directly over your database. You can read the [blog post](#) and [documentation](#) for more information.

May 7, 2015

- We updated our look to a new modern design, a look that is fresh and distinctive while keeping your focus on what matters: your data and your insights.

April 28, 2015

- Power BI is now available in 44 languages. Read our [blog post](#) to see the full list.

April 23, 2015

- You can now visualize and explore your [Microsoft Dynamics Marketing](#) data with our new content pack! You can read our [blog post](#) for more

information.

April 15, 2015

- You can now visualize and explore your **Google Analytics** data with our new content pack! With the Google Analytics content pack you will get a dashboard, report and dataset that allow you to gain insights into the usage of your site in the last 6 months. You can read [our blog post](#).
- You can now pin all cards expect those containing KPIs and Images from Q&A and reports
- You can now use cards in Q&A by using the phrase 'as card' at the end of your query

March 31, 2015

- **Github** dashboards have new visuals that focus on community building, improved calculations, and improved layout
- **SendGrid** dashboards have new visuals and a new layout to help you find better insights
- You can now use **treemaps** in Q&A by using the phrase 'as treemap' at the end of your query
- You can now pin **treemaps** from Q&A and reports
- Lots of bug fixes!

February 25, 2015

- Bug fixes and improvements to user experience and reliability.

January 26, 2015

- Service usability and reliability have been improved through various bug fixes.

2014

December 11, 2014

- Reliability of refresh with OneDrive has been improved. Some situations where workbooks were not refreshing from OneDrive have been resolved.

Next steps

[What is Power BI?](#)

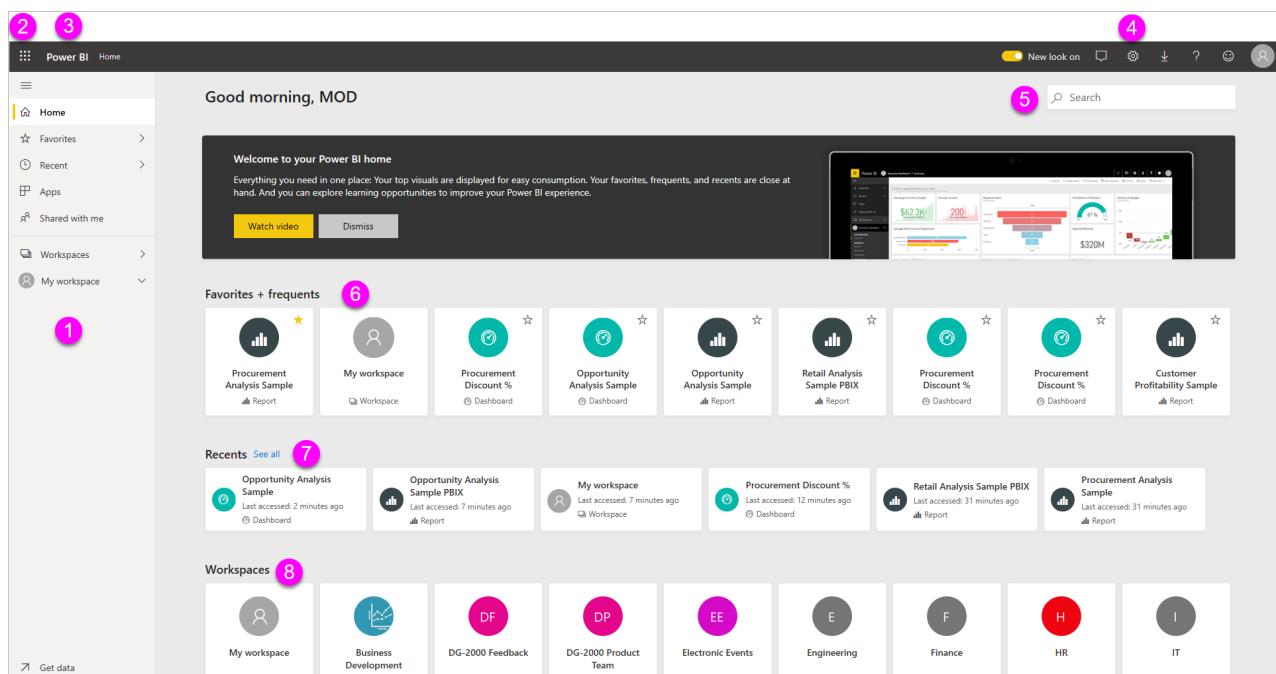
More questions? Try asking the [Power BI Community](#)

Basic concepts for designers in the Power BI service

13 minutes to read • [Edit online](#)

The aim of this article is to orient you to the Power BI service: what the different elements are, how they work together, and how you can work with them. You may get more out of it if you've already [signed up for the Power BI service](#) and [added some data](#). As a designer, your typical workflow is usually to start by creating reports in Power BI Desktop. Then you publish them to the Power BI service, where you can continue modifying them. You also create the dashboards based on your reports in the Power BI service.

For this article, if you don't have your own reports yet try installing a [Power BI sample content pack](#).



When you open the Power BI service in a browser, you start at your Home screen. Here are the elements you may see:

1. Navigation pane
2. Office 365 app launcher
3. Power BI home button
4. Icon buttons, including settings, help, and feedback
5. Search box
6. Favorite and frequent dashboards, reports, and workspaces
7. Recent dashboards, reports, and workspaces
8. Your workspaces

You and the end users for your reports and dashboards have the same start experience in the Power BI service in a browser.

We'll dig into these features later, but first let's review some Power BI concepts. Or you might want to watch this video first. In the video, will

reviews the basic concepts and gives a tour of the Power BI service.

<https://www.youtube.com/embed/B2vd4MQrz4M>

Power BI concepts

The five major building blocks of Power BI are: *dashboards*, *reports*, *workbooks*, *datasets*, and *dataflows*. They're all organized into *workspaces*, and they're created on *capacities*. It's important to understand capacities and workspaces before we dig into the five building blocks, so let's start there.

Capacities

Capacities are a core Power BI concept representing a set of resources (storage, processor, and memory) used to host and deliver your Power BI content. Capacities are either *shared* or *dedicated*. A shared capacity is shared with other Microsoft customers, while a dedicated capacity is fully committed to a single customer. Dedicated capacities require a [subscription](#), and are fully described in the [Managing Premium capacities](#) article.

By default, workspaces are created on a shared capacity. In shared capacity, workloads run on computational resources shared with other customers. As the capacity must share resources, limitations are imposed to ensure "fair play", such as the maximum model size (1 GB) and maximum daily refresh frequency (eight times per day).

Workspaces

Workspaces are created on capacities. Essentially, they are containers for dashboards, reports, workbooks, datasets, and dataflows in Power BI.

There are two types of workspaces: *My workspace* and *workspaces*.

- *My workspace* is the personal workspace for any Power BI customer to work with your own content. Only you have access to your My workspace. You can share dashboards and reports from your My Workspace. If you want to collaborate on dashboards and reports, or create an app, then you want to work in a workspace.
- *Workspaces* are used to collaborate and share content with colleagues. You can add colleagues to your workspaces and collaborate on dashboards, reports, workbooks, and datasets. With one exception, all workspace members need Power BI Pro licenses. Read more about the [new workspaces](#).

Workspaces are also the places where you create, publish, and manage *apps* for your organization. Think of workspaces as staging areas and containers for the content that will make up a Power BI app. So what is an *app*? It's a collection of dashboards and reports built to deliver key metrics to the Power BI consumers in your organization. Apps are interactive, but consumers can't edit them. App consumers, the colleagues who have access to the apps, don't necessarily need Pro licenses.

To learn more about sharing in general, start with [Ways to share dashboards your work](#).

Now, on to the five Power BI building blocks.

Dataflows

A *dataflow* helps organizations to unify data from disparate sources. They are optional, and are often used in complex or larger projects. They represent data prepared and staged for use by datasets. However, they can't be used directly as a source for reporting. They leverage the extensive collection of Microsoft data connectors, enabling the ingestion of data from on-premises and cloud-based data sources.

Dataflows are only created and managed in workspaces (but not *My Workspace*), and they are stored as entities in the Common Data Model (CDM) in Azure Data Lake Storage Gen2. Typically, they're scheduled to refresh on a recurring basis to store up-to-date data. They're great for preparing data for use—and potential re-use—by your datasets. For more information, see the [Self-service data prep in Power BI](#) article.

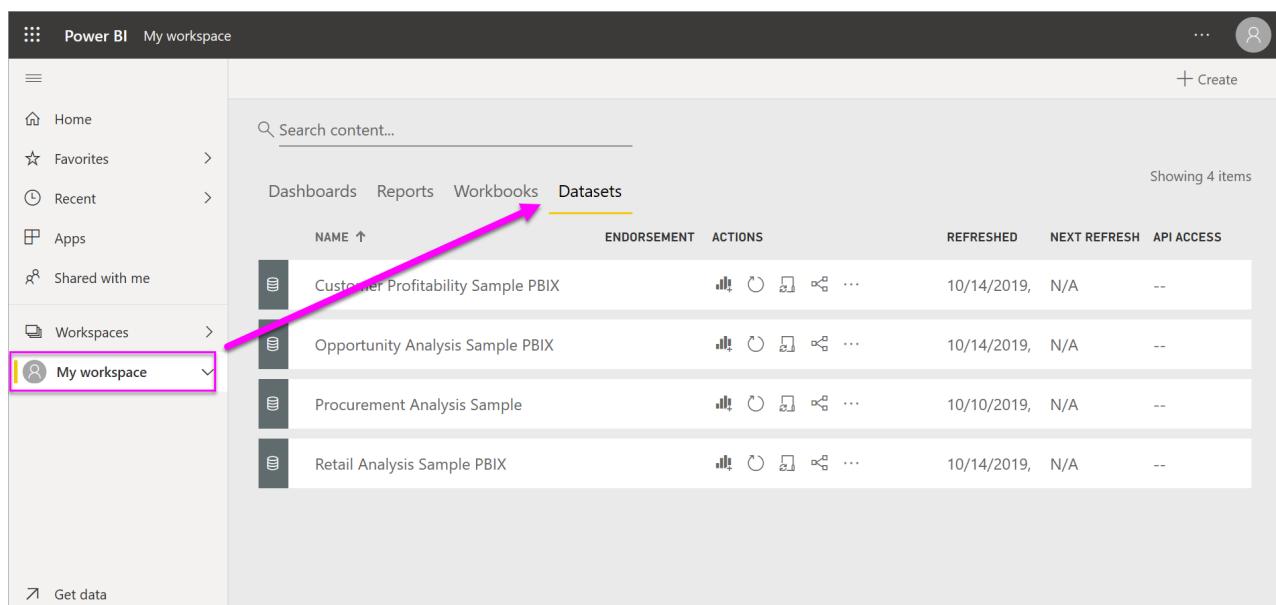
You can't have dashboards or reports without data (well, you can have empty dashboards and empty reports, but they're not useful until they have data), so let's now introduce datasets.

Datasets

A *dataset* is a collection of data that you *import* or *connect* to. Power BI lets you connect to and import all sorts of datasets and bring all of it together in one place. Datasets can also source data from dataflows.

Datasets are associated with *workspaces* and a single dataset can be part of many workspaces. When you open a workspace, the associated datasets are listed under the **Datasets** tab. Each listed dataset represents a single source of data, for example, an Excel workbook on OneDrive, or an on-premises SSAS tabular dataset, or a Salesforce dataset. There are many different data sources supported, and we're adding new ones all the time. See the list of [dataset types that you can use with Power BI](#).

In the example below, I've selected the "Sales and marketing" workspace and clicked the tab for **Datasets**.



The screenshot shows the Power BI workspace interface. On the left, there is a navigation sidebar with options like Home, Favorites, Recent, Apps, Shared with me, Workspaces (which is currently selected and highlighted in pink), and My workspace (which is also highlighted in pink). Below these are Get data and Help & feedback. The main area is titled "Power BI My workspace". It features a search bar labeled "Search content...". Below the search bar are tabs for Dashboards, Reports, Workbooks, and Datasets, with the Datasets tab being the active one (indicated by a yellow arrow). A table lists four datasets: Customer Profitability Sample PBIX, Opportunity Analysis Sample PBIX, Procurement Analysis Sample, and Retail Analysis Sample PBIX. Each dataset row includes columns for Name, Endorsement, Actions, Refreshed, Next Refresh, and API Access. A pink arrow points from the "Workspaces" button in the sidebar to the "Datasets" tab in the main content area.

NAME ↑	ENDORSEMENT	ACTIONS	REFRESHED	NEXT REFRESH	API ACCESS
Customer Profitability Sample PBIX		⋮ ⚙️ ⚡ ⚡ ⚡ ⋮	10/14/2019, N/A	--	--
Opportunity Analysis Sample PBIX		⋮ ⚙️ ⚡ ⚡ ⚡ ⋮	10/14/2019, N/A	--	--
Procurement Analysis Sample		⋮ ⚙️ ⚡ ⚡ ⚡ ⋮	10/10/2019, N/A	--	--
Retail Analysis Sample PBIX		⋮ ⚙️ ⚡ ⚡ ⚡ ⋮	10/14/2019, N/A	--	--

ONE dataset...

- can be used over and over in one or in many workspaces.
- can be used in many different reports.
- Visualizations from that one dataset can display on many different dashboards.



To [connect to or import a dataset](#), select **Get Data** at the bottom of the nav pane. Follow the instructions to connect to or import the specific source and add the dataset to the active workspace. New datasets are marked with a yellow asterisk. The work you do in Power BI doesn't change the underlying dataset.

Datasets added by one workspace member are available to the other workspace members with an *admin*, *member*, or *contributor* role.

Datasets can be refreshed, renamed, explored, and removed. Use a dataset to create a report from scratch or by running [quick insights](#). To see which reports and dashboards are already using a dataset, select **View related**. To explore a dataset, select it. What you're actually doing is opening the dataset in the report editor where you can really start exploring into the data by creating visualizations.

Now, let's move on to the next topic—reports.

Dig deeper

- [Datasets in the Power BI service](#)
- [Dataset modes in the Power BI service](#)
- [What is Power BI Premium?](#)
- [Get data for Power BI](#)
- [Sample datasets for Power BI](#)

Reports

A Power BI report is one or more pages of visualizations such as line charts, maps, and treemaps. Visualizations are also called *visuals*. All of the visualizations in a report come from a single dataset. You can create reports from scratch within Power BI, import them with dashboards that colleagues share with you, or Power BI can create them when you connect to datasets from Excel, Power BI Desktop, databases, and SaaS applications. For example, when you connect to an Excel workbook that contains Power View sheets, Power BI creates a report based on those sheets. And when you connect to an SaaS application, Power BI imports a pre-built report.

There are two modes to view and interact with reports: *Reading view* and *Editing view*. When you open a report, it opens in Reading view. If you have edit permissions, then you see **Edit report** in the upper-left corner, and you can view the report in Editing view. If a report is in a workspace, everyone with an *admin*, *member*, or *contributor* role can edit it. They have access to all the exploring, designing, building, and sharing capabilities of Editing view for

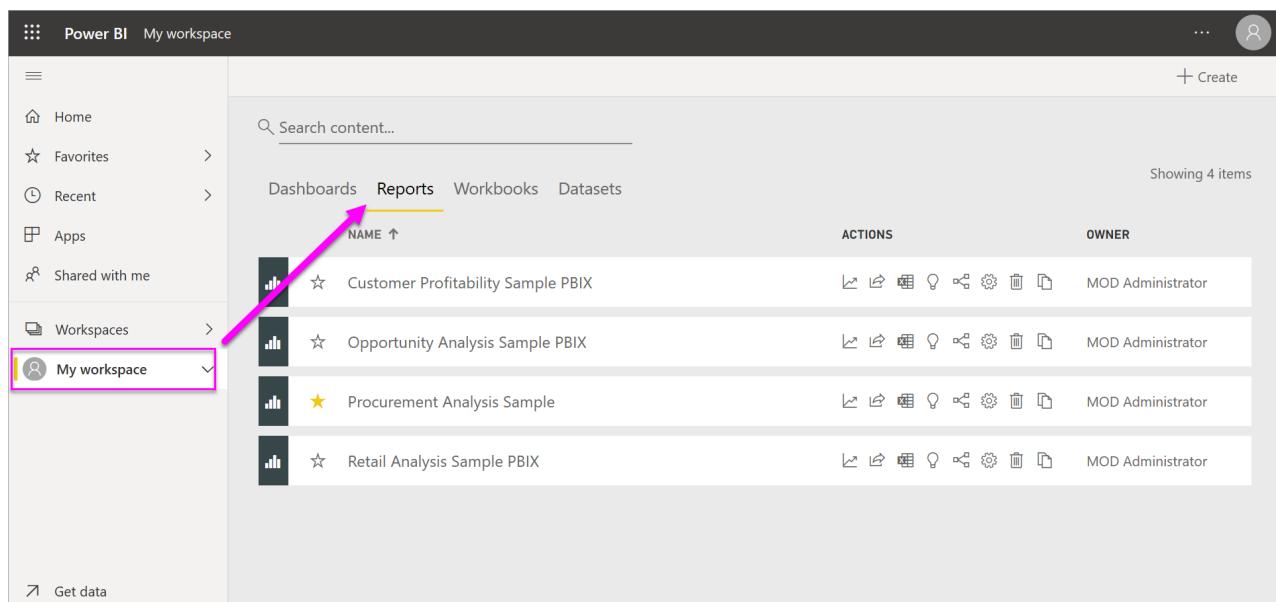
that report. The people they share the report with can explore and interact with the report in Reading view.

When you open a workspace, the associated reports are listed under the **Reports** tab. Each listed report represents one or more pages of visualizations based on only one of the underlying datasets. To open a report, select it.

When you open an app, you're presented with a dashboard. To access an underlying report, select a dashboard tile (more on tiles later) that was pinned from a report. Keep in mind that not all tiles are pinned from reports, so you may have to click a few tiles to find a report.

By default, the report opens in Reading view. Just select **Edit report** to open it in Editing view (if you have the necessary permissions).

In the example below, I selected the "Sales and marketing" workspace and clicked the tab for **Reports**.

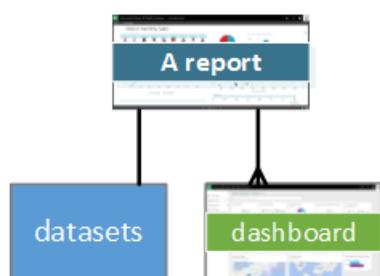


The screenshot shows the Power BI service interface. On the left, there's a navigation sidebar with options like Home, Favorites, Recent, Apps, Workspaces, and My workspace (which is highlighted with a yellow box). Below that is a Get data section. The main area is titled 'Power BI My workspace' and has a search bar. It displays four items under the 'Reports' tab, with a yellow arrow pointing to the 'Reports' tab itself. The items are: Customer Profitability Sample PBIX, Opportunity Analysis Sample PBIX, Procurement Analysis Sample, and Retail Analysis Sample PBIX. Each item has a preview thumbnail, a star icon, and a 'NAME ↑' column header. To the right of the preview are 'ACTIONS' and 'OWNER' columns.

	NAME ↑	ACTIONS	OWNER
Customer Profitability Sample PBIX	Customer Profitability Sample PBIX	[Actions icons]	MOD Administrator
Opportunity Analysis Sample PBIX	Opportunity Analysis Sample PBIX	[Actions icons]	MOD Administrator
Procurement Analysis Sample	Procurement Analysis Sample	[Actions icons]	MOD Administrator
Retail Analysis Sample PBIX	Retail Analysis Sample PBIX	[Actions icons]	MOD Administrator

ONE report...

- is contained in a single workspace.
- can be associated with multiple dashboards within that workspace. Tiles pinned from that one report can appear on multiple dashboards.
- can be created using data from one dataset. Power BI Desktop can combine more than one data source into a single dataset in a report, and that report can be imported into Power BI.



Dig deeper

- [Create a report in the Power BI service by importing a dataset](#)
- [Optimize reports for the Power BI mobile apps](#)

Dashboards

A **dashboard** is something you create in the Power BI service or something a colleague creates in the Power BI service and shares with you. It is a single canvas that contains zero or more tiles and widgets. Each tile pinned from a report or from Q&A displays a single **visualization** that was created from a dataset and pinned to the dashboard. Entire report pages can also be pinned to a dashboard as a single tile. There are many ways to add tiles to your dashboard; too many to be covered in this overview topic. To learn more, see [Dashboard tiles in Power BI](#).

Why do people create dashboards? Here are just some of the reasons:

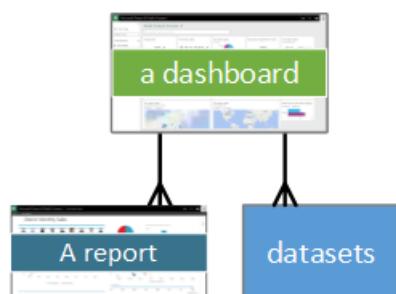
- to see, in one glance, all the information needed to make decisions.
- to monitor the most-important information about your business.
- to ensure all colleagues are on the same page, viewing and using the same information.
- to monitor the health of a business or product or business unit or marketing campaign, etc.
- to create a personalized view of a larger dashboard -- all the metrics that matter to you.

When you open a workspace, the associated dashboards are listed under the **Dashboards** tab. To open a dashboard, select it. When you open an app, you'll be presented with a dashboard. Each dashboard represents a customized view of some subset of the underlying dataset(s). If you own the dashboard, you'll also have edit access to the underlying dataset(s) and reports. If the dashboard was shared with you, you'll be able to interact with the dashboard and any underlying reports, but will not be able to save any changes.

There are many different ways that you, or a colleague, can [share a dashboard](#). Power BI Pro is required for sharing a dashboard and may be required for viewing a shared dashboard.

ONE dashboard...

- is associated with a single workspace
- can display visualizations from many different datasets
- can display visualizations from many different reports
- can display visualizations pinned from other tools (for example, Excel)



Dig deeper

- [Create a blank dashboard and then get some data](#) .
- [Duplicate a dashboard](#)

- Create a phone view of a dashboard

Workbooks

Workbooks are a special type of dataset. If you've read the [Datasets](#) section above, you know almost all you need to know about workbooks. But you may be wondering why sometimes Power BI classifies an Excel workbook as a [Dataset](#) and other times as a [Workbook](#).

When you use [Get data with Excel files](#), you have the option to [Import](#) or [Connect](#) to the file. When you choose Connect, your workbook will appear in Power BI just like it would in Excel Online. But, unlike Excel Online, you'll have some great features to help you pin elements from your worksheets right to your dashboards.

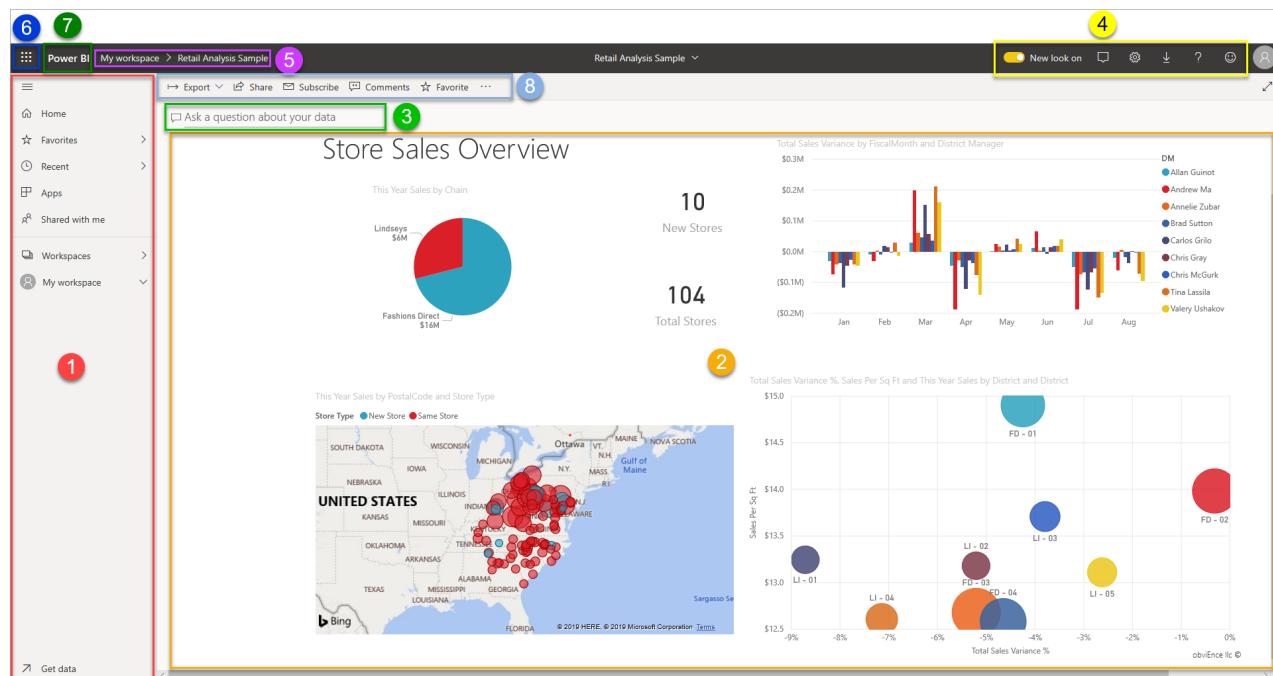
You can't edit your workbook in Power BI. But if you need to make some changes, you can click [Edit](#), and then choose to edit your workbook in Excel Online or open it in Excel on your computer. Any changes you make are saved to the workbook on OneDrive.

Dig deeper

- [Get data from Excel workbook files](#)
- [Publish to Power BI from Excel](#)

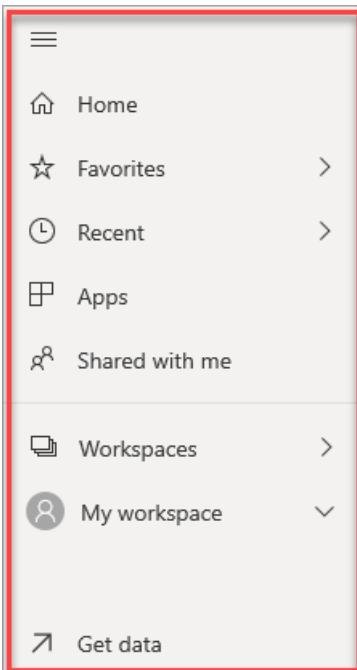
A dashboard in My Workspace

We've covered workspaces and building blocks. Let's bring it together and review the pieces that make up the dashboard experience in the Power BI service.



1. Navigation pane

Use the nav pane to locate and move between your workspaces and the Power BI building blocks: dashboards, reports, workbooks, and datasets.



- Select **Get Data** to [add datasets, reports, and dashboards to Power BI](#).



- Expand and collapse the nav pane with this icon .
- Open or manage your favorite content by selecting **Favorites**.
- View and open your most-recently visited content by selecting **Recent**.
- View, open, or delete an app by selecting **Apps**.
- Did a colleague share content with you? Select **Shared with me** to search and sort that content to find what you need.
- Display and open your workspaces by selecting **Workspaces**.

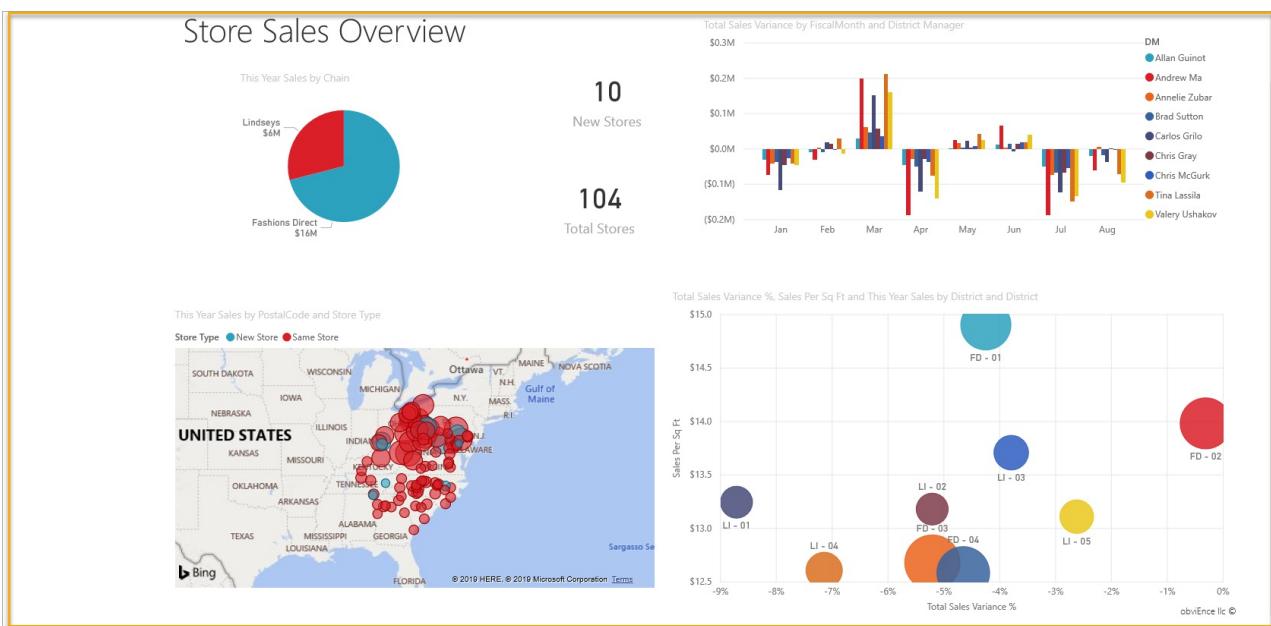
Single-click these elements:

- an icon or heading to open in content view
- a right arrow (>) to open a flyout menu for Favorites, Recent, and Workspaces.
- a chevron icon to display the **My Workspace** scrollable list of dashboards, reports, workbooks, and datasets.

2. Canvas

Because we've opened a dashboard, the canvas area displays visualization tiles. If for example, we had opened the report editor, the canvas area would display a report page.

Dashboards are composed of **tiles**. Tiles are created in report Editing view, Q&A, other dashboards, and can be pinned from Excel, SSRS, and more. A special type of tile called a **widget** is added directly onto the dashboard. The tiles that appear on a dashboard were specifically put there by a report creator/owner. The act of adding a tile to a dashboard is called *pinning*.

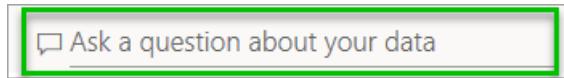


For more information, see [Dashboards](#) (above).

3. Q&A question box

One way to explore your data is to ask a question and let Power BI Q&A give you an answer, in the form of a visualization. Q&A can be used to add content to a dashboard or report.

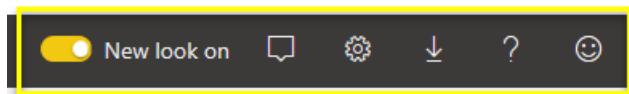
Q&A looks for an answer in the dataset(s) connected to the dashboard. A connected dataset is one that has at least one tile pinned to that dashboard.



As soon as you start to type your question, Q&A takes you to the Q&A page. As you type, Q&A helps you ask the right question and find the best answer with rephrasings, autofill, suggestions, and more. When you have a visualization (answer) you like, pin it to your dashboard. For more information, see [Q&A in Power BI](#).

4. Icons in the black header bar

The icons in the upper right corner are your resource for settings, notifications, downloads, getting help, turning the **New look** on or off, and providing feedback to the Power BI team.



5. Dashboard title (navigation path, or breadcrumbs)

It's not always easy to figure out which workspace and dashboard are active, so Power BI creates a navigation path for you. In this example, we see the workspace (My workspace) and the dashboard title (Retail Analysis Sample). If we opened a report, the name of the report would be appended to the end of the navigation path. Each section of the path is an active hyperlink.

Notice the "C" icon after the dashboard title. This dashboard has a [data classification tag](#) of "confidential." The tag identifies the sensitivity and security level of the data. If your Admin has turned on data classification, every dashboard will have a default tag set. Dashboard owners should change the

tag to match their dashboard's proper security level.

My workspace > Retail Analysis Sample

6. Office 365 app launcher

With the app launcher, all your Office 365 apps are easily available with one click. From here, you can quickly launch your email, documents, calendar, and more.



7. Power BI home

Selecting Power BI brings you back to your Power BI home.



8. Labeled icons in the gray menu bar

This area of the screen contains additional options for interacting with the content (in this case, with the dashboard). Besides the labeled icons you can see, selecting the More options (...) reveals options for duplicating, printing, refreshing the dashboard and more.



Next steps

- [What is Power BI?](#)
- [Power BI videos](#)
- [Report editor - take a tour](#)
- More questions? [Try asking the Power BI Community](#)

10 tips for getting help with your Power BI questions

3 minutes to read • [Edit online](#)

Do you ever get frustrated using Power BI, or struggle because you can't get answers to your Power BI questions when you need them -- i.e. "just-in-time"?

Here are 10 tips that Power BI experts (including people who work on the product at Microsoft) commonly follow to find answers to their Power BI questions.

1 Use a search engine

Experts who need answers for Power BI often use search. Want to find a DAX formula for a common business calculation? You can find this on the internet. Bookmark where you find the best answers. Create a folder for yourself on tips and answers you find.

2 Check the Power BI documentation

The Power BI team is continually updating and improving the Power BI documentation and training. You can find great content including recordings of webinars, white papers, guided learning, and links to blog posts on all the latest features.

3 Read the Power BI blog for the latest news

The Power BI team explains all the new features in their regular [Power BI blog posts](#). Find out what's new in everything from Power BI Desktop to the Power BI mobile apps. Make a habit of returning often to see what's new: Take a few minutes each week to scan the blogs. You never know when you'll benefit from that bit of information you noticed months ago.

4 Try Twitter

Lots of Power BI customers and experts are on Twitter. Ask your question in a tweet. Add the hashtags #powerbi and #powerbihelp so the people who know will see your tweet.

5 Watch videos on YouTube

Do videos fit your learning style better? Power BI has two sets you'll be interested in:

- A good place to start is the [Analyze and Visualize data with Power BI playlist](#).
- Then try the [Power BI channel](#) for a much bigger selection.
- If you have more experience with Power BI, the [Guy in a Cube YouTube channel](#) might be a better fit for you.

6 Attend training

The training options available to you are nearly endless, from in-person lab training to short videos.

- [Guided Learning](#) on the Power BI site.
- [Free Power BI webinars](#), live and on-demand, on the Power BI site.

You can find additional options online, such as:

- [edx.org](#) offers a free course, [Analyzing and Visualizing Data with Power BI](#).
- [Lynda.com](#) offers has courses such as [Power BI Pro Essential Training](#).
- Look for in-person "Dashboard in a Day" training sessions.

7 Ask or search in the Power BI community

Ask questions and find answers in the [Power BI community](#). BI experts around the world are active in the community. Make sure to benefit from their knowledge by using this resource.

8 Join or create a Power BI user group

Join a [Power BI user group](#) and ask your group for help in answering your questions. Or you start your own user group and create a community of people who help each other out, focused on your needs: in your area, for your data, in your time zone.

9 Check the service status

If you're having an issue with the service, it may be that the service itself is having issues. [Check the Support page](#) for any reports.

10 Just try it

If all else fails, the final tip is to observe the system. Often, people ask what capabilities Power BI has. You can often answer this type of question by going into the Power BI service or Power BI Desktop, looking at the options in the user interface, and then trying to use them.

For example, say you're wondering if you can share dashboards with a security group. To answer that question, go to the sharing dialog box and try adding a security group. Either way, you'll have your answer after this test.

Next steps

- [What is Power BI?](#)
- Try asking the [Power BI Community](#)
- Still have an issue? Please visit the [Power BI support page](#)

Sign up for Power BI as an individual

4 minutes to read • [Edit online](#)

Power BI can be your personal data analysis and visualization tool, and can also serve as the analytics and decision engine behind group projects, divisions, or entire corporations. This article explains how to sign up for Power BI as an individual. If you're a Power BI admin, see [Power BI Licensing in your organization](#).



Supported email addresses

Before you start the sign-up process, it's important to learn which types of email addresses that you can use to sign-up for Power BI:

- Power BI requires that you use a work or school email address to sign up. You can't sign up using email addresses provided by consumer email services or telecommunication providers. This includes outlook.com, hotmail.com, gmail.com, and others.
- After you sign up, you can [invite guest users](#) to see your Power BI content with any email address, including personal accounts.
- You can sign-up for Power BI with .gov or .mil addresses, but this requires a different process. For more info, see [Enroll your US Government organization in the Power BI service](#).

Sign up for a Power BI account

Follow these steps to sign up for a Power BI account. Once you complete this process you will have a Power BI (free) license which you can use to try Power BI on your own using My Workspace, consume content from a Power BI workspace assigned to a Power BI Premium capacity or initiate an individual Power BI Pro Trial. For more information, see [Power BI features by license type](#).

1. Go to the [sign-up page](#).
2. Enter your email address then select **Sign up**.

Get started

Sign up 

3. If you get a message like this one, choose an option to receive a verification code, then continue to the next step in this procedure.

Prove. You're. Not. A. Robot.

Text me Call me

(+1)

We don't save this phone number or use it for any other purpose.

Text me 

If you get a message like this one, finish the steps to sign in and use Power BI.

You have an account with us

You're using adam@contoso.com with another Microsoft service already. To finish signing up for Microsoft Power BI, sign in with your existing password.

Sign in 

4. Enter the code that you received then select **Sign up**.

Prove. You're. Not. A. Robot.

Didn't get it or need a new code? Try again

Sign up 

5. Check your email for a message like this one.

Here's your verification code

To finish signing up for Microsoft Power BI, enter the code on the signup page.

Because you're signing up with a work email address, your employer may control your communications and data. Their policies apply to your use of the service.

475743

Don't want to sign up? Just ignore this email. Thanks.



6. On the next screen, enter your information and the verification code from the email. Select a region, review the policies that are linked from this screen, then select Start.

Create your account

Alex Wilber

.....

.....

We sent a verification code to alex@contoso.com. Enter the code to complete signup.

475743 [resend signup code](#)

United States ▾

[Not seeing your country or region?](#)

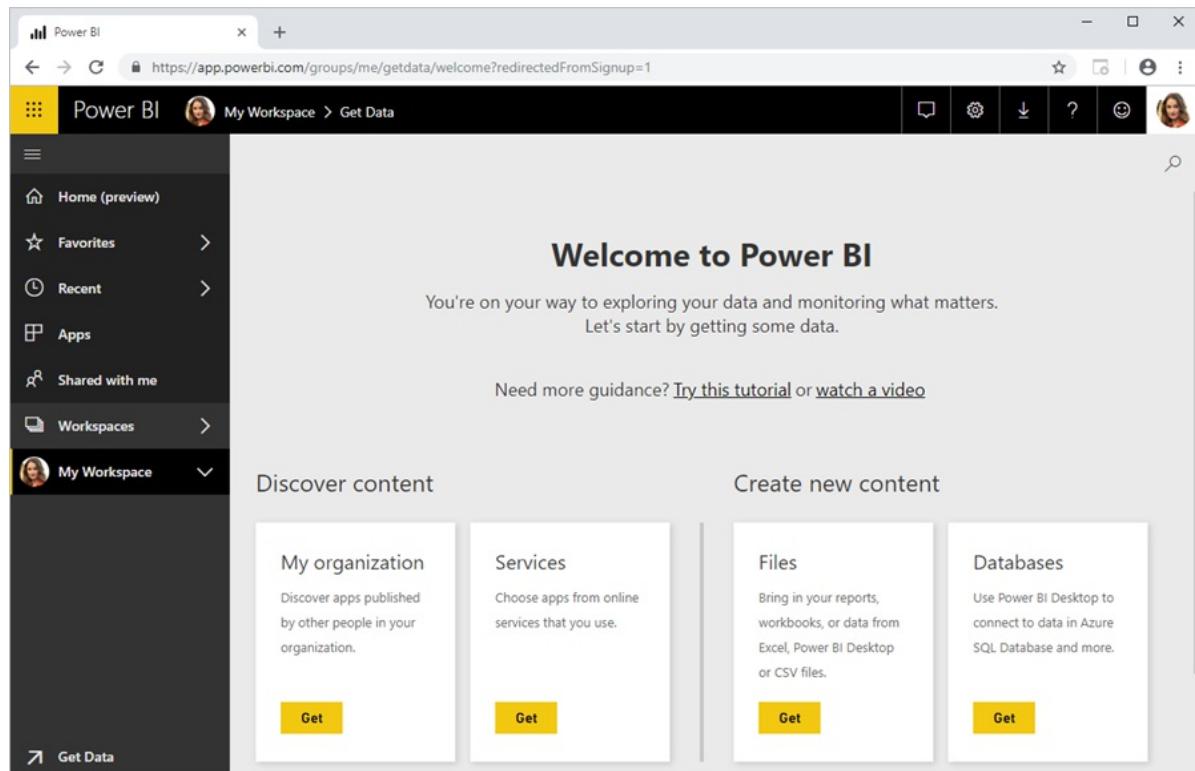
Microsoft will send you promotions and offers about Microsoft products and services for businesses. You can unsubscribe anytime.

When using an organization email address (e.g. an employer or school), the administrator of your organization may assume control over your account and data. [Learn more](#).

By choosing Start, you agree to our [terms and conditions](#) and understand that your name, email address, and trial organization name will be visible to other people in your institution. [Microsoft Privacy Policy](#)

Start ↗

7. You're then taken to [Power BI sign in page](#), and you can begin using Power BI.



Trial expiration

After you complete the sign up process, you can sign up for a Power BI Pro trial in the Power BI service. When that trial expires, your license changes back to a Power BI (free) license. After this happens, you no longer have access to features that require a Power BI Pro license. For more information, see [Features by license type](#).

If a Power BI (free) license is sufficient, you don't have to do anything else. To take advantage of Power BI Pro features, contact your IT admin about purchasing a Power BI Pro license.

Troubleshooting the sign-up process

In most cases, you can sign up for Power BI by following the described process. Some of the issues that may prevent you from signing up are described in the following table, with possible workarounds.

Symptom / Error message	Cause and workaround
<p>Personal email addresses (for example nancy@gmail.com) You'll receive a message similar to this one during signup:</p> <p><i>You entered a personal email address: Please enter your work email address so we can securely store your company's data.</i></p> <p>or</p> <p><i>That looks like a personal email address. Enter your work address so we can connect you with others in your company. And don't worry. We won't share your address with anyone.</i></p>	<p>Power BI doesn't support email addresses provided by consumer email services or telecommunications providers.</p> <p>To finish signing up, try again using an email address assigned by your work or school.</p> <p>If you still can't sign up and are willing to complete a more advanced setup process, you can register for a new Office 365 trial subscription and use that email address to sign up.</p> <p>You can also have an existing user invite you as a guest.</p>

SYMPTOM / ERROR MESSAGE	CAUSE AND WORKAROUND
<p>Self-service signup disabled: You receive a message like this one during signup:</p> <p><i>We can't finish signing you up. Your IT department has turned off signup for Microsoft Power BI. Contact them to complete signup.</i></p> <p>or</p> <p><i>That looks like a personal email address. Enter your work address so we can connect you with others in your company. And don't worry. We won't share your address with anyone.</i></p>	<p>Your organization's IT admin has disabled self-service signup for Power BI.</p> <p>To finish signing up, contact your IT admin and ask them to follow the instructions to enable sign-up.</p> <p>You may also experience this problem if you signed up for Office 365 through a partner.</p>
<p>Email address isn't an Office 365 ID You receive a message like this one during signup:</p> <p><i>We can't find you at contoso.com. Do you use a different ID at work or school?</i></p> <p><i>Try signing in with that, and if it doesn't work, contact your IT department.</i></p>	<p>Your organization uses IDs to sign in to Office 365 and other Microsoft services that are different than your email address. For example, your email address might be Nancy.Smith@contoso.com but your ID is nancys@contoso.com.</p> <p>To finish signing up, use the ID that your organization has assigned to you for signing in to Office 365 or other Microsoft services. If you don't know what this is, contact your IT admin.</p> <p>If you still can't sign up and are willing to complete a more advanced setup process, you can register for a new Office 365 trial subscription and use that email address to sign up.</p>

Next steps

[Purchasing Power BI Pro](#)

[Power BI Service agreement for individual users](#)

More questions? [Try asking the Power BI Community](#)

Power BI service features by license type

2 minutes to read • [Edit online](#)

In the Power BI service, users have defined capabilities based on the type of per-user license they have and whether the content they are acting on is in a workspace assigned to a Power BI Premium capacity.

- **Per-user - *Power BI Pro and Power BI (free) licenses*.** A Power BI Pro license enables a user to collaborate with other Power BI Pro users by consuming content from, and sharing content with other users with a Power BI Pro license. Only users with a Power BI Pro license can publish content to app workspaces, share dashboards, and subscribe to dashboards and reports. A free license enables a user to consume content in a workspace assigned to a Power BI Premium capacity and access to some of the features of the Power BI service for their own personal content in their My Workspace. For more information, see [Sign up for Power BI as an individual](#) and [Purchase and assign Power BI Pro user licenses](#).
- **Power BI Premium capacity - *Power BI Premium licensing*.** Power BI Premium provides dedicated capacity to deliver more consistent performance and support larger data volumes in Power BI. Power BI Premium also enables widespread distribution of content by Pro users without requiring users who view the content to have Power BI Pro licenses. For more information, see [What is Power BI Premium?](#)

For a detailed comparison of license types, see the [Power BI features comparison](#) section of [Power BI pricing](#).

Get Power BI Desktop

8 minutes to read • [Edit Online](#)

Power BI Desktop lets you build advanced queries, models, and reports that visualize data. With Power BI Desktop, you can build data models, create reports, and share your work by publishing to the Power BI service. Power BI Desktop is a free download.

You can get Power BI Desktop in two ways, each of which is described in the following sections:

- [Install as an app from the Microsoft Store.](#)
- [Download directly, as an executable you download and install on your computer.](#)

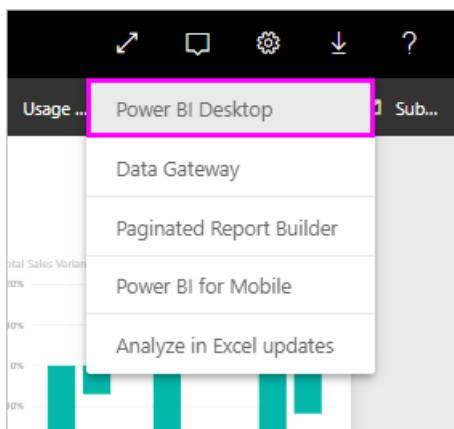
Either approach gets the latest version of Power BI Desktop onto your computer, but there are some differences worth noting, as described in the following sections.

Install as an app from the Microsoft Store

There are a few ways to access the most recent version of Power BI Desktop from the Microsoft Store.

1. Use one of the following options to open the [Power BI Desktop](#) page of the Microsoft Store:

- Open a browser and go directly to the [Power BI Desktop page](#) of the Microsoft Store.
- From the [Power BI service](#), select the [Download](#) icon from the upper right corner, and then select [Power BI Desktop](#).



- Go to the [Power BI Desktop product page](#), and then select [Download Free](#).
2. After you've landed on the [Power BI Desktop](#) page of the Microsoft Store, select [Install](#).

The screenshot shows the Microsoft Store page for Power BI Desktop. At the top right, there is a blue 'Install' button with a pink border and a three-dot menu icon. Below the title 'Power BI Desktop', it says 'Microsoft Corporation • Business > Data & analytics'. It has a 4-star rating from 159 reviews and a 'Share' link. The description highlights that Power BI Desktop puts visual analytics at your fingertips and allows you to create interactive data visualizations and reports. There is a 'More' link below the description. On the left, there is an ESRB rating icon showing 'E' (Everyone) and the text 'EVERYONE'. On the right, there is a blue 'Wish list' button.

There are a few advantages to getting Power BI Desktop from the Microsoft Store:

- **Automatic updates:** Windows downloads the latest version automatically in the background as soon as it's available, so your version will always be up to date.
- **Smaller downloads:** Microsoft Store ensures only components that have changed in each update are downloaded to your machine, resulting in smaller downloads for each update.
- **Admin privilege isn't required:** When you download the package directly and install it, you must be an administrator for the installation to complete successfully. If you get Power BI Desktop from the Microsoft Store, admin privilege is *not* required.
- **IT roll-out enabled:** Through the Microsoft Store for Business, you can more easily deploy, or *roll out*, Power BI Desktop to everyone in your organization.
- **Language detection:** The Microsoft Store version includes all supported languages, and checks the language used on your computer each time it's launched. This language support also affects the localization of models created in Power BI Desktop. For example, built-in date hierarchies match the language that Power BI Desktop is using when the .pbix file is created.

The following considerations and limitations apply when you install Power BI Desktop from the Microsoft Store:

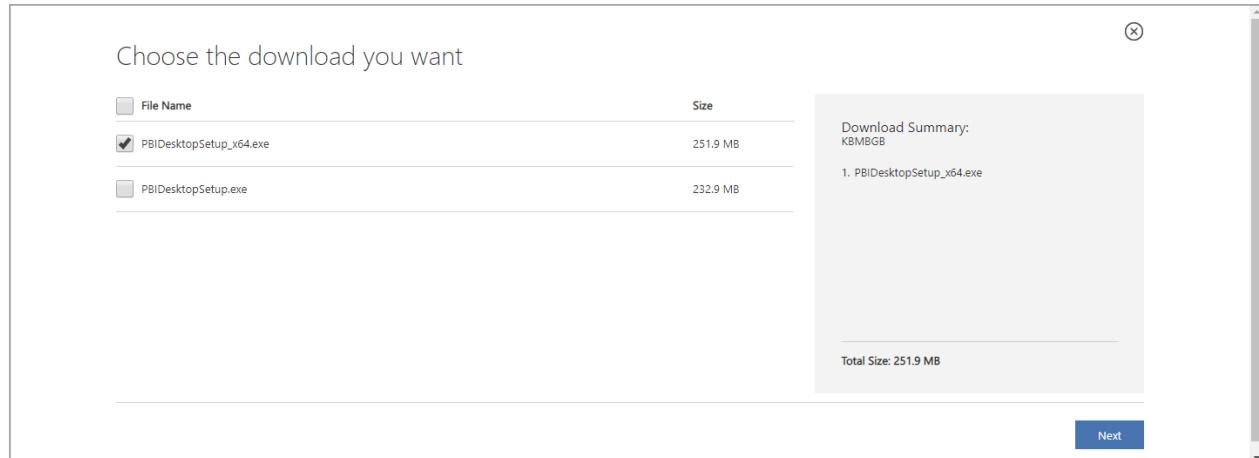
- If you use the SAP connector, you may need to move your SAP driver files to the `Windows\System32` folder.
- Installing Power BI Desktop from the Microsoft Store doesn't copy user settings from the .exe version. You might have to reconnect to your recent datasources and reenter your data source credentials.

NOTE

The Power BI Report Server version of Power BI Desktop is a separate and different installation from the versions discussed in this article. For information about the Report Server version of Power BI Desktop, see [Create a Power BI report for Power BI Report Server](#).

Download Power BI Desktop directly

To download the Power BI Desktop executable from the Download Center, select **Download** from the [Download Center page](#). Then, specify a 32-bit or 64-bit installation file to download.



Install Power BI Desktop after downloading it

You're prompted to run the installation file after you've finished downloading it.

Beginning with the July 2019 release, Power BI Desktop ships as a single .exe installation package that contains all supported languages, with a separate .exe file for the 32-bit and 64-bit versions. The .msi packages are discontinued beginning with the September 2019 release, requiring the .exe executable for installation. This approach makes distribution, updates, and installation (especially for administrators) much easier and more convenient. You can also use command-line parameters to customize the installation process, as described in [Using command-line options during installation](#).

After you launch the installation package, Power BI Desktop installs as an application and runs on your desktop.

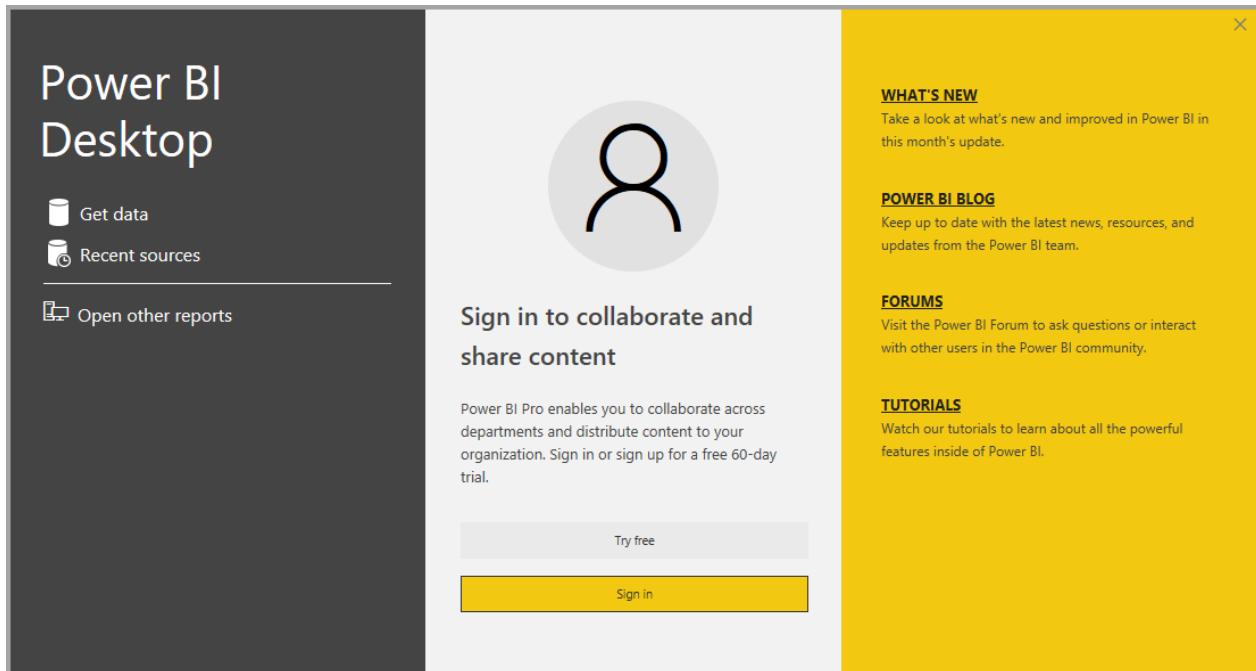


NOTE

Installing the downloaded (MSI) version (deprecated), and the Microsoft Store version of Power BI Desktop on the same computer (sometimes referred to as a *side-by-side* installation) is not supported. Manually uninstall Power BI Desktop before you download it from the Microsoft Store.

Using Power BI Desktop

When you launch Power BI Desktop, a welcome screen is displayed.



If you're using Power BI Desktop for the first time (that is, the installation isn't an upgrade), you're prompted to fill out a form or sign in to the Power BI service before you can continue.

From there, you can begin creating data models or reports, then share them with others on the Power BI service. Check out the [Next steps](#) section for links to guides to help you get started using Power BI Desktop.

Minimum requirements

The following list provides the minimum requirements to run Power BI Desktop:

- Windows 7 / Windows Server 2008 R2, or later
- .NET 4.5
- Internet Explorer 10 or later
- Memory (RAM): At least 1 GB available, 1.5 GB or more recommended.
- Display: At least 1440x900 or 1600x900 (16:9) recommended. Lower resolutions such as 1024x768 or 1280x800 aren't recommended, as certain controls (such as closing the startup screen) display beyond those resolutions.
- Windows display settings: If you set your display settings to change the size of text, apps, and other items to more than 100%, you may not be able to see certain dialogs that you must interact with to continue using Power BI Desktop. If you encounter this issue, check your display settings in Windows by going to **Settings > System > Display**, and use the slider to

return display settings to 100%.

- CPU: 1 gigahertz (GHz) or faster 32-bit or 64-bit x86 processor recommended.

Considerations and limitations

We want your experience with Power BI Desktop to be great. Because there may be occasions when you run into an issue with Power BI Desktop, this section contains solutions or suggestions to address these issues.

Using command-line options during installation

When you install Power BI Desktop, you can set properties and options with command-line switches. These settings are especially useful for administrators who manage or facilitate the installation of Power BI Desktop across organizations. These options apply to .msi and .exe installations.

COMMAND-LINE OPTION	BEHAVIOR
-q, -quiet, -s, -silent	Silent install
-passive	Show the progress bar only during installation
-norestart	Suppress the computer restart requirement
-forcerestart	Restart the computer after installation without a prompt
-promptrestart	Prompt the user if computer restart is required (default)
-l<>, -log<>	Log the installation to a specific file, with the file specified in <>
-uninstall	Uninstall Power BI Desktop
-repair	Repair the installation (or install if it's not currently installed)
-package, -update	Install Power BI Desktop (default, as long as -uninstall or -repair aren't specified)

You can also use the following syntax parameters, which you specified with a *property = value* syntax:

PARAMETER	MEANING
ACCEPT_EULA	Requires a value of 1 to automatically accept the EULA
ENABLECXP	A value of 1 enrolls in the customer experience program that captures telemetry on usage of the product
INSTALLDESKTOPSHORTCUT	A value of 1 adds a shortcut to the Desktop

PARAMETER	MEANING
INSTALLLOCATION	File path to where you want it installed
LANGUAGE	The locale code (for example, en-US, de-DE, pt-BR) to force the default language of the application. If you don't specify the language, Power BI Desktop displays the Windows OS language. You can change this setting in the Options dialog.
REG_SHOWLEADGENDIALOG	A value of 0 disables showing the dialog that appears before you've signed in to Power BI Desktop.
DISABLE_UPDATE_NOTIFICATION	A value of 1 disables update notifications.

For example, you can run Power BI Desktop with the following options and parameters to install without any user interface, using the German language:

```
-quiet LANG=de-DE ACCEPT_EULA=1
```

Installing Power BI Desktop on remote machines

If you're deploying Power BI Desktop to your users with a tool that requires a Windows installer file (.msi file), you can extract the .msi file from the Power BI Desktop installer .exe file. Use a third-party tool, such as [WiX Toolset](#).

NOTE

As a third-party product, WiX Toolset options might change without notice. Check their documentation for the most up-to-date information, and contact their user mailing list for help.

1. On the computer where you downloaded the Power BI Desktop installer, install the latest version of the [WiX Toolset](#).
2. Open a command-line window as an administrator and navigate to the folder where you installed WiX Toolset.
3. Run the following command:

```
Dark.exe <path to Power BI Desktop installer> -x <output folder>
```

For example:

```
Dark.exe C:\PBIDesktop_x64.exe -x C:\output
```

The output folder contains a folder named *AttachedContainer*, which includes the .msi files.

Upgrading an install from an .exe to a .msi that you've extracted from an .exe is not supported. In order to make this upgrade, first you'll need to uninstall the older version of Power BI Desktop that you have.

Issues when using previous releases of Power BI Desktop

Some users may encounter an error message similar to the following message

when they use an outdated version of Power BI Desktop:

We weren't able to restore the saved database to the model

Updating to the current version of Power BI Desktop usually solves this issue.

Disabling notifications

We recommend updating to the most recent version of Power BI Desktop to take advantage of advances in features, performance, stability, and other improvements. Some organizations may not want users to update to each new version. You can disable notifications by modifying the registry with the following steps:

1. In the Registry Editor, navigate to the `HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft Power BI Desktop` key.
2. Create a new `REG_DWORD` entry in the key with the following name: `DisableUpdateNotification`.
3. Set the value of that new entry to 1.
4. Restart your computer for the change to take effect.

Power BI Desktop loads with a partial screen

In certain circumstances, including certain screen resolution configurations, some users may see Power BI Desktop render content with large black areas. This issue is generally a result of recent operating system updates that affect how items are rendered, rather than a direct result of how Power BI Desktop presents content. Follow these steps to address this issue:

1. Press the `Start` key and enter `blurry` into the search bar that appears.
2. In the dialog that appears, select the option: `Let Windows fix apps that are blurry`.
3. Restart Power BI Desktop.

This issue may resolve after later Windows updates are released.

Next steps

After you've installed Power BI Desktop, see the following content to help you get up and running quickly:

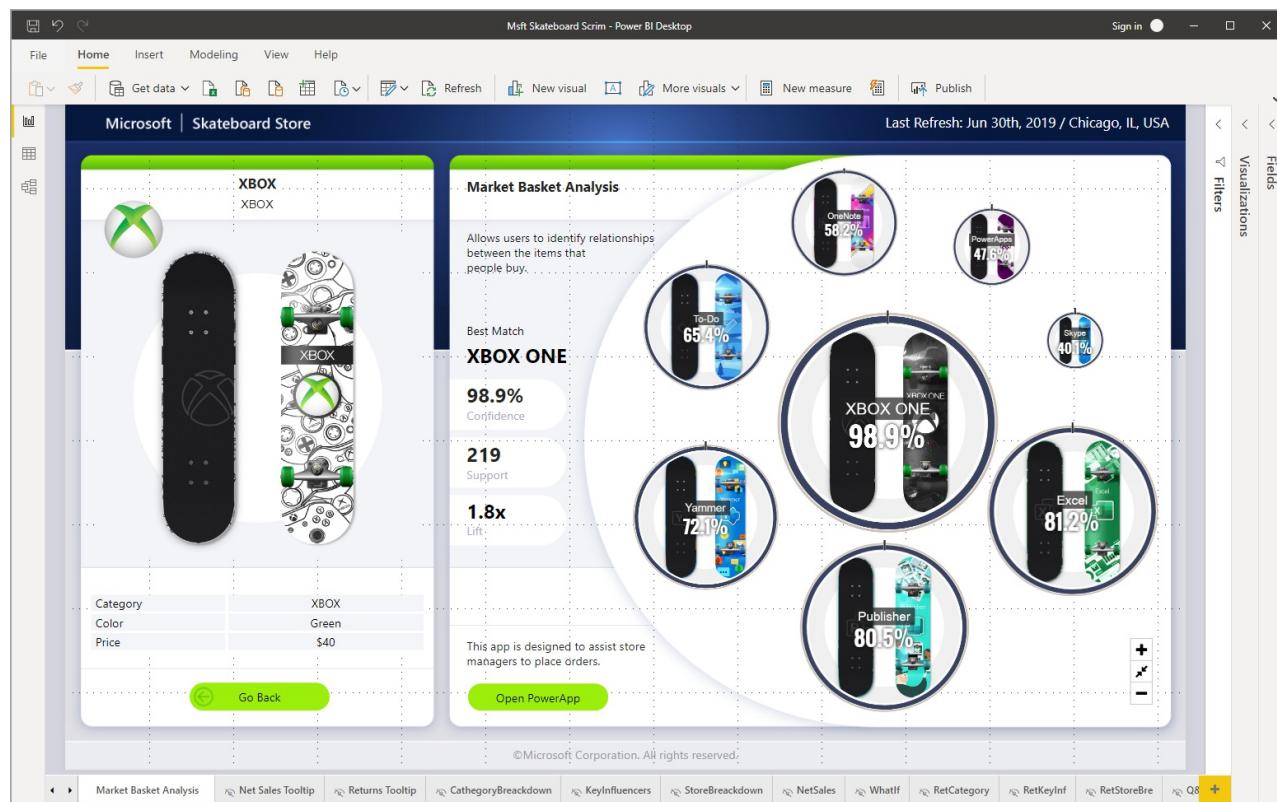
- [What is Power BI Desktop?](#)
- [Query overview in Power BI Desktop](#)
- [Data sources in Power BI Desktop](#)
- [Connect to data in Power BI Desktop](#)
- [Shape and combine data in Power BI Desktop](#)
- [Common query tasks in Power BI Desktop](#)

Get started with Power BI Desktop

20 minutes to read • [Edit online](#)

Welcome to the getting started guide for Power BI Desktop. This tour shows you how Power BI Desktop works, what it can do, and how to build robust data models and amazing reports to amplify your business intelligence.

For a quick overview of how Power BI Desktop works and how to use it, you can scan the screens in this guide in just a few minutes. For a more thorough understanding, you can read through each section, perform the steps, and create your own Power BI Desktop file to post on the [Power BI service](#) and share with others.



You can also watch the [Getting Started with the Power BI Desktop](#) video, and download the [Financial Sample](#) Excel workbook to follow along with the video.

How Power BI Desktop works

With Power BI Desktop, you can:

1. Connect to data, including multiple data sources.
2. Shape the data with queries that build insightful, compelling data models.
3. Use the data models to create visualizations and reports.
4. Share your report files for others to leverage, build upon, and share. You can share Power BI Desktop .pbix files like any other files, but the most compelling method is to upload them to the [Power BI service](#).

Power BI Desktop integrates proven Microsoft query engine, data modeling, and visualization technologies. Data analysts and others can create collections of queries, data connections, models, and reports, and easily share them with

others. Through the combination of Power BI Desktop and the Power BI service, new insights from the world of data are easier to model, build, share, and extend.

Power BI Desktop centralizes, simplifies, and streamlines what can otherwise be a scattered, disconnected, and arduous process of designing and creating business intelligence repositories and reports. Ready to give it a try? Let's get started.

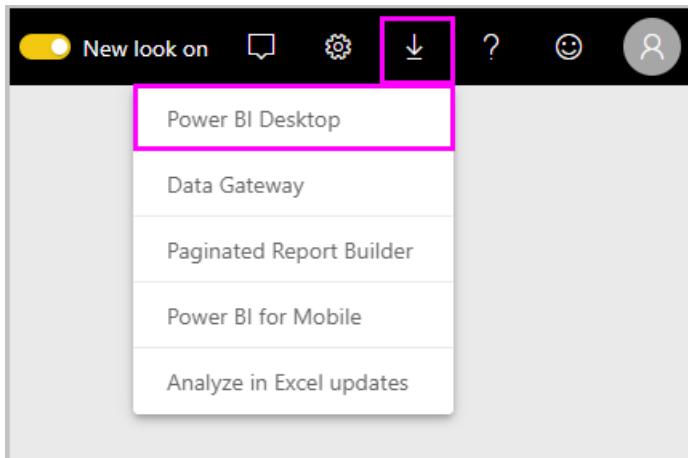
NOTE

For data and reporting that must remain on-premises, there's a separate and specialized version of Power BI called [Power BI Report Server](#). Power BI Report Server uses a separate and specialized version of Power BI Desktop called Power BI Desktop for Power BI Report Server, which works only with the Report Server version of Power BI. This article describes standard Power BI Desktop.

Install and run Power BI Desktop

To download Power BI Desktop, go to the [Power BI Desktop download page](#) and select **Download Free**. Or for download options, select [See download or language options](#).

You can also download Power BI Desktop from the Power BI service. Select the **Download** icon in the top menu bar, and then select **Power BI Desktop**.



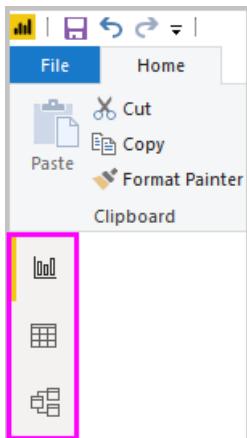
On the Microsoft Store page, select **Get**, and follow the prompts to install Power BI Desktop on your computer. Start Power BI Desktop from the Windows Start menu or from the icon in the Windows taskbar.

The first time Power BI Desktop starts, it displays the **Welcome** screen.

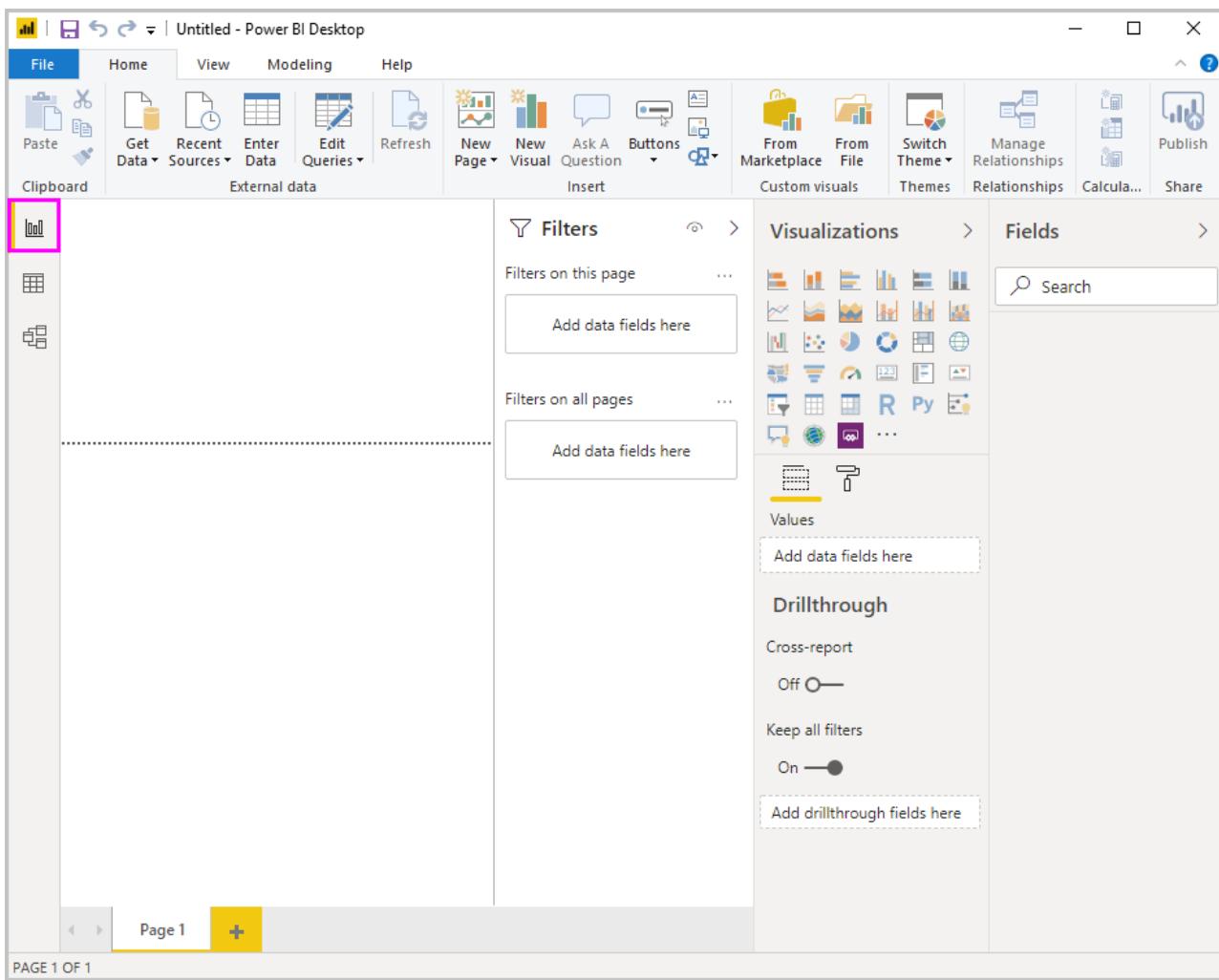
From the **Welcome** screen, you can **Get data**, see **Recent sources**, open recent reports, **Open other reports**, or select other links. You can also choose whether to always show the **Welcome** screen at startup. Select the close icon to close the **Welcome** screen.

The screenshot shows the Power BI Desktop interface. On the left, there's a sidebar with icons for 'Get data' and 'Recent sources'. Below that is a list of recent files: 'Retail Analysis Sample PBIX...', 'Issues and Pull requests_Git...', and '2019userstories1.pbix'. At the bottom of the sidebar is an 'Open other reports' button. The main area has a yellow header bar with three icons: Report (highlighted with a pink box), Data, and Relationships. The main workspace shows a dashboard with a bar chart, a donut chart, and a map. A large play button icon is overlaid on the dashboard. Below the dashboard are four video thumbnail previews: 'Getting started with Power BI Desktop', 'Building reports', 'Query view concepts', 'Uploading your reports', and 'Create a Phone report'. A 'VIEW ALL VIDEOS' link is at the bottom of the video section. A checkbox 'Show this screen on startup' is also present.

Along the left side of Power BI Desktop are icons for the three Power BI Desktop views: **Report**, **Data**, and **Relationships**, from top to bottom. The current view is indicated by the yellow bar along the left, and you can change views by selecting any of the icons.



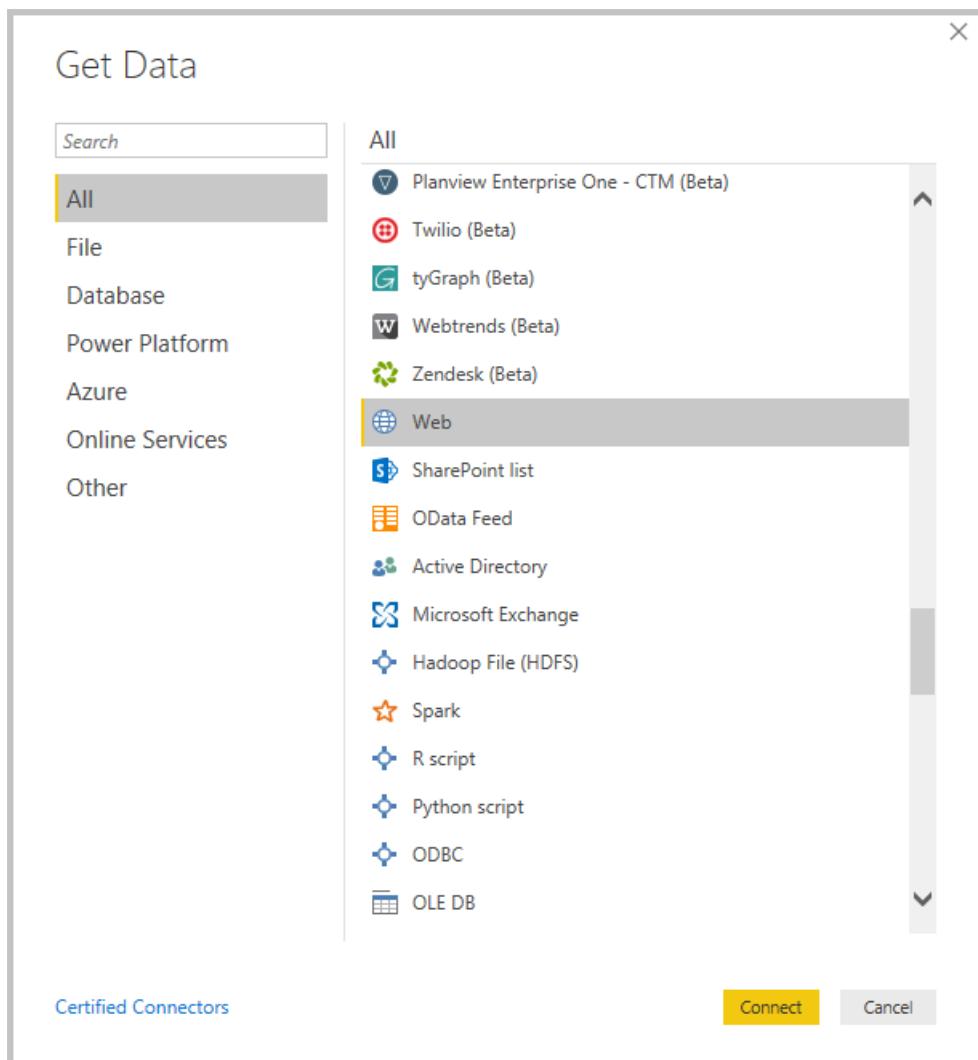
Report view is the default view.



Power BI Desktop also includes the **Power Query Editor**, which opens in a separate window. In **Power Query Editor**, you can build queries and transform data, then load the refined data model into Power BI Desktop to create reports.

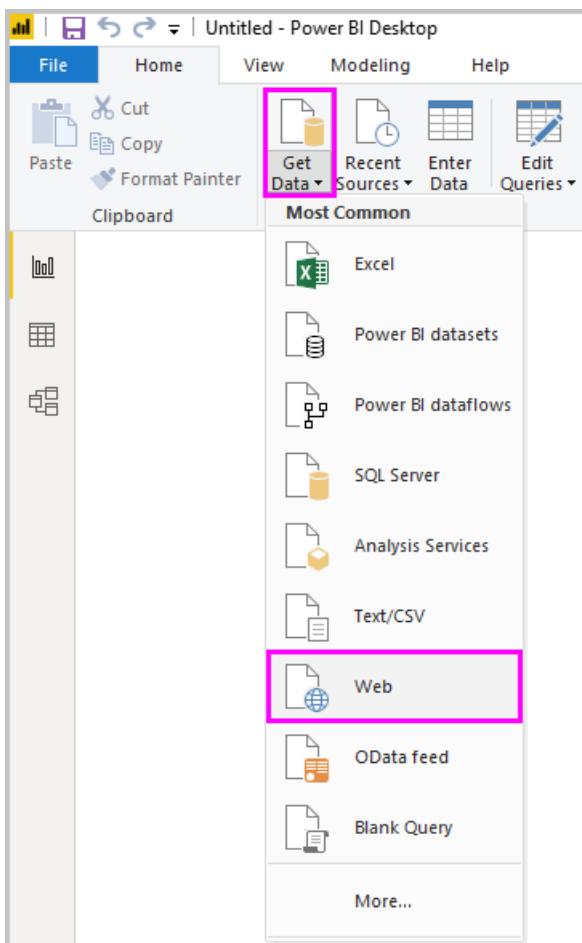
Connect to data

With Power BI Desktop installed, you're ready to connect to the ever-expanding world of data. To see the many types of data sources available, select **Get Data > More** in the Power BI Desktop **Home** tab, and in the **Get Data** window, scroll through the list of **All** data sources. In this quick tour, you connect to a couple of different **Web** data sources.

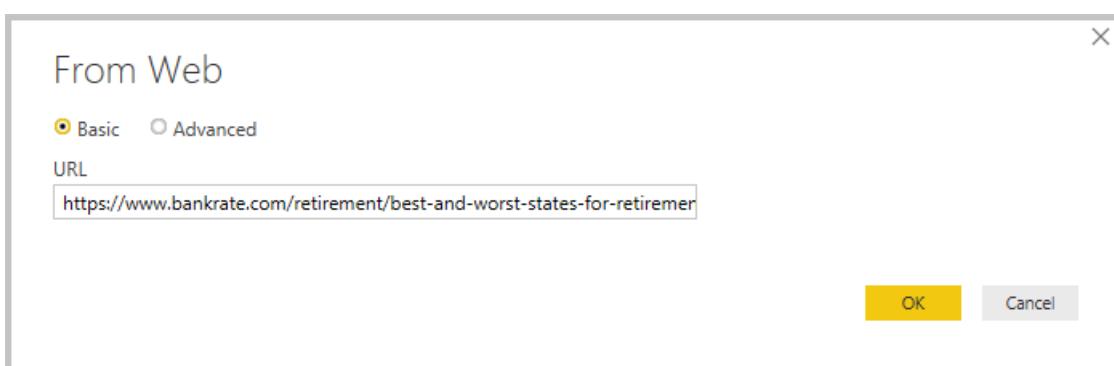


Imagine you're a data analyst working for a sunglasses retailer. You want to help your client target sunglasses sales where the sun shines most frequently. The Bankrate.com [Best and worst states for retirement](#) page has interesting data on this subject.

On the Power BI Desktop **Home** tab, select **Get Data > Web** to connect to a web data source.



In the **From web** dialog box, paste the address <https://www.bankrate.com/retirement/best-and-worst-states-for-retirement/> into the URL field, and select OK.



If prompted, on the **Access Web Content** screen, select **Connect** to use anonymous access.

The query functionality of Power BI Desktop goes to work and contacts the web resource. The **Navigator** window returns what it found on the web page, in this case a table called **Ranking of best and worst states for retirement**, and a document. You're interested in the table, so select it to see a preview.

At this point you can select **Load** to load the table, or **Transform data** to make changes in the table before you load it.

Navigator

The screenshot shows the Power BI Navigator window. On the left, there's a search bar and a 'Display Options' dropdown. Below that is a list of connections, with one item selected: 'Ranking of best and worst states for retire...'. On the right, a preview of the table data is shown in a 'Table View' tab. The table has columns: State, Overall rank, Affordability, Crime, Culture, and Weather. The data includes rows for various US states like Nebraska, Iowa, Missouri, etc., with their respective ranks and scores. At the bottom, there are buttons for 'Add table using examples', 'Load', 'Transform Data' (which is highlighted with a pink box), and 'Cancel'.

When you select **Transform data**, Power Query Editor launches, with a representative view of the table. The **Query Settings** pane is on the right, or you can always show it by selecting **Query Settings** on the **View** tab of Power Query Editor.

The screenshot shows the Power Query Editor window with the 'Transform' tab selected. The main area displays the 'Ranking of best and worst states for retirement' table. The 'Transform' ribbon tab is active, showing various data transformation tools. To the right, the 'Query Settings' pane is open, showing the 'Name' field set to 'Ranking of best and worst states for retire...' and the 'Applied Steps' section which includes a step named 'Changed Type'. The status bar at the bottom indicates '7 COLUMNS, 50 ROWS' and 'Column profiling based on top 1000 rows'.

For more information about connecting to data, see [Connect to data in Power BI Desktop](#).

Shape data

Now that you're connected to a data source, you can adjust the data to meet

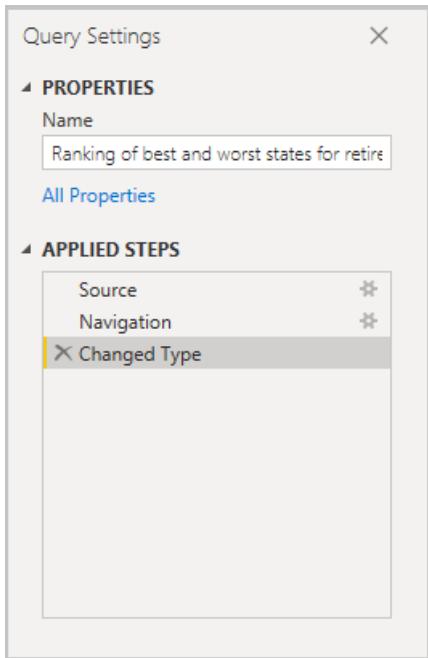
your needs. To *shape* data, you provide Power Query Editor with step-by-step instructions for adjusting the data while loading and presenting it. Shaping doesn't affect the original data source, only this particular view of the data.

NOTE

The table data used in this guide might change over time. As such, the steps you need to follow might vary, requiring you to be creative about how you adjust steps or outcomes, which is all part of the fun of learning.

Shaping can mean *transforming* the data, such as renaming columns or tables, removing rows or columns, or changing data types. Power Query Editor captures these steps sequentially under **Applied Steps** in the **Query Settings** pane. Each time this query connects to the data source, those steps are carried out, so the data is always shaped the way you specify. This process occurs when you use the query in Power BI Desktop, or when anyone uses your shared query, such as in the Power BI service.

Notice that the **Applied Steps** in **Query Settings** already contain a few steps. You can select each step to see its effect in the Power Query Editor. First, you specified a web source, and then you previewed the table in the **Navigator** window. In the third step, **Changed type**, Power BI recognized whole number data when importing it, and automatically changed the original web **Text data type** to **Whole numbers**.



If you need to change a data type, select the column or columns to change. Hold down the **Shift** key to select several adjacent columns, or **Ctrl** to select non-adjacent columns. Either right-click a column header, select **Change Type**, and choose a new data type from the menu, or drop down the list next to **Data Type** in the **Transform** group of the **Home** tab, and select a new data type.

The screenshot shows the Power Query Editor interface. A context menu is open over the 'State' column header. The 'Change Type' option is highlighted with a pink box. A dropdown menu is displayed, showing various data types like Decimal Number, Fixed decimal number, Whole Number, Percentage, Date/Time, etc., with 'Text' selected. The 'Data Type: Text' button is also highlighted with a pink box in the top right corner.

NOTE

The Power Query Editor in Power BI Desktop uses the ribbon or the right-click menus for available tasks. Most of the tasks you can select on the Home or Transform tabs of the ribbon are also available by right-clicking an item and choosing from the menu that appears.

You can now apply your own changes and transformations to the data and see them in **Applied Steps**.

For example, for sunglasses sales you're most interested in the weather ranking, so you decide to sort the table by the **Weather** column instead of by **Overall rank**. Drop down the arrow next to the **Weather** header, and select **Sort ascending**. The data now appears sorted by weather ranking, and the step **Sorted Rows** appears in **Applied Steps**.

The screenshot shows the Power Query Editor with the 'Weather' column sorted ascending. The 'Applied Steps' pane on the right shows the following steps: Source, Navigation, Changed Type, and Sorted Rows, with 'Sorted Rows' highlighted with a pink box.

You're not very interested in selling sunglasses to the worst weather states,

so you decide to remove them from the table. From the **Home** tab, select **Remove Rows > Remove Bottom Rows**. In the **Remove Bottom Rows** dialog box, enter **10**, and then select **OK**.

The bottom 10 worst weather rows are removed from the table, and the step **Removed Bottom Rows** appears in **Applied Steps**.

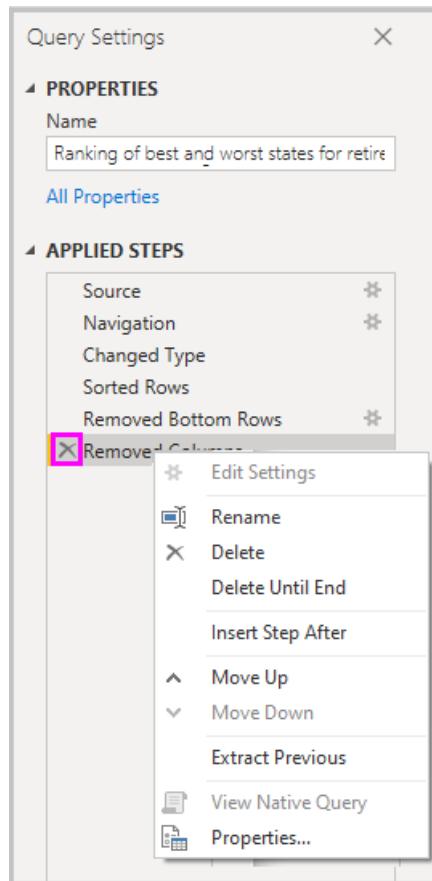
You decide the table has too much extra information for your needs, and to remove the **Affordability**, **Crime**, **Culture**, and **Wellness** columns. Select the header of each column that you want to remove. Hold down the **Shift** key to select several adjacent columns, or **Ctrl** to select non-adjacent columns.

Then, from the **Manage Columns** group of the **Home** tab, select **Remove Columns**. You can also right-click one of the selected column headers and select **Remove Columns** from the menu. The selected columns are removed, and the step **Removed Columns** appears in **Applied Steps**.

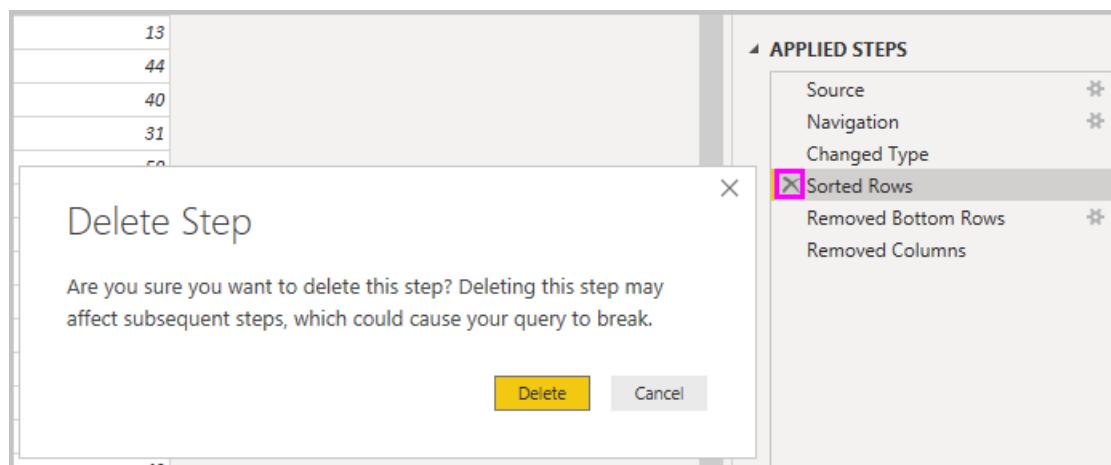
On second thought, **Affordability** might be relevant to sunglasses sales after

all. You'd like to get that column back. You can easily undo the last step in the **Applied Steps** pane by selecting the X delete icon next to the step. Now redo the step, selecting only the columns you want to delete. For more flexibility, you could delete each column as a separate step.

You can right-click any step in the **Applied Steps** pane and choose to delete it, rename it, move it up or down in the sequence, or add or delete steps after it. For intermediate steps, Power BI Desktop will warn you if the change could affect later steps and break your query.



For example, if you no longer wanted to sort the table by **Weather**, you might try to delete the **Sorted Rows** step. Power BI Desktop warns you that deleting this step could cause your query to break. You removed the bottom 10 rows after you sorted by weather, so if you remove the sort, different rows will be removed. You also get a warning if you select the **Sorted Rows** step and try to add a new intermediate step at that point.



Finally, you change the table title to be about sunglass sales instead of

retirement. Under **Properties** in the **Query Settings** pane, replace the old title with *Best states for sunglass sales*.

The finished query for your shaped data looks like this:

The screenshot shows the Power Query Editor interface. The ribbon at the top has tabs for File, Home, Transform, Add Column, View, and Help. The Home tab is selected. The ribbon bar includes icons for Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Data Sources, Parameters, Refresh Preview, Manage, Properties, Advanced Editor, Choose Columns, Remove Columns, Keep Rows, Remove Rows, Sort, Reduce Rows, Split Column, Group By, and Data Type: Whole Number. Below the ribbon is a list of queries: 'Best states for sun...'. A preview window shows a table with four columns: 'State', 'Overall rank', 'Affordability', and 'Weather'. The 'Affordability' column is highlighted. The table contains 20 rows of data. To the right of the preview is the 'Query Settings' pane. It shows the 'Name' is 'Best states for sunglass sales' under the 'PROPERTIES' section. Under 'APPLIED STEPS', it lists 'Source', 'Navigation', 'Changed Type', 'Sorted Rows', 'Removed Bottom Rows', and 'Removed Columns'. The 'Removed Bottom Rows' step is currently selected.

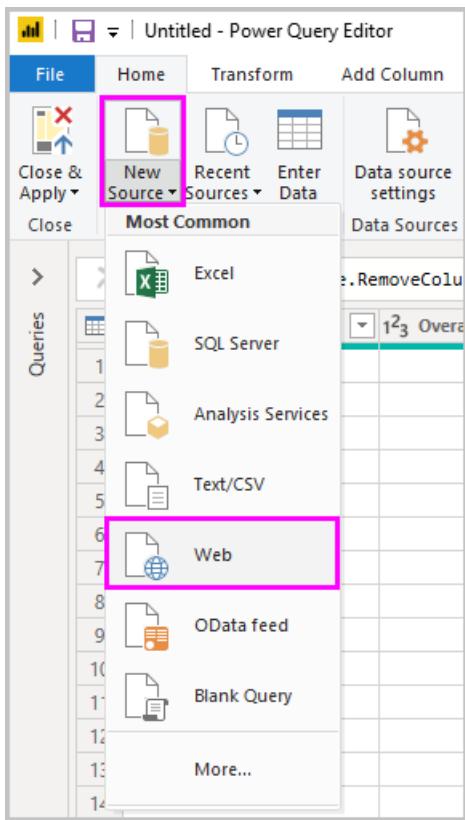
For more information about shaping data, see [Shape and combine data in Power BI Desktop](#).

Combine data

The data about various states is interesting, and will be useful for building additional analysis efforts and queries. But there's one problem: most data out there uses two-letter abbreviations for state codes, not the full names of the states. To use that data, you need some way to associate your state names with their abbreviations.

You're in luck. Another public data source does just that, but the data will need a fair amount of shaping before you can *combine* it with your sunglass table.

To import the state abbreviations data into Power Query Editor, select **New Source > Web** from the **New Query** group on the **Home** tab of the ribbon.



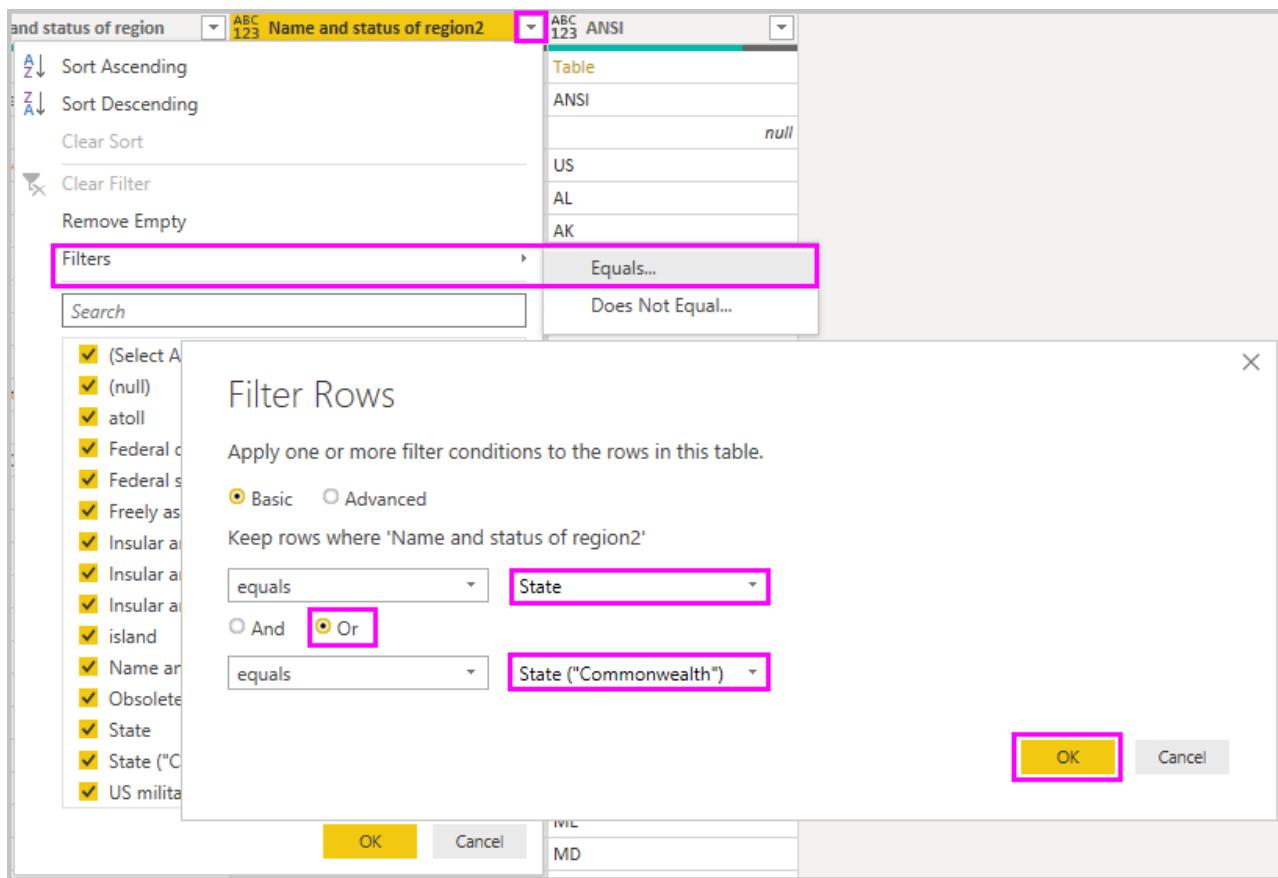
In the **From web** dialog box, enter the URL for the state abbreviations site:
https://en.wikipedia.org/wiki/List_of_U.S._state_abbreviations.

In the **Navigator** window, select the table **Codes and abbreviations for U.S. states, federal district, territories, and other regions**, and then select **OK**. The table opens in Power Query Editor.

Remove all columns except for **Name and status of region**, **Name and status of region2**, and **ANSI**. To keep only these columns, hold down **Ctrl** and select the columns. Then, either right-click one of the column headers and select **Remove Other Columns**, or, from the **Manage Columns** group of the **Home** tab, select **Remove Other Columns**.

Drop down the arrow next to the **Name and status of region2** column header, and select **Filters > Equals**. In the **Filter Rows** dialog box, drop down the **Enter or select a value** field next to **equals** and select **State**.

Select **Or**, and next to the second **equals** field, select **State ("Commonwealth")**. Select **OK**.



With extra values like **Federal district** and **island** removed, you now have a list of the 50 states and their official two-letter abbreviations. You can rename the columns to make more sense, for example **State name**, **Status**, and **Abbreviation**, by right-clicking the column headers and selecting **Rename**.

Note that all of these steps are recorded under **Applied Steps** in the **Query Settings** pane.

Your shaped table now looks like this:

	ABC 123 State name	ABC 123 Status	ABC 123 Abbreviation
1	Alabama	State	AL
2	Alaska	State	AK
3	Arizona	State	AZ
4	Arkansas	State	AR
5	California	State	CA
6	Colorado	State	CO
7	Connecticut	State	CT
8	Delaware	State	DE
9	Florida	State	FL
10	Georgia	State	GA
11	Hawaii	State	HI
12	Idaho	State	ID
13	Illinois	State	IL
14	Indiana	State	IN
15	Iowa	State	IA
16	Kansas	State	KS
17	Kentucky	State ("Commonwealth")	KY

Retitle the table to **State codes** in the **Properties** field of **Query Settings**.

With the **State codes** table shaped, you can *combine* these two tables into one. Since the tables you now have are a result of queries you applied to the data, they're also called *queries*. There are two primary ways of combining queries:

merge and append.

When you have one or more columns you'd like to add to another query, you *merge* the queries. When you have additional rows of data you'd like to add to an existing query, you *append* the query.

In this case, you want to *merge* the State codes query into the Best states for sunglasses query. To merge the queries, switch to the Best states for sunglasses query by selecting it from the Queries pane on the left side of Power Query Editor. Then select Merge Queries from the Combine group in the Home tab of the ribbon.

In the Merge window, drop down the field to select State codes from the other queries available. Select the column to match from each table, in this case State from the Best states for sunglasses query and State name from the State codes query.

If you get a Privacy levels dialog, select Ignore privacy levels checks for this file and then select Save. Select OK.

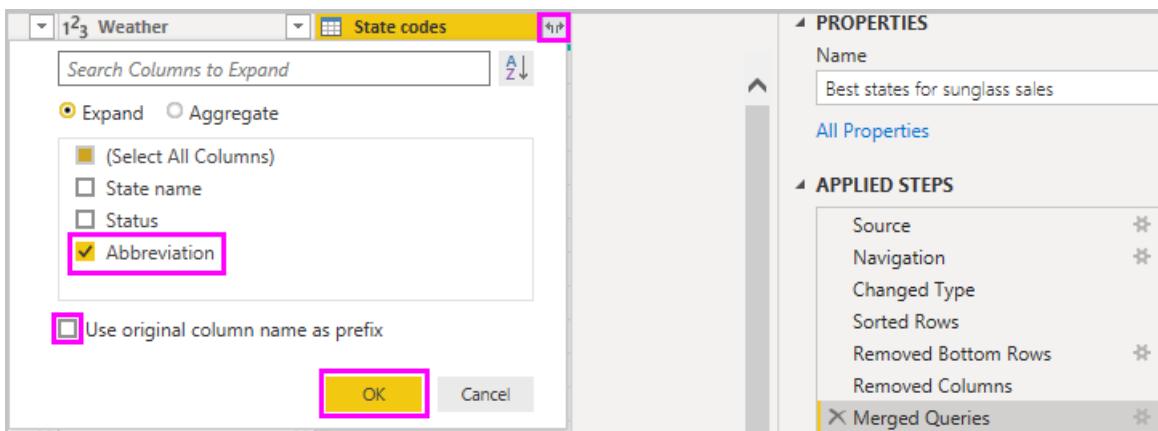
The screenshot shows the Microsoft Power Query Editor's 'Merge' dialog. At the top, there's a ribbon bar with various tools like 'Choose Columns', 'Remove Columns', 'Keep Rows', 'Remove Rows', 'Sort', 'Split Column', 'Group By', 'Replace Values', 'Transform', and a 'Merge Queries' button which is highlighted with a pink box. Below the ribbon, the word 'Merge' is displayed. A instruction says 'Select a table and matching columns to create a merged table.' Two tables are shown: 'Best states for sunglass sales' and 'State codes'. The 'State' column in the first table and the 'State name' column in the second table are highlighted with pink boxes. At the bottom, there's a 'Join Kind' dropdown set to 'Left Outer (all from first, matching from second)', a checkbox for 'Use fuzzy matching to perform the merge', and a 'Fuzzy matching options' link. The 'OK' button is highlighted with a yellow box.

A new column called State codes appears on the right of the Best states for sunglasses sales table. It contains the state code query that you merged with the best states for sunglasses sales query. All the columns from the merged table

are condensed into the **State codes** column. You can *expand* the merged table and include only the columns you want.

A	B	C	State	Overall rank	Affordability	Weather	State codes
1	Hawaii			10	45		1 Table
2	Florida			5	25		2 Table
3	Louisiana			36	29		3 Table
4	Texas			17	24		4 Table
5	Georgia			28	19		5 Table
6	Mississippi			19	6		6 Table
7	Alabama			16	10		7 Table
8	South Carolina			41	27		8 Table
9	Arkansas			11	4		9 Table
10	Arizona			38	33		10 Table
11	Oklahoma			21	11		11 Table
12	North Carolina			7	13		12 Table
13	California			43	49		13 Table
14	Tennessee			22	12		14 Table
15	Kentucky			6	9		15 Table

To expand the merged table and select which columns to include, select the **Expand** icon in the column header. In the **Expand** dialog box, select only the **Abbreviation** column. Deselect **Use original column name as prefix**, and then select **OK**.



NOTE

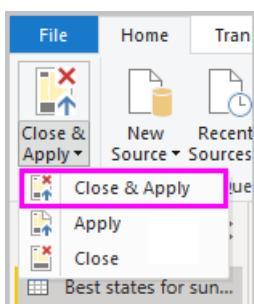
You can play around with how to bring in the **State codes** table. Experiment a bit, and if you don't like the results, just delete that step from the **Applied Steps** list in the **Query Settings** pane. It's a free do-over, which you can do as many times as you like until the expand process looks the way you want it.

For a more complete description of the shape and combine data steps, see [Shape and combine data in Power BI Desktop](#).

You now have a single query table that combines two data sources, each of which has been shaped to meet your needs. This query can serve as a basis for lots of additional, interesting data connections, such as demographics, wealth levels, or recreational opportunities in the states.

The screenshot shows the Power Query Editor interface. On the left, there's a 'Queries' pane. The main area displays a table with 40 rows, each representing a US state. The columns are labeled 'State', 'Overall rank', 'Affordability', 'Weather', and 'Abbreviation'. The table is sorted by 'Weather' in ascending order. The 'Applied Steps' pane on the right shows a list of actions taken, with 'Sorted Rows1' being the most recent. The status bar at the bottom indicates '5 COLUMNS, 40 ROWS' and 'Column profiling based on top 1000 rows'.

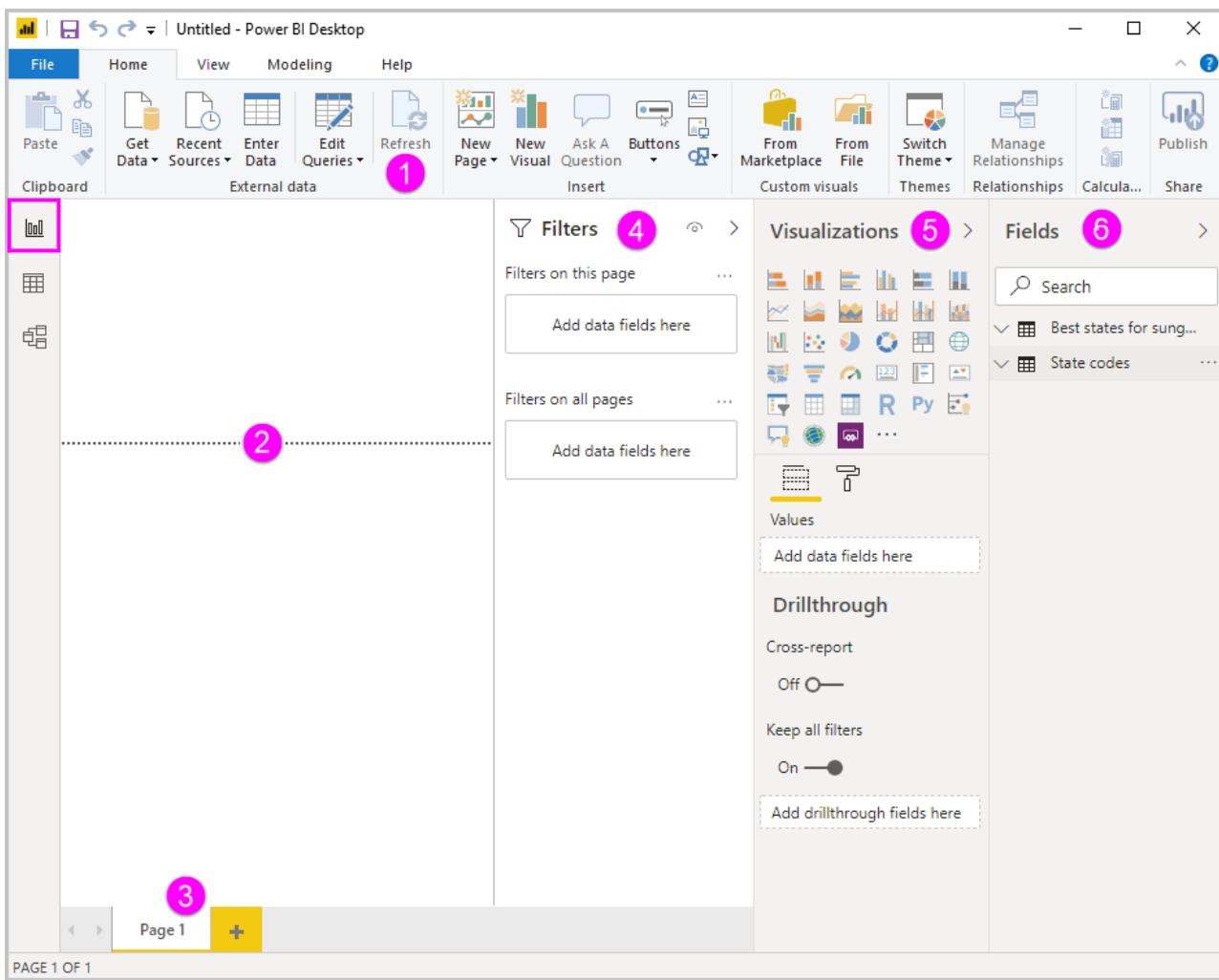
For now, you have enough data to create an interesting report in Power BI Desktop. Since this is a milestone, apply the changes in Power Query Editor and load them into Power BI Desktop by selecting Close & Apply from the Home tab of the ribbon. You can also select just Apply to keep the query open in Power Query Editor while you work in Power BI Desktop.



You can make more changes to a table after it is loaded into Power BI Desktop, and reload the model to apply any changes you make. To reopen Power Query Editor from Power BI Desktop, select Edit Queries on the Home tab of the Power BI Desktop ribbon.

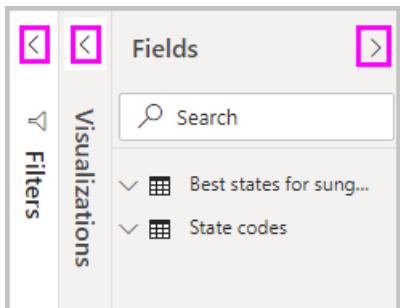
Build reports

In Power BI Desktop Report view, you can build visualizations and reports. The Report view has six main areas:



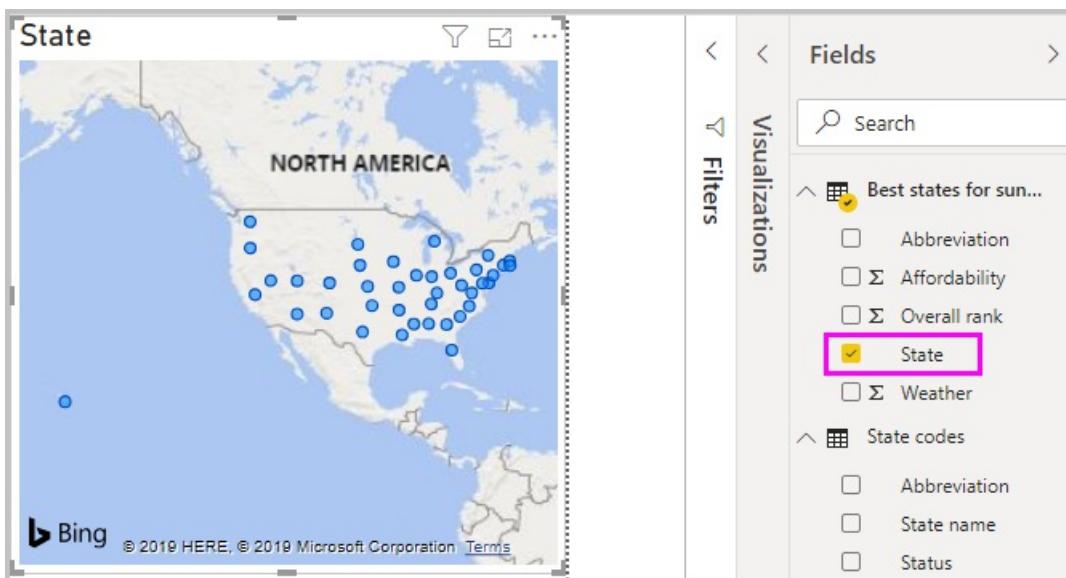
1. The ribbon at the top, which displays common tasks associated with reports and visualizations.
2. The canvas area in the middle, where visualizations are created and arranged.
3. The pages tab area at the bottom, which lets you select or add report pages.
4. The **Filters** pane, where you can filter data visualizations.
5. The **Visualizations** pane, where you can add, change, or customize visualizations, and apply drillthrough.
6. The **Fields** pane, which shows the available fields in your queries. You can drag these fields onto the canvas, the **Filters** pane, or the **Visualizations** pane to create or modify visualizations.

You can expand and collapse the **Filters**, **Visualizations**, and **Fields** panes by selecting the arrows at the tops of the panes. Collapsing the panes provides more space on the canvas to build cool visualizations.



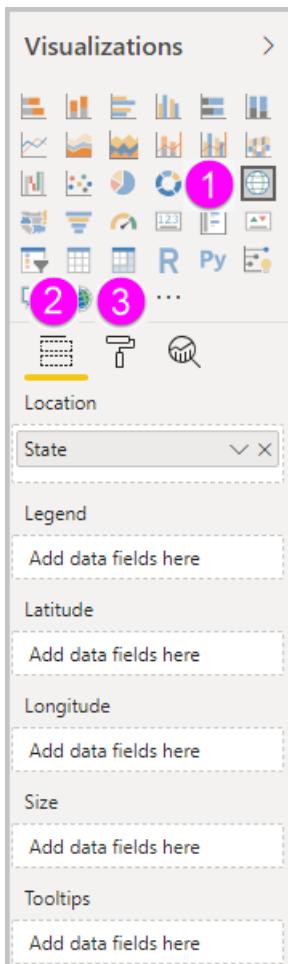
To create a simple visualization, just select any field in the fields list, or drag the field from the **Fields** list onto the canvas. For example, drag the

State field from Best states for sunglass sales onto the canvas, and see what happens.



Look at that! Power BI Desktop recognized that the State field contained geolocation data and automatically created a map-based visualization. The visualization shows data points for the 40 states from your data model.

The Visualizations pane shows information about the visualization and lets you modify it.



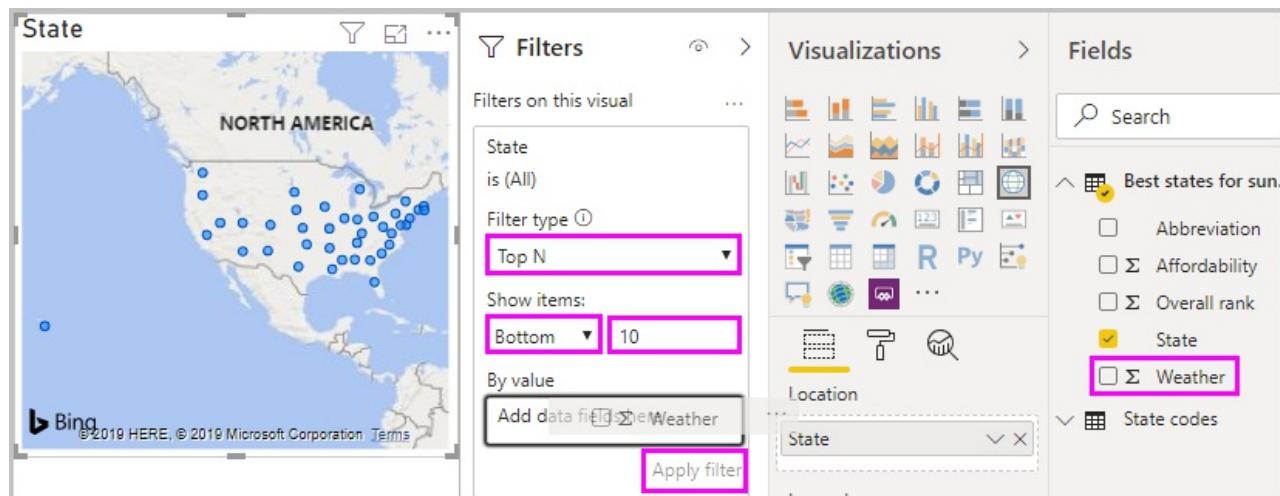
1. The icons show the type of visualization created. You can change the type of a selected visualization by selecting a different icon, or create a new visualization by selecting an icon with no existing visualization selected.

2. The **Fields** option in the **Visualization** pane lets you drag data fields to **Legend** and other field wells in the pane.
3. The **Format** option lets you apply formatting and other controls to visualizations.

The options available in the **Fields** and **Format** areas depend on the type of visualization and data you have.

You want your map visualization to show only the top 10 weather states. To show only the top 10 states, in the **Filters** pane, hover over **State is (All)** and expand the arrow that appears. Under **Filter type**, drop down and select **Top N**. Under **Show items**, select **Bottom**, because you want to show the items with the lowest numerical ranks, and enter **10** in the next field.

Drag the **Weather** field from the **Fields** pane into the **By value** field, and then select **Apply filter**.



You now see only the top 10 weather states in the map visualization.

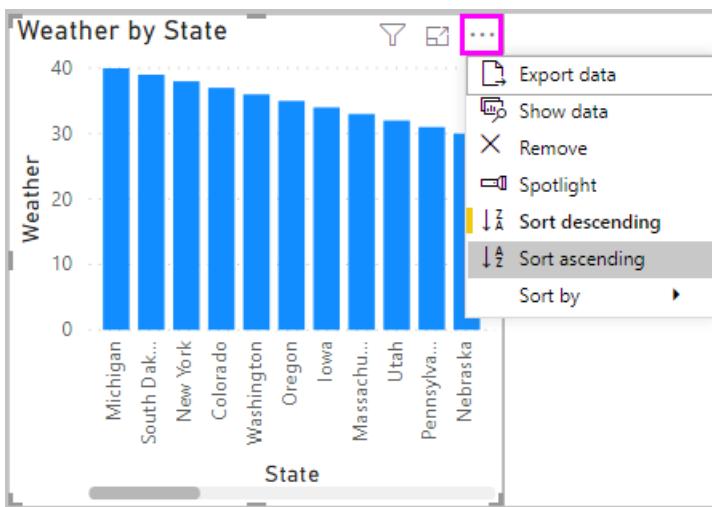
Retitle your visualization by selecting the **Format** icon in the **Visualization** pane, selecting **Title**, and typing *Top 10 weather states* under **Title text**.

The screenshot shows the Power BI desktop interface. On the left is a map of North America with blue dots representing the top 10 weather states. The title 'Top 10 weather states' is at the top. The 'Filters' pane on the right shows a filter for 'State' set to 'bottom 10 by Weather' with 'Top N' selected and 'Bottom 10' shown. The 'Visualizations' pane lists various chart types, with the column chart icon highlighted with a pink box. The 'Title' section in the 'Visualizations' pane also has a pink box around the text 'Top 10 weather states'.

To add a visualization that shows the names of the top 10 weather states and their ranks from 1 to 10, select a blank area of the canvas and then select the **Column chart** icon from the **Visualization** pane. In the **Fields** pane, select **State** and **Weather**. A column chart shows the 40 states in your query, ranked from highest to lowest numerical rank, or worst to best weather.

The screenshot shows a column chart titled 'Weather by State'. The Y-axis is labeled 'Weather' and ranges from 0 to 40. The X-axis is labeled 'State' and lists Michigan, South Dak..., New York, Colorado, Washington, Oregon, Iowa, Massachu..., Utah, Pennsylva..., and Nebraska. The chart shows that Michigan has the highest value, followed by South Dakota, New York, Colorado, Washington, Oregon, Iowa, Massachusetts, Utah, Pennsylvania, and Nebraska. The 'Visualizations' pane shows the column chart icon highlighted with a pink box. The 'Fields' pane on the right shows 'State' and 'Weather' selected under 'Best states for sun...', both highlighted with pink boxes.

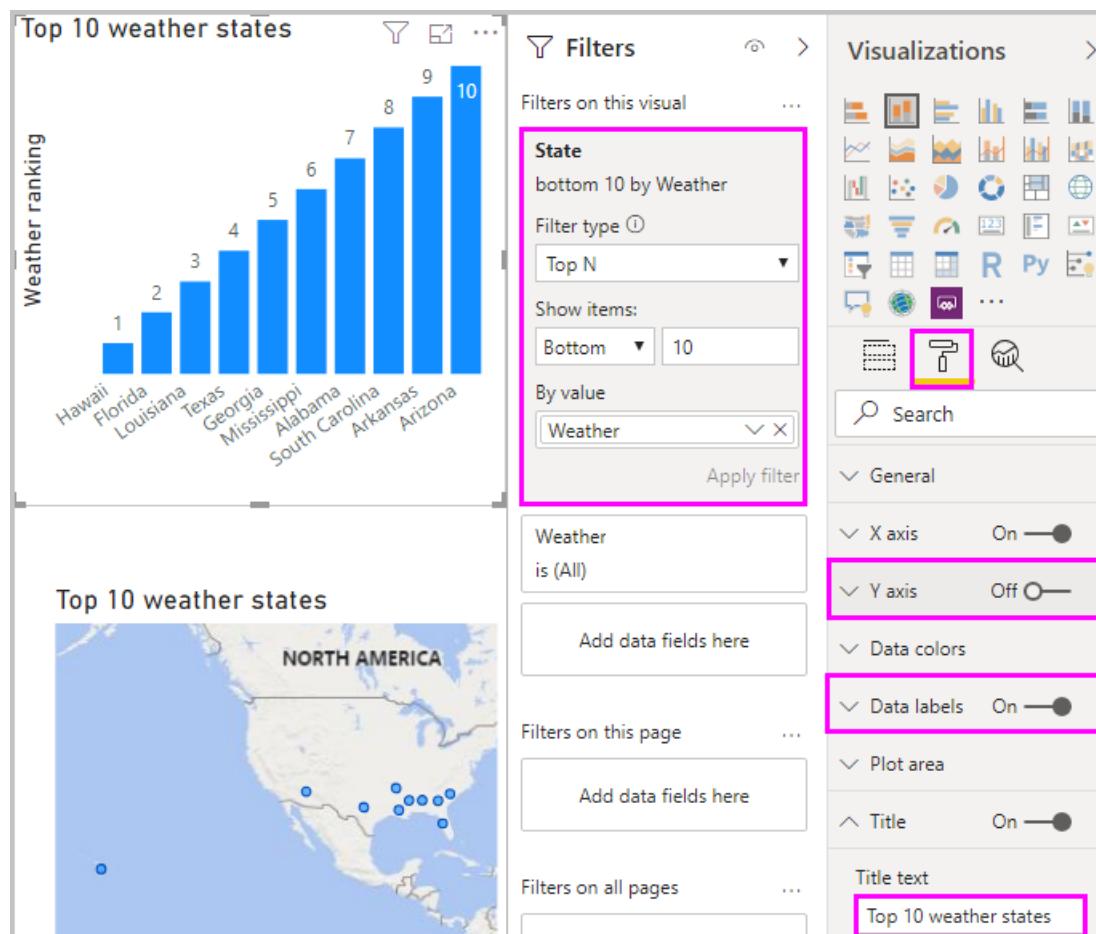
To switch the order of the ranking so that number 1 appears first, select the **More options** ellipsis at the upper right of the visualization, and select **Sort ascending** from the menu.



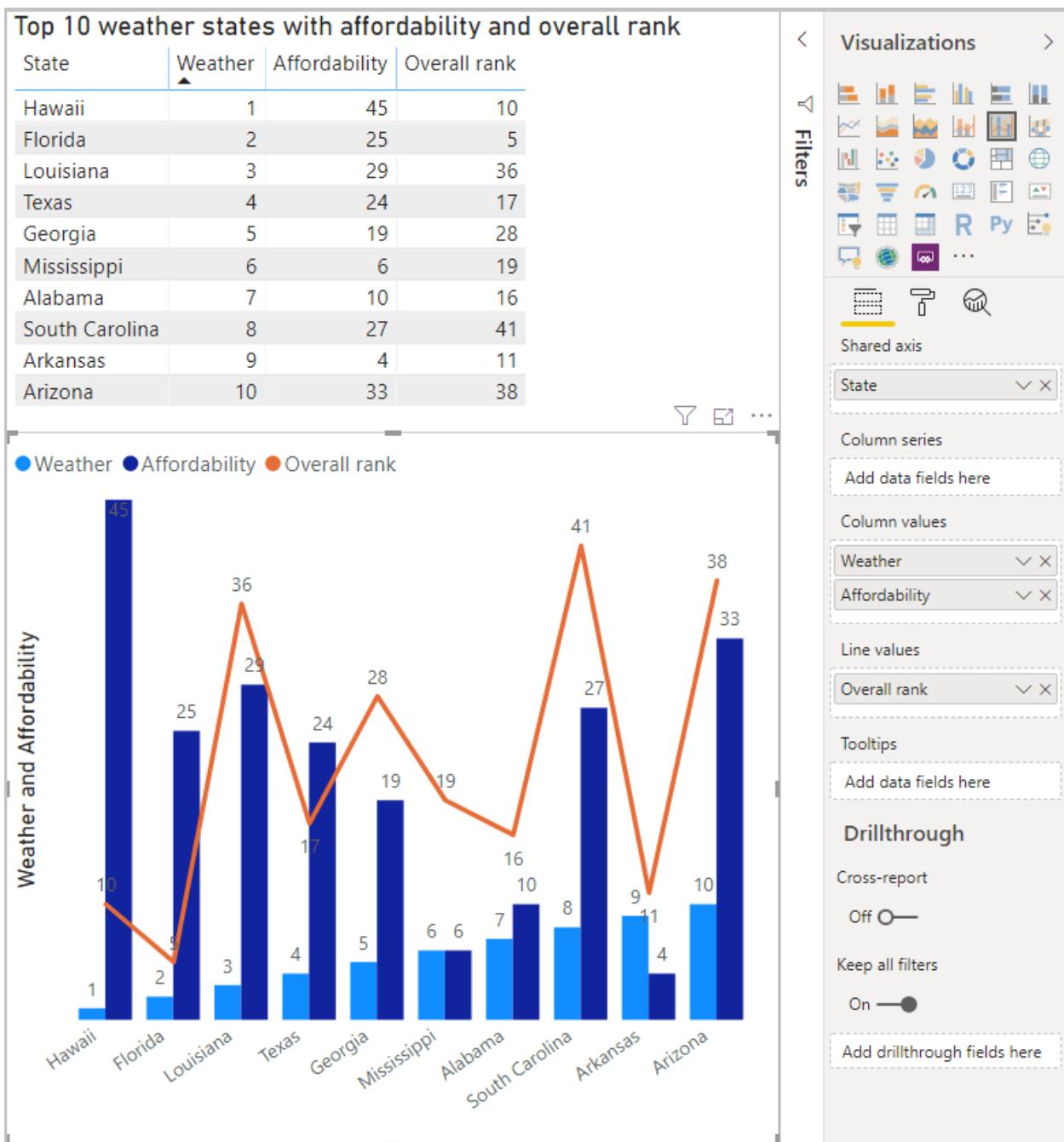
To limit the table to the top 10 states, apply the same bottom 10 filter as you did for the map visualization.

Retitle the visualization the same way as for the map visualization. Also in the **Format** section of the **Visualization pane**, change **Y axis > Axis title** from **Weather** to **Weather ranking** to make it more understandable. Then, turn the **Y axis selector** to **Off**, and turn **Data labels** to **On**.

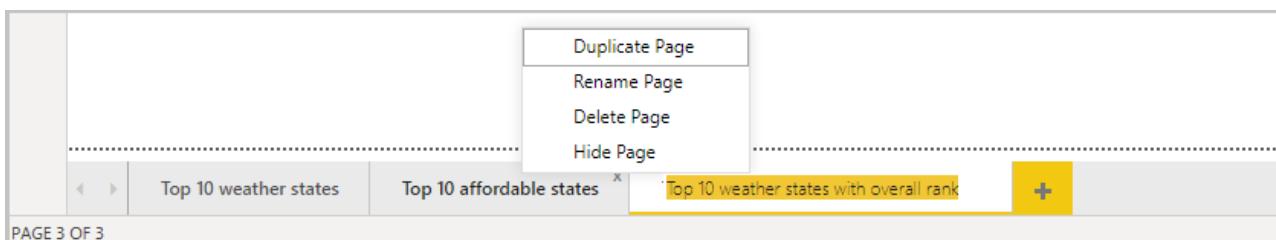
Now, the top 10 weather states appear in ranked order along with their numerical rankings.



You can make similar or other visualizations for the **Affordability** and **Overall ranking** fields, or combine several fields into one visualization. There are all sorts of interesting reports and visualizations you can create. These **Table** and **Line** and **clustered column chart** visualizations shows the top 10 weather states along with their affordability and overall rankings:



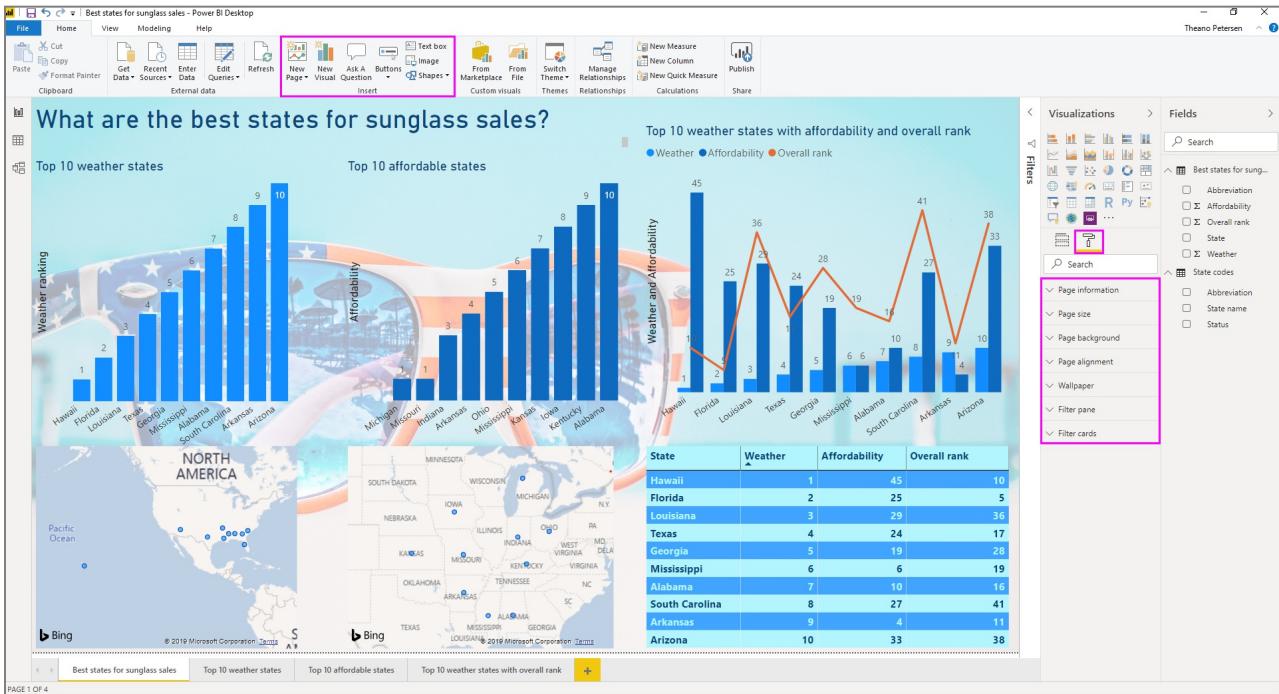
You can show different visualizations on different report pages. To add a new page, select the + symbol next to the existing pages on the pages bar, or select **Insert > New Page** in the **Home** tab of the ribbon. To rename a page, double-click the page name in the pages bar, or right-click it and select **Rename Page**, and then type the new name. To go to a different page of the report, select the page from the pages bar.



You can add text boxes, images, and buttons to your report pages from the **Insert** group of the **Home** tab. To set formatting options for visualizations, select a visualization and then select the **Format** icon in the **Visualizations** pane. To configure page sizes, backgrounds, and other page information, select

the Format icon with no visualization selected.

When you finish creating your pages and visualizations, select File > Save and save your report.

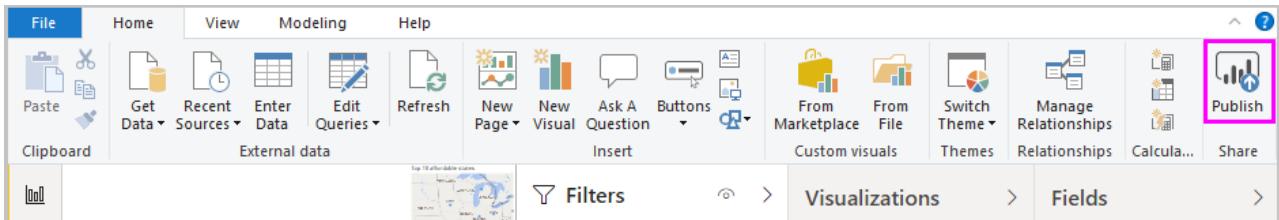


For more information about reports, see [Report View in Power BI Desktop](#).

Share your work

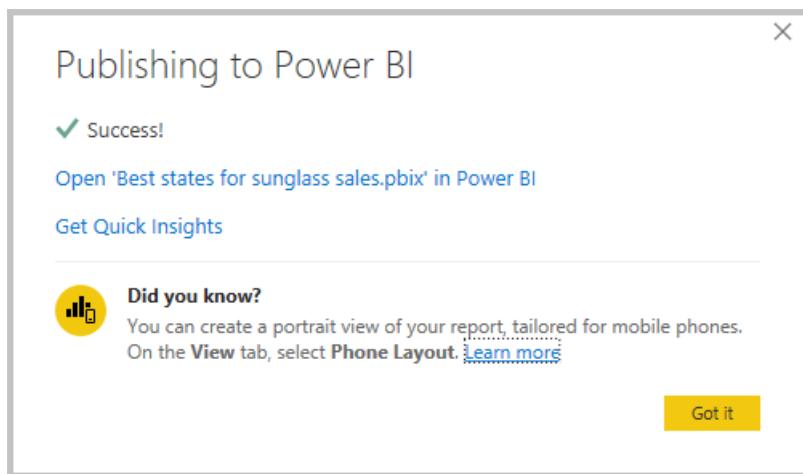
Now that you have a Power BI Desktop report, you can share it with others. There are a few ways to share your work. You can distribute the report .pbix file like any other file, you can upload the .pbix file from the Power BI service, or you can publish directly from Power BI Desktop to the Power BI service. You must have a Power BI account to be able to publish or upload reports to Power BI service.

To publish to the Power BI service from Power BI Desktop, from the Home tab of the ribbon, select Publish.



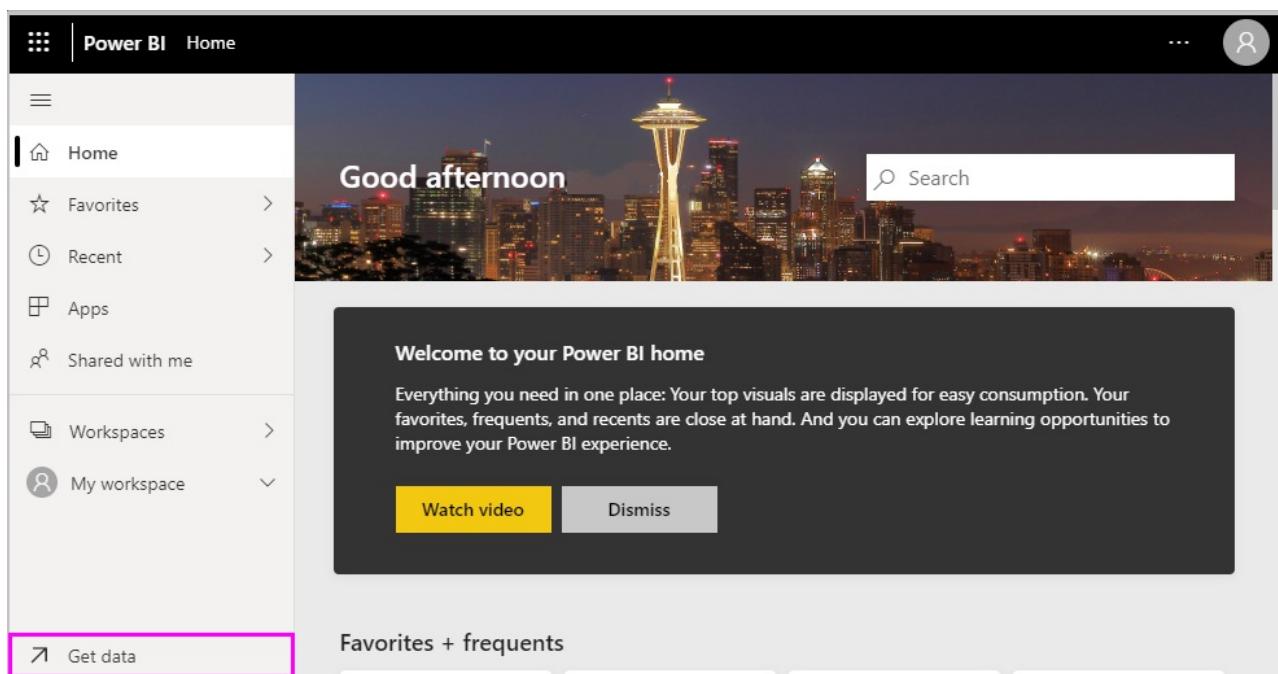
You may be prompted to sign in to Power BI, or to select a destination.

When the publish process is complete, you see the following dialog:



When you select the link to open the report in Power BI, your report opens in your Power BI site under **My workspace > Reports**.

Another way to share your work is to load it from within the **Power BI** service. Go to <https://app.powerbi.com> to open Power BI in a browser. On your Power BI Home page, select **Get data** at lower left to start the process of loading your Power BI Desktop report.



On the next page, select **Get** from the **Files** section.

Get Data

Need more guidance? [Try this tutorial](#) or [watch a video](#)

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More ways to create your own content

[Samples](#)

[Organizational Content Packs](#)

[Partner Showcase](#)

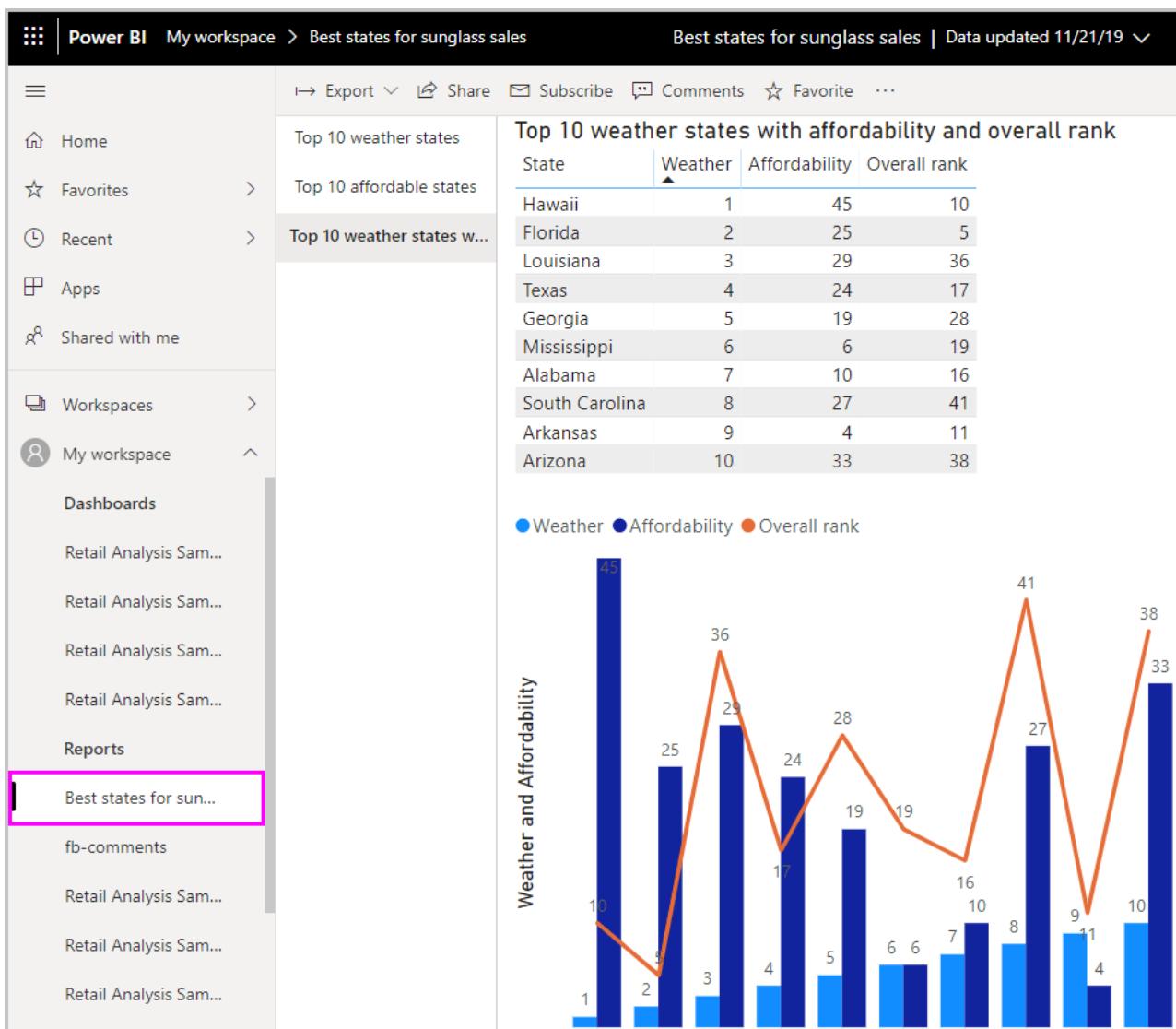
[Service Content Packs](#)

Build on existing datasets

[Published datasets](#)

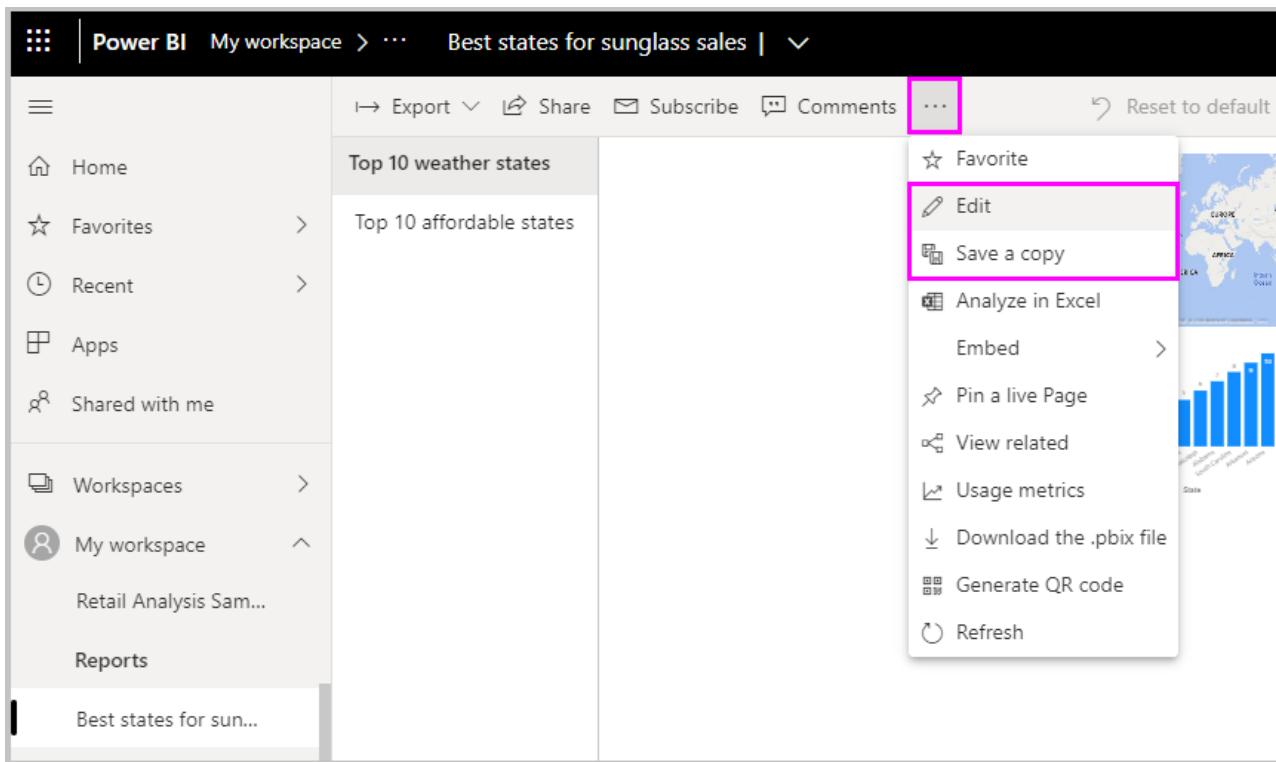
On the next page, select **Local File**. Browse to and select your Power BI Desktop .pbix file, and select **Open**.

After the file imports, you can see it listed under **My workspace > Reports** in the left pane of the Power BI service.



When you select the file, the first page of the report appears. You can select different pages from the tabs at the left of the report.

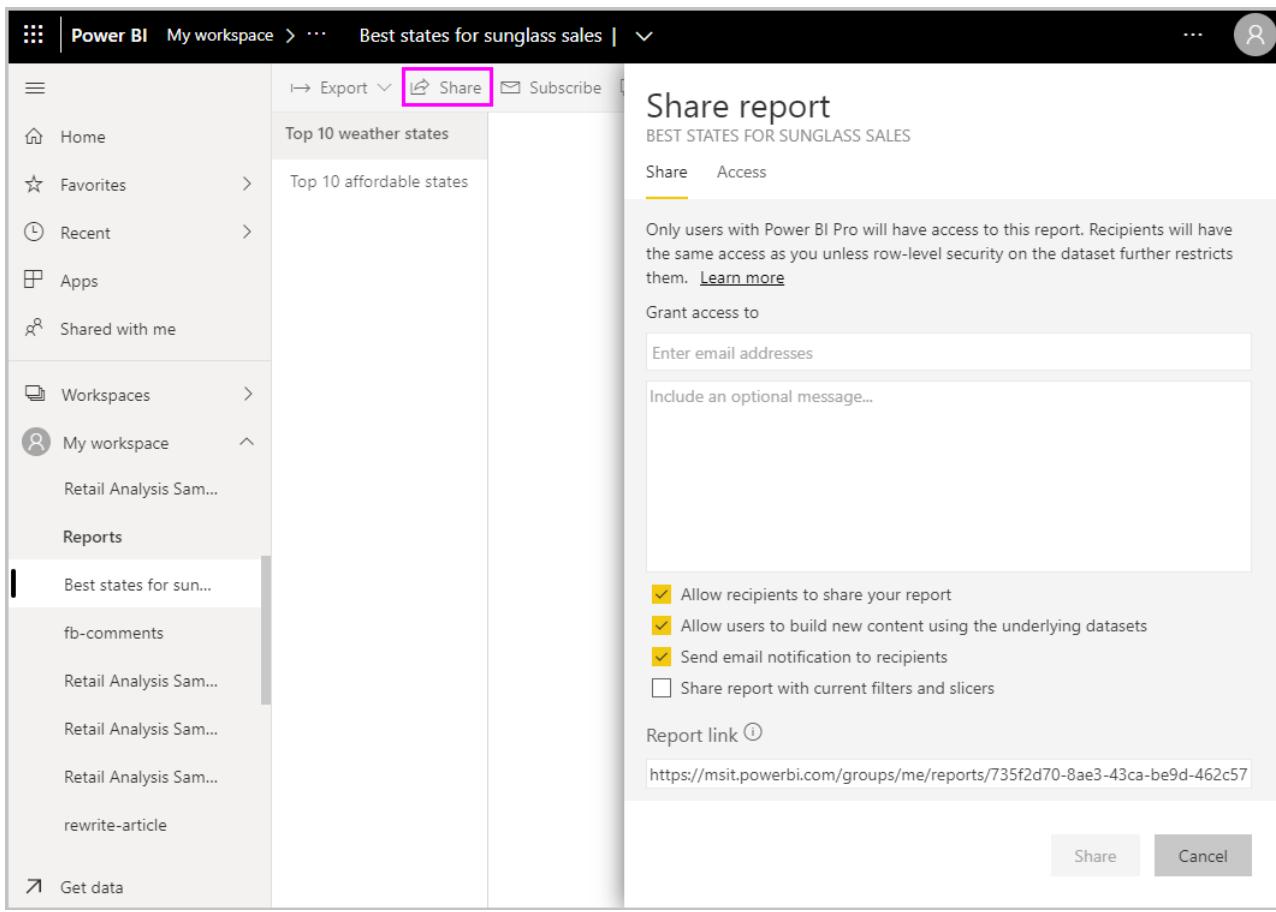
You can make changes to a report in the Power BI service by selecting More options > Edit from the top of the report canvas. To save your changes, select Save a copy.



There are all sorts of interesting visuals you can create from your report in the **Power BI** service, which you can pin to a *dashboard*. To learn about dashboards in the **Power BI** service, see [Tips for designing a great dashboard](#). For more information about creating, sharing, and modifying dashboards, see [Share a dashboard](#).

To share a report or dashboard, select **Share** at the top of the open report or dashboard page, or select the **Share** icon next to the report or dashboard name in the **My workspace > Reports** or **My workspace > Dashboards** lists.

Complete the **Share report** or **Share dashboard** screen to send an email or get a link to share your report or dashboard with others.



There are many compelling data-related mash-ups and visualizations you can do with Power BI Desktop and the Power BI service.

Next steps

Power BI Desktop supports connecting to a diagnostics port. The diagnostics port allows other tools to connect to and perform traces for diagnostic purposes. When using the diagnostics port, *making any changes to the model is not supported. Changes to the model may lead to corruption and data loss.*

For more information on the many capabilities of Power BI Desktop, check out the following resources:

- [Query overview in Power BI Desktop](#)
- [Data sources in Power BI Desktop](#)
- [Connect to data in Power BI Desktop](#)
- [Tutorial: Shape and combine data with Power BI Desktop](#)
- [Common query tasks in Power BI Desktop](#)

Supported languages and countries/regions for Power BI

5 minutes to read • [Edit online](#)

This article lists supported languages and countries/regions for the Power BI service, Power BI Desktop, and Power BI documentation.

Countries and regions where Power BI is available

For a list of countries and regions where Power BI is available, see the [international availability list](#).

Languages for the Power BI service

The Power BI service (in the browser) is available in the following 44 languages:

- Arabic
- Basque – Basque
- Bulgarian – български
- Catalan – català
- Chinese (Simplified) – 简体中文
- Chinese (Traditional) – 繁體中文
- Croatian – hrvatski
- Czech – čeština
- Danish – dansk
- Dutch – Nederlands
- English – English
- Estonian – eesti
- Finnish – suomi
- French – français
- Galician – galego
- German – Deutsch
- Greek – Ελληνικά
- Hebrew
- Hindi – हिन्दी
- Hungarian – magyar
- Indonesian – Bahasa Indonesia
- Italian – italiano
- Japanese – 日本語
- Kazakh – Қазақ
- Korean – 한국어
- Latvian – latviešu
- Lithuanian – lietuvių
- Malay – Bahasa Melayu
- Norwegian (Bokmål) – norsk (bokmål)

- Polish - Polski
- Portuguese (Brazil) - Português
- Portuguese (Portugal) - português
- Romanian - română
- Russian - Русский
- Serbian (Cyrillic) - српски
- Serbian (Latin) - srpski
- Slovak - slovenčina
- Slovenian - slovenski
- Spanish - español
- Swedish - svenska
- Thai - ຖ້າວ
- Turkish - Türkçe
- Ukrainian - українська
- Vietnamese - Tiếng Việt

what's translated

Power BI translates menus, buttons, messages, and other elements of the experience into your language. Report content such as automatically generated titles, filters, and tooltips are translated, but your data isn't automatically translated. Inside reports, the layout of visuals doesn't change if you're using a right-to-left language such as Hebrew.

At this time, a few features are available in English only:

- Dashboards and reports that Power BI creates when you connect to services such as Microsoft Dynamics CRM, Google Analytics, and Salesforce. You can still create your own dashboards and reports in your own language.
- Exploring your data with Q&A.

Stay tuned as we work to bring additional features to other languages.

Choose your language in the Power BI service

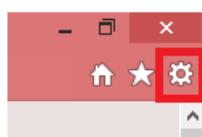
1. In the Power BI service, select the **Settings** icon  > **Settings**.
2. On the **General** tab > **Language**.
3. Select your language > **Apply**.

Choose your language in the browser

Power BI detects your language based on the language preferences on your computer. The way you access and change these preferences may vary depending on your operating system and browser. Here's how to access these preferences from Internet Explorer and Google Chrome.

Internet Explorer (version 11)

1. Click the **Tools** button in the top-right corner of your browser window:



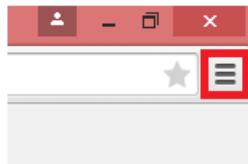
2. Click **Internet Options**.

3. In the Internet Options dialog, on the General tab under Appearance, click

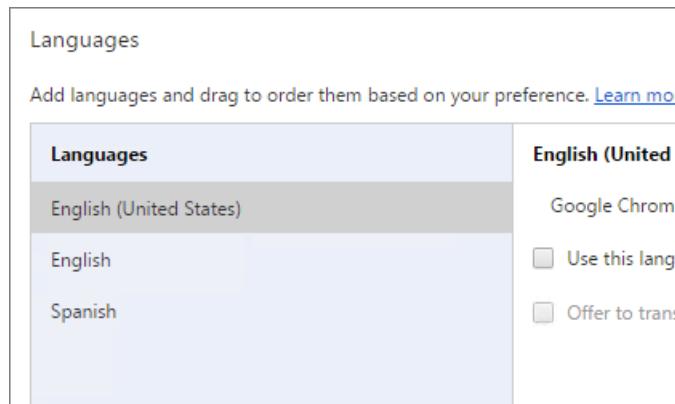
the **Languages** button.

Google Chrome (version 42)

1. Click the menu button in the top-right corner of your browser window:

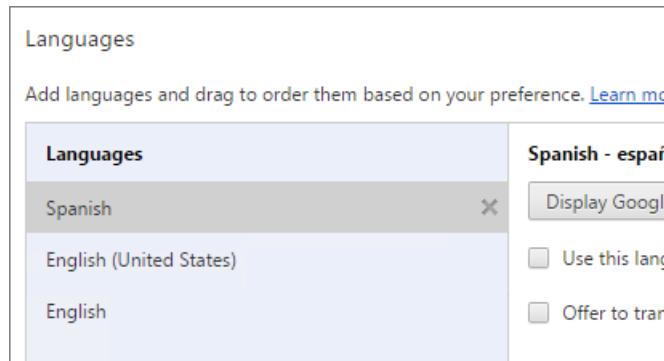


2. Click **Settings**.
3. Click **Show advanced settings**.
4. Under Languages, click the **Language and input settings** button.
5. Click **Add**, select a language, and click **OK**.



The new language is at the end of the list.

6. Drag the new language to the top of the list, and click **Display Google Chrome in this language**.



You may need to close and reopen your browser to see the change.

Choose the language or locale of Power BI Desktop

You have two ways of getting Power BI Desktop: You can download it as a standalone installer, or install it from the Windows Store.

- When you install Power BI Desktop from the Windows Store, it installs all the languages and by default shows the language that corresponds to the Windows default language.
- When you download Power BI Desktop as a standalone installer, you choose the default language when you run the installer, and can change it at a later

date.

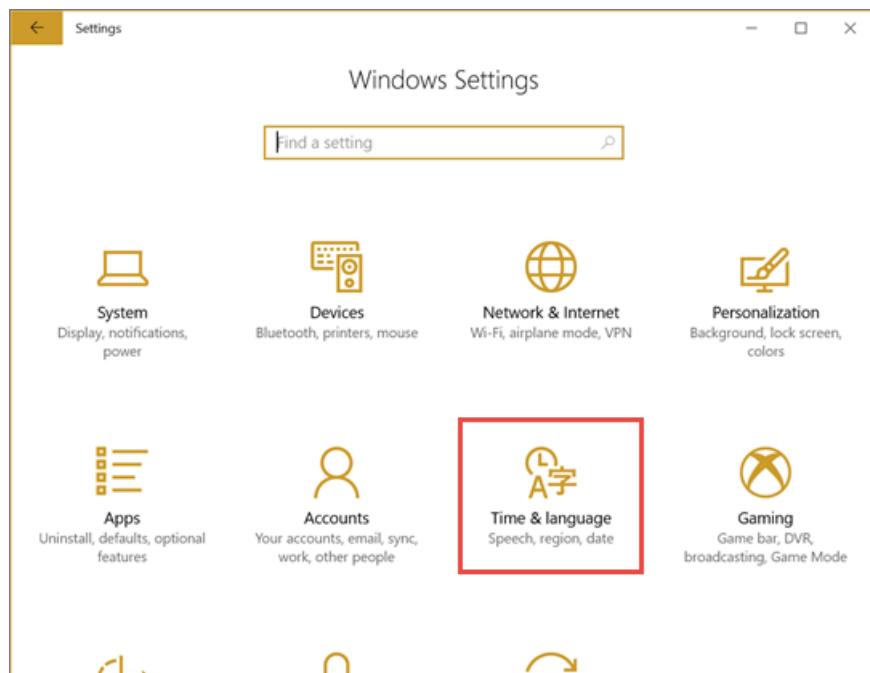
- You can also choose a locale to be used when importing data for a specific report.

NOTE

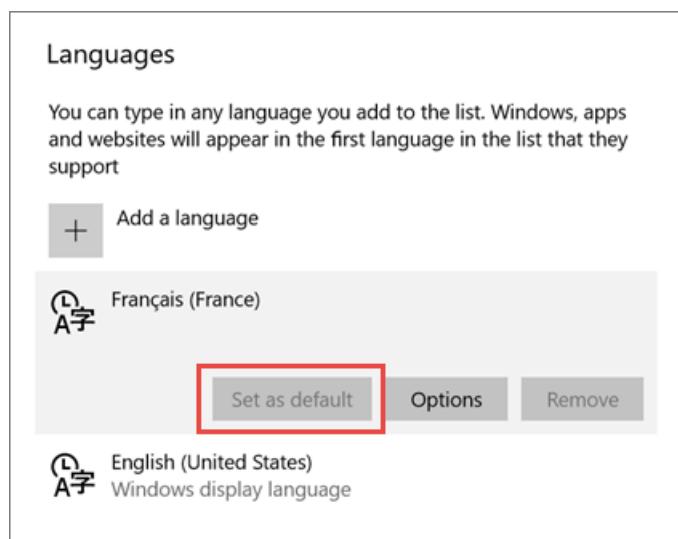
If you're installing the version of Power BI Desktop that's optimized for Power BI Report Server, you choose the language when you download. See [Install Power BI Desktop optimized for Power BI Report Server](#) for details.

Choose a language for Power BI Desktop

1. Install Power BI Desktop from the Windows Store, or as a standalone installer.
2. To change the language, on your computer search for Windows Settings.
3. Select Time & language.



4. Select Region & language, select a language, and select Set as default.



The next time you start Power BI Desktop it will use the language you set as the default.

To override the default and use Power BI Desktop in a language other than your Windows language do the following.

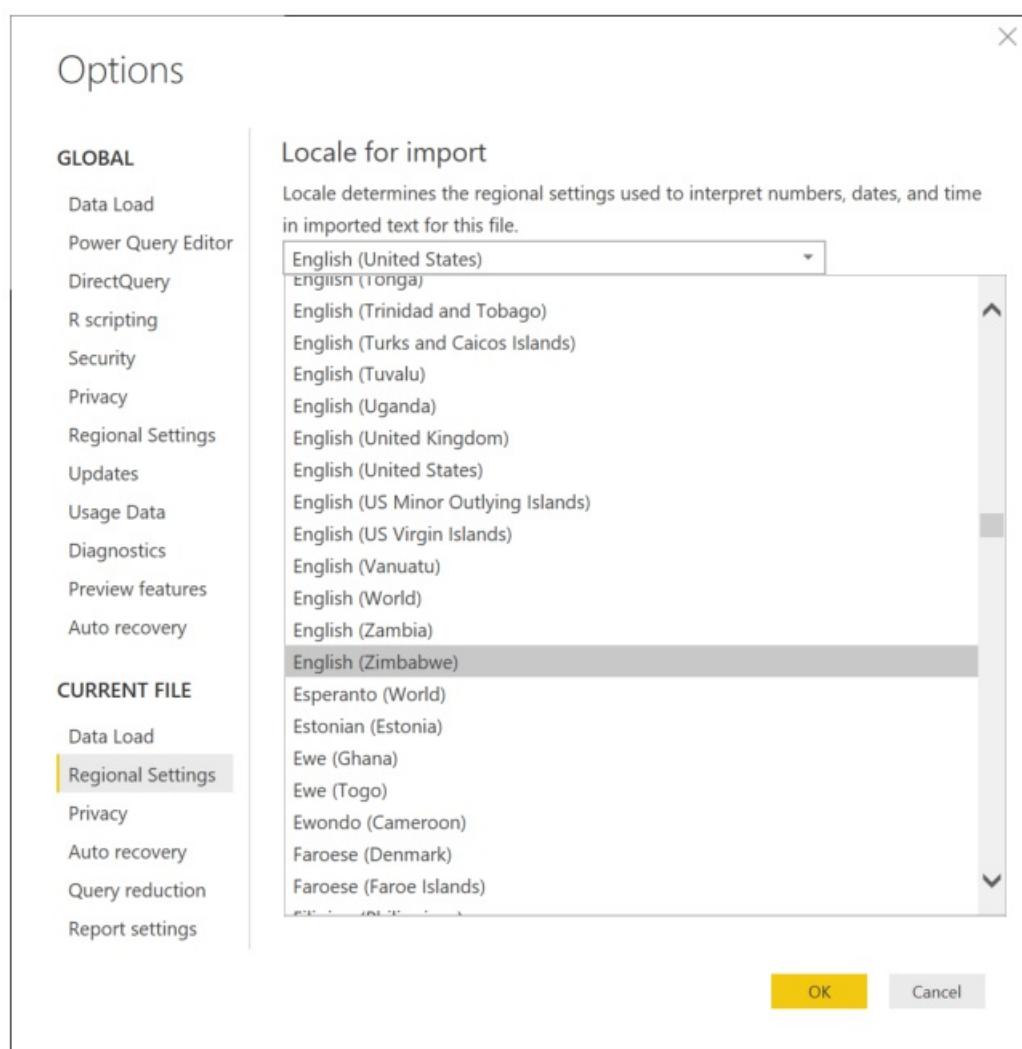
1. In Power BI Desktop, go to **File > Options and settings > Options**.
2. Under **Global Settings**, select **Regional Settings**.
3. In the **Application Language** box, select a different locale.

Language support in Power BI Desktop is limited to the languages displayed in the Application Language dropdown.

Choose the Locale for importing data into Power BI Desktop

Whether you download Power BI Desktop or install it from the Windows Store, you can choose a locale for a specific report to be something other than the locale in your version of Power BI Desktop. The locale changes the way data is interpreted when it's imported from your data source, for example whether "3/4/2017" is interpreted as 3 April or March 4.

1. In Power BI Desktop, go to **File > Options and settings > Options**.
2. Under **Current file**, select **Regional Settings**.
3. In the **Locale for import** box, select a different locale.



4. Select **OK**.

Choose the language for the model in Power BI Desktop

Besides setting the language for the Power BI Desktop application, you can also set the model language. The model language affects chiefly two things:

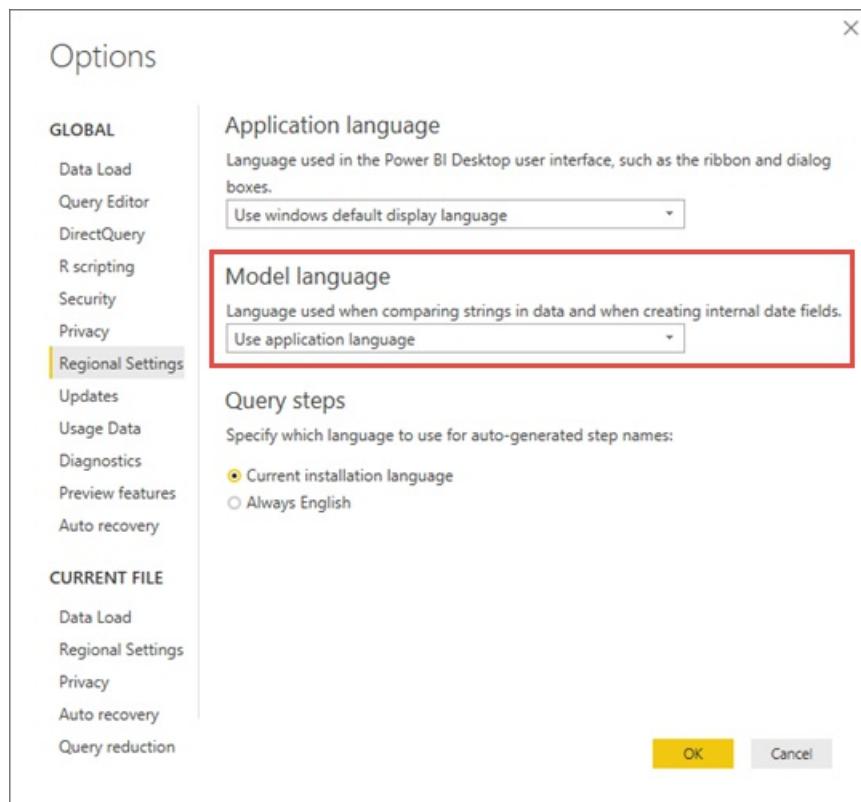
- How we compare and sort strings. For example, because Turkish has two of the letter i, depending on the collation of your database, the two can end up in different orders when sorting.
- The language Power BI Desktop uses when creating hidden date tables from date fields. For example, fields are called Month/Monat/Mois, etc.

NOTE

Power BI's model currently uses a locale that is not case-sensitive (or kana-sensitive) so "ABC" and "abc" will be treated as equivalent. If "ABC" is loaded into the database first, other strings that differ only by case such as "Abc" won't be loaded as a separate value.

Here's how to set the model language.

1. In Power BI Desktop, go to **File > Options and settings > Options**.
2. Under **Global**, select **Regional Settings**.
3. In the **Model language** box, select a different language.



NOTE

Once created, the language of a Power BI model can't be changed.

Languages for the help documentation

Help is localized in these 10 languages:

- Chinese (Simplified) - 中文(简体)
- Chinese (Traditional) - 中文(繁体)
- French - français

- German - Deutsch
- Italian - italiano
- Japanese - 日本語
- Korean - 한국어
- Portuguese (Brazil) - Português
- Russian - Русский
- Spanish - español

Next steps

- Are you using one of the Power BI mobile apps? See [Supported languages in the Power BI mobile apps](#) for details.
- Questions? Try asking the [Power BI Community](#).
- Still have an issue? Visit the [Power BI support page](#).

Supported browsers for Power BI

2 minutes to read • [Edit online](#)

Power BI runs in these browsers:

- Microsoft Edge
- Internet Explorer 11. Some advanced features, such as lineage view, aren't supported in Internet Explorer. See [Data lineage \(preview\)](#) for details.
- Chrome desktop latest version
- Safari Mac latest version
- Firefox desktop latest version. Firefox may change the fonts used in Power BI

These browsers are supported on all platforms where they're available.

NOTE

Power BI doesn't run in any browsers in iOS10 or previous versions.

Next steps

- [What is Power BI?](#)
- Try asking the [Power BI Community](#)
- Still have an issue? Visit the [Power BI support page](#)

Power BI videos

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We have a YouTube channel for Power BI! You can visit [our channel](#) and, if you're new to Power BI a good place to start is the [Analyze and Visualize data with Power BI playlist](#).

Here are a few videos from that playlist to get you started.

- Overview of Power BI service and Power BI Desktop.

<https://www.youtube.com/embed/12wy4XgQIu0>

- Collaborating and sharing.

<https://www.youtube.com/embed/5DABLEJzQYM>

- Overview of Power BI mobile

<https://www.youtube.com/embed/07uBWhaCo78>

- Power BI for developers

<https://www.youtube.com/embed/47uXJW1GIUY>

Watch some of our new uploads

- [Date slicer](#)
- [Custom visualizations](#)
- [Alerts in the Power BI service](#)

More videos

Check out the following collection of sources and content for more videos.

- [Guided Learning for Power BI](#) - a sequential learning tour of Power BI, in bite-size pieces

Next steps

[What is Power BI?](#)

More questions? [Try asking the Power BI Community](#)

Power BI webinars

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No webinars scheduled yet. Check back soon for more upcoming events.

[Upcoming webinars from the Power BI community](#)

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by Gayle Sheppard and John Macintyre

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How to Become an Insights-Driven Business

by Amir Netz, Microsoft and Boris Evelson, Forrester

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Three Ways AI Is Changing BI

by Justyna Lucznik

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Power BI and the Future of Modern and Enterprise BI

by Arun Ulag and Amir Netz

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Nine Trends Shaping the Future of Big Data Analytics

by Vijay Gopalakrishnan

[Register and watch now](#)

Getting Started with Power BI

by Miguel Martinez

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Get Started with the Power BI Mobile App

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Learn tips, tricks & best practices to achieve more in your day-to-day work using Office 365.
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Power BI Desktop videos

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Power BI Desktop has a [YouTube channel](#)!

See a high-level overview of Power BI Desktop, from getting data and building a report, to sharing your report with others:

<https://www.youtube.com/embed/Qgam9M8I0xA>

Learn how to build stunning reports using Power BI Desktop:

<https://www.youtube.com/embed/IMAsitQ2cAc>

Import, reshape, and transform data using Power Query Editor:

<https://www.youtube.com/embed/ByIUX-HmQbw>

Select the following links to see all the videos available at the Power BI YouTube channel:

- [Get started with Power BI Desktop](#)
- [Create a report in Power BI Desktop](#)
- [Use the Power Query Editor](#)
- [Create relationships between tables](#)
- [Publish from Power BI Desktop to the Power BI service](#)
- [Add a calculated column](#)

Previous monthly updates to Power BI Desktop

89 minutes to read • [Edit online](#)

This article describes previous updates to **Power BI Desktop**. For the most current month's release, check out [Power BI Desktop latest updates](#).

Get the latest version of Power BI Desktop from the [Download Center](#). If you're running Windows 10, you can also get Power BI Desktop from Microsoft Store on Windows 10. Regardless of how you install Power BI Desktop, the monthly versions are the same, although the version numbering may differ. For more information about downloading and installing Power BI Desktop, see [Get Power BI Desktop](#).

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following sections describe previous months' updates to **Power BI Desktop**.

February 2020 Update (2.78.5740.642)

We loved our February updates, and felt our new features were better than a heart-shaped box of chocolates.

IMPORTANT

Beginning with the September 2019 release, Power BI Desktop is released only as a single .exe file, which contains all supported languages. The .msi version is no longer being released.

The links beside each feature in the Power BI Desktop update list are interpreted as follows:

- [blog]: Most features are explained in a section in the monthly update blog post.
- [video]: Some features have a video excerpt that discusses the feature, which plays in a new browser tab.
- [article]: Some features have an article that provides more detail.
- The remaining features are self-explanatory and don't need an article or video.

The following updates were new to Power BI Desktop this month:

Data management

- Incremental refresh is now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Reporting

- Hierarchical slicer (preview) [\[video\]](#) [\[blog\]](#)
- Updates to the new ribbon (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Modeling

- New DAX functions: FirstNonBlankValue, LastNonBlankValue [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Visuals

- New custom visuals [\[video\]](#) [\[blog\]](#)

Template apps

- Microsoft 365 usage analytics [\[video\]](#) [\[blog\]](#)
- NFL analytics by P3 [\[video\]](#) [\[blog\]](#)
- Acterys for Quickbooks, Zero and WorkflowMax [\[video\]](#) [\[blog\]](#)

Data preparation

- Query diagnostics - support for users who aren't administrators [\[video\]](#) [\[blog\]](#)

Data connectivity

- MicroStrategy connector (generally availability) [\[video\]](#) [\[blog\]](#)
- FHIR connector (generally availability) [\[video\]](#) [\[blog\]](#)
- Additional connectors: Factset, TIBCO, Jamf Pro, Asana [\[video\]](#) [\[blog\]](#)

For detailed information about each of these new features, see [Power BI Desktop feature summary blog post](#).

Check out [what's new in the Power BI service](#), and [what's new in the mobile apps for Power BI](#).

NOTE

See the [data sources available to Power BI Desktop](#). Our list is always growing, so check back often.

Power BI Desktop monthly update video

The following video describes each of these updates. You can also watch this video from the blog post:

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

- Previous releases of Power BI Desktop are not being serviced - you should always use the most recent release for the latest features and updates.
- It may not be possible to open files created or saved in newer releases of Power BI Desktop with previous versions of Power BI Desktop.
- If you receive a warning when loading a report saved in a newer release of

Power BI Desktop, then save that report in the previous version, you lose any information related to new features.

- We only archive the English versions of Power BI Desktop.

Select the following links to download this earlier version:

- [February 2020 version of Power BI Desktop - 32-bit](#)
- [February 2020 version of Power BI Desktop - 64-bit](#)

December 2019 Update (2.76.5678.661)

Our December updates were as fun as a bobsled ride down a snow-covered hill.

IMPORTANT

Beginning with the September 2019 release, Power BI Desktop is released only as a single .exe file, which contains all supported languages. The .msi version is no longer being released.

The links beside each feature in the Power BI Desktop update list are interpreted as follows:

- [blog]: Most features are explained in a section in the monthly update blog post.
- [video]: Some features have a video excerpt that discusses the feature, which plays in a new browser tab.
- [article]: Some features have an article that provides more detail.
- The remaining features are self-explanatory and don't need an article or video.

The following updates were new to Power BI Desktop this month:

Reporting

- Theming updates (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Export the current theme (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Setting table column or matrix value as a custom URL [\[video\]](#) [\[blog\]](#)
- KPI visual formatting settings [\[video\]](#) [\[blog\]](#)
- New decomposition tree formatting [\[video\]](#) [\[blog\]](#)
- Filter pane toggle button in the new ribbon [\[video\]](#) [\[blog\]](#)
- Automatic page refresh query details [\[video\]](#) [\[blog\]](#)

Analytics

- Load more for Analyze insights [\[video\]](#) [\[blog\]](#)
- New DAX function: Quarter [\[video\]](#) [\[blog\]](#)

Visuals

- Personalizing the Visuals pane (generally availability) [\[video\]](#) [\[blog\]](#)
- New Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- Azure Data Lake Storage Gen2 connector (generally availability) [\[video\]](#) [\[blog\]](#)
- Power Platform Dataflows connector (generally availability) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- PostgreSQL connector now includes the Npgsql provider [\[video\]](#) [\[blog\]](#)

- AtScale connector (general availability) [\[video\]](#) [\[blog\]](#)
- Azure Time Series Insights connector [\[video\]](#) [\[blog\]](#)
- Data Virtuality connector [\[video\]](#) [\[blog\]](#)
- Zucchetti HR Infinity connector [\[video\]](#) [\[blog\]](#)

Data preparation

- Updates to AI Insights functions (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Template apps

- Omnichannel insights for Dynamics 365 [\[video\]](#) [\[blog\]](#)
- Customer service analytics for Dynamics 365 [\[video\]](#) [\[blog\]](#)
- Microsoft Forms Pro for Customer Services [\[video\]](#) [\[blog\]](#)

For detailed information about each of these new features, see [Power BI Desktop December 2019 feature summary](#).

Check out [what's new in the Power BI service](#), and [what's new in the mobile apps for Power BI](#).

NOTE

See the [data sources available to Power BI Desktop](#). Our list is always growing, so check back often.

Power BI Desktop monthly update video

The following video describes each of these updates. You can also watch this video from the blog post:

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

- Previous releases of Power BI Desktop are not being serviced - you should always use the most recent release for the latest features and updates.
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- If you receive a warning when loading a report saved in a newer release of Power BI Desktop, then save that report in the previous version, you lose any information related to new features.
- We only archive the English versions of Power BI Desktop.

Select the following links to download this earlier version:

- [December 2019 version of Power BI Desktop - 32-bit](#)
- [December 2019 version of Power BI Desktop - 64-bit](#)

November 2019 Update (2.75.5649.341)

Our November updates were as welcome as a happy family gathering.

IMPORTANT

Beginning with the September 2019 release, Power BI Desktop is released only as a single .exe file, which contains all supported languages. The .msi version is no longer being released.

The links beside each feature in the Power BI Desktop update list are interpreted as follows:

- [blog]: Most features are explained in a section in the monthly update blog post.
- [video]: Some features have a video excerpt that discusses the feature, which plays in a new browser tab.
- [article]: Some features have an article that provides more detail.
- The remaining features are self-explanatory and don't need an article or video.

The following updates were new to Power BI Desktop this month:

User experience

- Updated ribbon (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Reporting

- Decomposition tree visual (preview) [\[video\]](#) [\[blog\]](#)

Analytics

- Conditionally format button formatting [\[video\]](#) [\[blog\]](#)

Visuals

- ArcGIS Maps for Power BI update [\[video\]](#) [\[blog\]](#)
- New xviz visuals [\[video\]](#) [\[blog\]](#)
- ZoomCharts Drill-Down Waterfall visual [\[video\]](#) [\[blog\]](#)
- Financial Reporting Matrix by Profitbase [\[video\]](#) [\[blog\]](#)
- Distribution [\[video\]](#) [\[blog\]](#)
- Tree [\[video\]](#) [\[blog\]](#)

Data connectivity

- LinkedIn Sales Navigator connector [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Edit SAP variables experience (general availability) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Product Insights connector [\[video\]](#) [\[blog\]](#)

Data transformation

- AI functions in Power Query (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Web by Example connector - support for extracting links [\[video\]](#) [\[blog\]](#)

Template apps

- LinkedIn Sales Navigator for Sales Operations [\[video\]](#) [\[article\]](#) [\[blog\]](#)

For detailed information about each of these new features, see [Power BI Desktop November 2019 feature summary](#).

Check out [what's new in the Power BI service](#), and [what's new in the mobile apps for Power BI](#).

Power BI Desktop monthly update video

The following video describes each of these updates. You can also watch this video from the blog post:

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

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- We only archive the English versions of Power BI Desktop.

Select the following links to download this earlier version:

- [November 2019 version of Power BI Desktop - 32-bit](#)
- [November 2019 version of Power BI Desktop - 64-bit](#)

October 2019 Update (2.74.5619.621)

Our October updates were as fun as a pumpkin patch run, and more exciting than a midnight tour through a haunted mansion.

You can now [download the latest version of Power BI Desktop](#), now delivered as a single .exe file that contains all supported languages. If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

IMPORTANT

Beginning with the September 2019 release, Power BI Desktop is only released as a single .exe file that contains all supported languages. The .msi version is no longer being released.

The links beside each update mean the following:

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- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates are new to Power BI Desktop this month:

Reporting

- Automatic page refresh for DirectQuery [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Analytics

- The new Q&A visual [\[video\]](#) [\[blog\]](#)
- Improved user experience for Q&A [\[video\]](#) [\[blog\]](#)
 - Improved drop-down control
 - Red and blue underlines
 - Improved visual results
- Natural language improvements for Q&A [\[video\]](#) [\[blog\]](#)
 - Integration with Office / Bing thesaurus
 - Support for measure tables, and better handling of table names and ambiguity
- Q&A tooling (preview) [\[video\]](#) [\[blog\]](#)
 - Review questions
 - Teach Q&A
 - Review all changes made
- Support for SSAS and Azure AS, including RLS [\[video\]](#) [\[blog\]](#)

Visuals

- PowerApps visual now included by default [\[video\]](#) [\[blog\]](#)
- New xviz visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- Sagra Emigo connector generally available [\[video\]](#) [\[blog\]](#)
- Azure cost Management connector updated [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- New Workplace Analytics connector [\[video\]](#) [\[blog\]](#)

Data preparation

- Query diagnostics [\[video\]](#) [\[blog\]](#)
- Data profiling enhancements [\[video\]](#) [\[blog\]](#)

Template apps

- Project Web App [\[video\]](#) [\[blog\]](#)

Other

- New file format: .PBIDS [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Performance improvements for modeling operations [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

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- We only archive the English versions of Power BI Desktop.

Select the following links to download this earlier version:

- [October 2019 version of Power BI Desktop - 32-bit](#)
- [October 2019 version of Power BI Desktop - 64-bit](#)

September 2019 Update (2.73.5586.561)

Our September updates were like an exciting return to school - new things to learn, updates to friends we missed over the summer, and opportunities to apply what we know into better future reports.

You can now [download the latest version of Power BI Desktop](#), now delivered as a single .exe file that contains all supported languages. If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

IMPORTANT

Beginning with the September 2019 release, Power BI Desktop is only released as a single .exe file that contains all supported languages. The .msi version is no longer being released.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside

this article, by clicking on the play icon on the video image found below the list of updates.

The following updates are new to Power BI Desktop this month:

Reporting

- Color and text classes in themes [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- New default themes [\[video\]](#) [\[blog\]](#)
- Personalized visualization pane improvements (preview) [\[video\]](#) [\[blog\]](#)

Analytics

- Custom format strings [\[video\]](#) [\[blog\]](#)
- Conditional formatting for more visual formatting options [\[video\]](#) [\[blog\]](#)
- Drill-through discoverability improvement [\[video\]](#) [\[blog\]](#)
- New DAX expressions: REMOVEFILTERS and CONVERT [\[video\]](#) [\[blog\]](#)

Visuals

- PowerApps visual now generally available [\[video\]](#) [\[blog\]](#)

Data connectivity

- PostgreSQL connector enhancements [\[video\]](#) [\[blog\]](#)

Data preparation

- Copy to clipboard from data profiling [\[video\]](#) [\[blog\]](#)

Template apps

- Google Analytics report [\[blog\]](#)

Other

- Performance improvements for multi-dimensional models [\[video\]](#) [\[blog\]](#)
- Query performance improvements for DirectQuery models [\[video\]](#) [\[blog\]](#)
<https://youtu.be/neq0THnRJzo?t=1208>

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/neq0THnRJzo>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent

version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

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- We only archive the English versions of Power BI Desktop.

Select the following links to download this earlier version:

- [September 2019 version of Power BI Desktop - 32-bit](#)
- [September 2019 version of Power BI Desktop - 64-bit](#)

August 2019 Update (2.72.5556.801)

Our August updates were hot and shone brightly on the reports you create in Power BI Desktop.

You can now [download the latest version of Power BI Desktop](#), now delivered as a single .exe file that contains all supported languages. If you're running Windows 10, you can also get [Power BI Desktop](#) from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install [Power BI Desktop](#). See [this article](#) for more information.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the [Latest Updates](#) video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to [Power BI Desktop](#) this month:

Reporting

- Grouping visuals [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Filter pane migration [\[video\]](#) [\[blog\]](#)
- Icon style picker for conditional formatting of icons [\[video\]](#) [\[blog\]](#)
- Conditional formatting warnings [\[video\]](#) [\[blog\]](#)

Analytics

- Key influencers visual improvements, general availability [\[video\]](#) [\[blog\]](#)

Visuals

- New Power BI visuals and updates [\[video\]](#) [\[blog\]](#)

Data connectivity

- Support for SAP HANA HDI Containers [[video](#)] [[blog](#)]
- Edit SAP variables in the Power BI service (preview) [[video](#)] [[blog](#)]
- PostgreSQL DirectQuery [[video](#)] [[blog](#)]
- MarkLogic connector now generally available [[video](#)] [[blog](#)]
- New Power Platform category within Get Data [[video](#)] [[blog](#)]

Template apps

- Facebook Pages - basic analytics [[blog](#)]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/sf4n7VXoQHY>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

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- If you receive a warning when loading a report saved in a newer release of Power BI Desktop, then save that report in the previous version, you lose any information related to new features.
- We only archive the English versions of Power BI Desktop.

July 2019 Update (2.71.5523.641)

Our July updates were skyrocketing with colorful bursts of new features and functionality for your Power BI Desktop.

You can now [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to Power BI Desktop this month:

Reporting

- Icon sets for table and matrix [video] [blog]
- Percent support for conditional formatting by rules [video] [blog]
- New filter pane is now generally available [video] [blog]
- Data colors support when using play axis on scatter charts [video] [blog]
- Performance improvements when using relative date and dropdown slicers [video] [blog]

Analytics

- Counts for Key influencers visual (preview) [video] [blog]
- Aggregations improvements [video] [blog]

Visuals

- PowerApps visual is now certified [video] [blog]
- Three new Power BI visuals and updates [video] [blog]

Data connectivity

- Azure Data Lake Storage Gen2 connector (beta) [video] [blog]
- Dynamics 365 Customer Insights connector [video] [blog]

Data preparation

- New transform: Split column by positions [video] [blog]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/170MRUF9UYg>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

You can also download previous versions of Power BI Desktop if your organization requires it. We always recommend that you use the most recent version of Power BI Desktop, rather than a previous version. All previous versions have the following limitations:

- Previous releases of Power BI Desktop are not being serviced - you should always use the most recent release for the latest features and updates.
- It may not be possible to open files created or saved in newer releases of Power BI Desktop with previous versions of Power BI Desktop.
- If you receive a warning when loading a report saved in a newer release of Power BI Desktop, then save that report in the previous version, you lose any information related to new features.
- We only archive the English versions of Power BI Desktop.

June 2019 Update (2.70.5494.561)

Our June updates spread sunshine and blue skies on your reports, with a refreshing and bright new color scheme for your Power BI Desktop, and a host of other improvements.

You can now [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

The links beside each update mean the following:

- **[video]** excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an **[article]** that provides more detail.
- Most features are explained in the monthly update **[blog]** post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the **play** icon on the video image found below the list of updates.

The following updates were new to **Power BI Desktop** this month:

Reporting

- Updated pane design [\[video\]](#) [\[blog\]](#)
- Visual level filters for slicers [\[video\]](#) [\[blog\]](#)
- Sorting for the performance analyzer pane [\[video\]](#) [\[blog\]](#)
- Conditional formatting updates for formatting options [\[video\]](#) [\[blog\]](#)
- Visual header tooltips [\[video\]](#) [\[blog\]](#)
- Table and matrix total label customization [\[video\]](#) [\[blog\]](#)

- Sync slicer support for hierarchy slicer [\[video\]](#) [\[blog\]](#)
- Consistent font sizes across visuals [\[video\]](#) [\[blog\]](#)

Analytics

- Key influencers visual updates (preview) [\[video\]](#) [\[blog\]](#)
 - Key influencers with Live connect to Power BI datasets
 - Key influencers accessibility
 - Support for Cloud RLS
- Manage aggregations dialog accessibility [\[video\]](#) [\[blog\]](#)

Modeling

- New == DAX comparison operator [\[video\]](#) [\[blog\]](#)

Visuals

- Personalized visualization pane (preview) [\[video\]](#) [\[blog\]](#)
- Three new Power BI visuals and updates [\[video\]](#) [\[blog\]](#)

Data connectivity

- Connect to shared and certified datasets [\[video\]](#) [\[blog\]](#)
- Common Data Service connector is now generally available [\[video\]](#) [\[blog\]](#)
- Azure Data Explorer connector is now generally available [\[video\]](#) [\[blog\]](#)
- Enhancements to the Cosmos DB connector [\[video\]](#) [\[blog\]](#)
- Entersoft data connector [\[video\]](#) [\[blog\]](#)

Data preparation

- Improvements to M Intellisense [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/7k-nP38uHyQ>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

May 2019 Update (2.69.5467.1251)

Our May updates bloomed in your garden of great reports, with compelling new features and a flower pot full of colorful, beautiful visuals.

You can now [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get [Power BI Desktop](#) from the Windows Store. The

monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install Power BI Desktop. See [this article](#) for more information.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to Power BI Desktop this month:

Reporting

- Performance Analyzer pane [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Filter pane improvements (preview) [\[video\]](#) [\[blog\]](#)
- Table and matrix keyboard navigation [\[video\]](#) [\[blog\]](#)
- Line data label position control [\[video\]](#) [\[blog\]](#)
- KPI visual indicator text size control [\[video\]](#) [\[blog\]](#)

Analytics

- Key influencers visual improvements (preview) [\[video\]](#) [\[blog\]](#)
 - Binning support
 - Formatting options
 - Mobile support

Modeling

- Disable auto-date tables for new reports [\[video\]](#) [\[blog\]](#)
- Update to the ALLSELECTED DAX function [\[video\]](#) [\[blog\]](#)

Visuals

- ArcGIS maps for Power BI updates [\[video\]](#) [\[blog\]](#)
- Six new Power BI visuals and updates [\[video\]](#) [\[blog\]](#)

Data connectivity

- Essbase connector - support for Native Query (MDX) [\[video\]](#) [\[blog\]](#)
- Intune Data Warehouse connector [\[video\]](#) [\[blog\]](#)
- Tenforce connector [\[video\]](#) [\[blog\]](#)
- Roamler connector [\[video\]](#) [\[blog\]](#)

Other

- Automatic query cancellation for Power BI Desktop [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/08G1HDz8xUQ>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

April 2019 Update (2.68.5432.361)

Our April updates were packed full of updates that put spring in your step on rainy days.

You can now [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to **Power BI Desktop** this month:

Reporting

- Filter pane improvements [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Conditional formatting for visual titles [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Conditional formatting for web URL actions for buttons, shapes and images [\[video\]](#) [\[blog\]](#)

Analytics

- Drillthrough across reports [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Key Influencers visual now supports continuous analysis for numeric targets [\[video\]](#) [\[blog\]](#)
- Python support not generally available [\[video\]](#) [\[blog\]](#)
- Partial synonym matching for terms in Q&A [\[video\]](#) [\[blog\]](#)

Modeling

- New DAX function - ALLCROSSFILTERED [\[video\]](#) [\[blog\]](#)

Power BI visuals

- One new custom visual [\[blog\]](#)

Data connectivity

- Power BI dataflows connector now generally available [\[video\]](#) [\[blog\]](#)
- Oracle Essbase connector now supports DirectQuery, and is generally available [\[video\]](#) [\[blog\]](#)
- PDF connector now generally available [\[video\]](#) [\[blog\]](#)
- Web By Example connector - automatic table inference [\[video\]](#) [\[blog\]](#)
- Intersystems IRIS connector [\[video\]](#) [\[blog\]](#)
- Indexima connector [\[video\]](#) [\[blog\]](#)
- Luminis InformationGrid connector [\[video\]](#) [\[blog\]](#)
- Solver BI360 connector [\[video\]](#) [\[blog\]](#)
- Paxata connector [\[video\]](#) [\[blog\]](#)

Data preparation

- Data Profiling enhancements and general availability [\[video\]](#) [\[blog\]](#)
- Fuzzy merge performance enhancements and general availability [\[video\]](#) [\[blog\]](#)
- M Intellisense supported in formula bar and custom column dialog, and is generally available [\[video\]](#) [\[blog\]](#)

Other

- Power BI Report Builder [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video channel describes and shows each of these updates. You can also see the videos from the [blog post](#).

<https://www.youtube.com/embed/vih35kSrEHU>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

March 2019 Update (2.67.5404.581)

Our March updates were packed full of compelling and useful updates, and we hope these improvements make you feel as lucky as finding a four-leaf clover.

You can now [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get [Power BI Desktop](#) from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install [Power BI Desktop](#). See [this article](#) for more information.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to Power BI Desktop in March:

Reporting

- Single select slicer [video] [blog]
- Heat map support for Bing maps [video] [blog]
- Cross-highlight by axis labels [video] [blog]
- Default tooltip formatting [video] [blog]
- Static web URL support for buttons, shapes and images [video] [blog]
- Filter pane improvements [video] [blog]
- Page alignment options [video] [blog]
- Selection pane improvements [video] [blog]
- Formatting updates for maps [video] [blog]
- Accessible visual interaction [video] [blog]

Analytics

- Q&A recommendations for improving results [video] [blog]
- Show dates as a hierarchy now generally available [video] [blog]

Modeling

- New modeling view now generally available [video] [blog]
- New DAX functions [video] [blog]

Power BI visuals

- New certified Power BI visuals setting in the admin portal [video] [blog]
- Two new Power BI visuals [video] [blog]

Data connectivity

- PDF connector now supports tables spanning multiple pages (preview) [video] [blog]
- Intelligent Plant's Industrial App Store connector [video] [blog]
- Azure Cost Management connector [video] [blog]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is

the same blog post references in the list above).

The following video channel describes and shows each of these updates. You can also see the videos from the blog post.

<https://www.youtube.com/embed/rBPGH6eYlT0>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

February 2019 update (2.66.5376.1681)

Our February updates made customers swoon and love all our new data connectors, features, and analytics enhancements. Just like a box of chocolates, you never know what you get... but with this February update, all changes were sweet and downright delicious.

You can [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates are new to **Power BI Desktop** this month:

Reporting

- Updates to the new filter pane (preview) [\[video\]](#) [\[blog\]](#)
- Cross-highlight on a single point in line charts [\[video\]](#) [\[blog\]](#)
- Word wrap on titles [\[video\]](#) [\[blog\]](#)
- Update default visual interaction to cross-filter [\[video\]](#) [\[blog\]](#)
- Rounded corners for visual borders [\[video\]](#) [\[blog\]](#)

Analytics

- Key influencers visual (preview) [\[video\]](#) [\[blog\]](#)
- Insights questions in Q&A [\[video\]](#) [\[blog\]](#)
- Auto-generated suggested questions for Q&A explorer [\[video\]](#) [\[blog\]](#)
- Improved Python & R script editor [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Ten new Power BI visuals, new Power BI visuals feature [\[video\]](#) [\[blog\]](#)

Data connectivity

- Microsoft Graph Security [\[video\]](#) [\[blog\]](#)
- Guidanz' BI Connector for OBIEE [\[video\]](#) [\[blog\]](#)
- MarkLogic [\[video\]](#) [\[blog\]](#)
- Kronos Workforce Dimensions [\[video\]](#) [\[blog\]](#)
- SurveyMonkey [\[video\]](#) [\[blog\]](#)
- Qubole Presto [\[video\]](#) [\[blog\]](#)
- Quick Base [\[video\]](#) [\[blog\]](#)
- Sagra Emigo [\[video\]](#) [\[blog\]](#)

Other

- Improved Live connect and DirectQuery error messages [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video channel describes and shows each of these updates. You can also see the videos from the blog post.

<https://www.youtube.com/embed/dMD25wfElLg>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

January 2019 Update

There was no Power BI Desktop release in January 2019 – we were all busy having a happy holiday, spending time with friends and family.

December 2018 Update (2.65.5313.621)

Our December updates made sugar plums dance in our customers' heads, or at least created compelling data-driven visuals of said sugar plums.

You can now [download the latest version of Power BI Desktop](#). If you're running Windows 10, you can also get **Power BI Desktop** from the Windows Store. The monthly versions are the same even though the version numbering may differ between the two, regardless of which way you install **Power BI Desktop**. See [this article](#) for more information.

The links beside each update mean the following:

- [\[video\]](#) excerpts play in a new browser tab, when the feature is being discussed.

- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates are new to **Power BI Desktop** this month:

Reporting

- Smart guides for aligning objects on a page [video] [article] [blog]
- ArcGIS Maps for Power BI updates [video] [article] [blog]
- Fields list accessibility support [video] [article] [blog]
- Set tab order for objects on a page [video] [article] [blog]
- Tooltips for button visuals [video] [article] [blog]
- Updated icons for *visual interactions* [video] [article] [blog]

Analytics

- Live connect support for Q&A (preview) [video] [blog]

Modeling

- DAX formula bar updates [video] [article] [blog]
- Data view accessibility support [video] [article] [blog]

Power BI visuals

- One new custom visual [video] [blog]

Data connectivity

- AtScale connector (Beta) [video] [blog]
- Oracle Essbase connector (Beta) [video] [article] [blog]

Data preparation

- Fuzzy merge - support for Top N best matches [video] [blog]

Other

- High contrast support for all panes and report footer [video] [article] [blog]
- Updated keyboard shortcut dialog [video] [article] [blog]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video channel describes and shows each of these updates. You can also see the videos from the [blog post](#).

<https://www.youtube.com/embed/AHN1kjRFdYI>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

November 2018 Update (2.64.5285.582)

Our November updates were a bountiful harvest of new features and functionality. So you could sit down with your family of data and analytics enthusiasts, pass the potatoes, and dig in to our feast of updates.

The following updates are new to **Power BI Desktop** in November:

Reporting

- Expand and collapse matrix row headers [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Copy and paste between Desktop files [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Updated filtering experience (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Report accessibility improvements [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Analytics

- Color saturation on visuals upgraded to use conditional formatting [\[video\]](#) [\[blog\]](#)
- Follow-up questions in the Q&A explorer [\[video\]](#) [\[blog\]](#)

Modeling

- New modeling view (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Composite models now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Modeling accessibility improvements [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- New DAX functions [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Five new Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- Azure Developer Operations Server connector [\[video\]](#) [\[blog\]](#)
- PDF Connector support for Start Page and End Page parameters [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Improved Azure Consumption Insights connector [\[video\]](#) [\[article\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video channel describes and shows each of these updates. You can also see the videos from the blog post.

<https://www.youtube.com/embed/1xsXXoyTxfk?controls=0>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

October 2018 Update (2.63.3272.40262)

Our October updates were spooky-good, frighteningly helpful, and sweeter than an orange bucket full of candy.

The following updates were new to **Power BI Desktop** in October:

Reporting

- Search in filter cards [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Accessibility improvements for authoring experiences [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Performance improvements for ArcGIS Map [\[video\]](#) [\[blog\]](#)

Modeling

- DAX editor improvements [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Analytics

- Composite models and aggregation support in the Power BI service (preview) [\[video\]](#) [\[article - aggregations\]](#) [\[article - composite models\]](#) [\[blog\]](#)
- Explain the increase for non-additive measures [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Five new Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- Web by Example connector now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- SAP BW connector implementation v2 now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- SAP BW Message Server Connector now generally available [\[video\]](#) [\[blog\]](#)
- Vertica connector now generally available [\[video\]](#) [\[blog\]](#)
- Dynamics NAV and Dynamics 365 business Central connectors now generally available [\[video\]](#) [\[blog\]](#)
- New Dynamics 365 business Central on-premises connector [\[video\]](#) [\[blog\]](#)

Data preparation

- Data Profiling in Power Query Editor (preview) [\[video\]](#) [\[blog\]](#)
- Fuzzy Matching options for Merge Queries (preview) [\[video\]](#) [\[blog\]](#)

Other areas

- Control export data options for reports [\[video\]](#) [\[blog\]](#)
- Transport layer security settings [\[video\]](#) [\[article\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where

you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video channel describes and shows each of these updates. You can also see the videos from the blog post.

<https://www.youtube.com/embed/cT3L2VzgBRU>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

September 2018 Update (2.62.5222.582)

Our September updates were like settling in to an exciting new classroom. Hopefully you found these updates as useful as a handful of just-sharpened No. 2 pencils.

The following updates were new to **Power BI Desktop** this month:

Reporting

- Dot plot layout support in scatter charts [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Copy value and selection from table and matrix visuals [\[video\]](#) [\[blog\]](#)
- Built-in report theme options [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Report page tooltips generally available, new Card support [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Accessibility improvements for analytics and formatting pane support [\[video\]](#) [\[blog\]](#)

Analytics

- Aggregations (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Power BI visuals

- Five new Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- PDF file connector (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- SAP BW connector - support for measure properties [\[video\]](#) [\[blog\]](#)
- Dataflows connector (beta) [\[article\]](#) [\[blog\]](#)

Data preparation

- M Intellisense [\[video\]](#) [\[blog\]](#)
- Add column from examples - support for text padding [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the blog post.

<https://www.youtube.com/embed/Rzw2WyI09kY>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

August 2018 Update (2.61.5192.321)

Our August updates were [august](#) in their own right, and followed quickly on the heels of July's big releases. Hopefully you found these updates like a sunny day on the beach; dip your toes in, we think you'll find these updates feel just right.

The following updates were new to **Power BI Desktop** in August:

Modeling

- Data categories for measures [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Statistical DAX functions [\[video\]](#) [\[blog\]](#)

Reporting

- Export to PDF, and print your reports [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Create bookmark groups [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Theming is generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Slicer restatement [\[video\]](#) [\[blog\]](#)

Analytics

- Conditional formatting by values [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Python integration [\[video\]](#) [\[blog\]](#)
- Q&A improvements [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Five new Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- Spark connector generally available [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the blog post.

<https://www.youtube.com/embed/dgv5HhHxxe8>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

July 2018 Update (2.60.5169.3201)

July's big updates were worthy of a fireworks show in their own right, with long-requested data and reporting features that launch your visuals sky-high, and burst with arcing displays of colorful insights.

The following updates were new to **Power BI Desktop** in July:

Modeling

- Composite models (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Many-to-many relationships (Preview) (associated with composite models) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Storage mode (Preview) (associated with composite models) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Reporting

- New visual header with more flexibility and formatting [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- wallpaper formatting [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Theming update - more visual and page control (Preview) [\[video\]](#) [\[blog\]](#)
- Tooltips for table and matrix [\[video\]](#) [\[blog\]](#)
- Turn tooltips off for visuals [\[video\]](#) [\[blog\]](#)
- Slicer accessibility [\[video\]](#) [\[blog\]](#)
- Formatting pane improvements [\[video\]](#) [\[blog\]](#)
- Stepped line support for line and combo charts [\[video\]](#) [\[blog\]](#)
- Turn off combo chart data labels for individual series [\[video\]](#) [\[blog\]](#)
- Sorting experience improvement [\[video\]](#) [\[blog\]](#)

Analytics

- Distribution factor insights [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Power BI certified category [\[video\]](#) [\[blog\]](#)
- Disabling specific organizational visuals [\[video\]](#) [\[blog\]](#)
- Four new Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- IBM DB2 DirectQuery connector (Preview) [\[video\]](#) [\[blog\]](#)
- Improvements to Web By Example connector [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- SAP HANA - default values for variables in Variable Input experience [\[video\]](#) [\[article\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/Mtig3rmIUe0>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

June 2018 Update (2.59.5135.101)

The sun was shining on June's updates, with features and improvements that warmed up your reports and let you bask in the insights they provided.

The following updates were new to **Power BI Desktop** in June:

Reporting

- High contrast support for reports [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Donut radius control [\[video\]](#) [\[blog\]](#)
- Pie and donut detail labels position control [\[video\]](#) [\[blog\]](#)
- Format data labels separately for each measure in a combo chart [\[video\]](#) [\[blog\]](#)
- Longer phone reports [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Two new Power BI visuals [\[video\]](#) [\[blog\]](#)

Modeling

- Filtering and sorting in data view [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Improved Locale filtering [\[video\]](#) [\[blog\]](#)

Data connectivity

- SAP BusinessWarehouse connector improvements (new driver and improved performance, plus improved support for hierarchy variables) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Spark connector now supports Windows Authentication [\[video\]](#) [\[blog\]](#)
- OData V4 connector enhancements [\[video\]](#) [\[blog\]](#)
- ODBC connector improvements (folding support for Top Rows, ability to filter navigation by DSN catalog) [\[video\]](#) [\[blog\]](#)

Other

- National cloud selector [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where

you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the blog post.

<https://www.youtube.com/embed/4VpGtWSrsSE>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

May 2018 Update (2.58.5103.281)

May's updates were a blooming collection of features and improvements that we hope spread sunshine on your reports, and made them blossom with beautiful insights.

The following updates were new to **Power BI Desktop** in May:

Reporting

- Conditional formatting by a different field [\[video\]](#) [\[blog\]](#)
- Advanced slicer syncing [\[video\]](#) [\[blog\]](#)
- Log axis improvements [\[video\]](#) [\[blog\]](#)
- Data label options for funnel chart [\[video\]](#) [\[blog\]](#)
- Set line stroke width to zero [\[video\]](#) [\[blog\]](#)

Analytics

- Measure drillthrough [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Power BI Premium

- Incremental refresh (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Power BI visuals

- Many new Power BI visuals [\[video\]](#) [\[blog\]](#)

Data connectivity

- New **From Web** connector - by example data extraction (preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Common Data Service for Apps connector (beta) [\[video\]](#) [\[blog\]](#)
- Azure KustoDB connector (beta) [\[video\]](#) [\[blog\]](#)
- Google BigQuery and Azure HDInsight Spark connectors now generally available [\[video\]](#) [\[blog\]](#)
- Adobe Analytics connector update - support for multiple domain logins (preview) [\[video\]](#) [\[blog\]](#)
- Visual Studio Team Services connector update - analytics views support [\[video\]](#) [\[blog\]](#)
- OLE DB connector update - support for alternate Windows credentials [\[video\]](#) [\[blog\]](#)
- SAP BW DirectQuery connector update - improved technical name support [\[video\]](#) [\[blog\]](#)

Data preparation

- Improvements to Add Column from Examples [[video](#)] [[blog](#)]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

https://www.youtube.com/embed/-_GMCE1TLvQ

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

April 2018 Update (2.57.5068.501)

We're not fooling about how happy we were with April's updates to **Power BI Desktop**. We showered the updates across a handful of areas, and hope they help you grow your future reports with amazing, beautiful visuals.

The following updates were new to **Power BI Desktop** in April:

Reporting

- Q&A Explorer [[video](#)] [[blog](#)]
- Buttons to trigger actions [[video](#)] [[article](#)] [[blog](#)]
- Combo chart line styles [[video](#)] [[blog](#)]
- Improved default sort for visuals [[video](#)] [[blog](#)]
- Numeric slicer now generally available [[video](#)] [[blog](#)]

Analytics

- Update your linguistic schema [[video](#)] [[article](#)] [[blog](#)]
- New DAX function: COMBINEVALUES() [[video](#)] [[blog](#)]

Power BI visuals

- Organizational visuals now generally available [[video](#)] [[article](#)] [[blog](#)]
- Many new Power BI visuals [[video](#)] [[blog](#)]

Data connectivity

- Adobe Analytics connector now generally available [[video](#)] [[article](#)] [[blog](#)]
- SAP HANA connector improvement: Port selection [[video](#)] [[article](#)] [[blog](#)]
- Dynamics 365 Business Central connector [[video](#)] [[article](#)] [[blog](#)]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

https://www.youtube.com/embed/W_Nb73od_AI

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

March 2018 Update ()

We were feeling lucky as a four-leaf clover about March's updates to **Power BI Desktop**. The following updates were new to **Power BI Desktop** in March:

Reporting

- Report page tooltips [\[video\]](#) [\[blog\]](#)
- Bookmarking is now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Display units and precision control for Table and Matrix columns [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Turn off the visual header in Reading mode for a report [\[video\]](#) [\[blog\]](#)
- Improved default visual placement [\[video\]](#) [\[blog\]](#)

Power BI visuals

- Many new Power BI visuals [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Data connectivity

- Visual Studio Team Services connector improvements [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- SAP HANA connector enhancements [\[video\]](#) [\[article\]](#) [\[blog\]](#)
 - DirectQuery multidimensional support is now generally available
 - SSL certificate validation support
- SAP BW DirectQuery now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Azure Analysis Services connector now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Other

- Improved error reporting [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- View previous errors you've encountered [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see

the video from the blog post.

<https://www.youtube.com/embed/kuI6MMzDh34>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

February 2018 Update (2.55.5010.521)

Our hearts were full of love for the updates to **Power BI Desktop** in February, and we hope you found them just as sweet as a box of chocolates.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video for this month from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to **Power BI Desktop** in February 2018:

Reporting

- Multi-select data points across multiple pages [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Sync slicers across multiple pages of a report [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Numeric range slicer improvement - whole number snapping (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Faster geocoding for Bing maps (web Preview) - up to 6x faster [\[video\]](#) [\[blog\]](#)
- Overflow data labels for bar and column charts visuals [\[video\]](#) [\[blog\]](#)
- Search the **Formatting** and **Analytics** panes [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Power BI visuals

- Organization Power BI visuals (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Analytics

- Set a custom date table [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Quick measures are now generally available [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Data connectivity

- Improvements to DirectQuery over SAP HANA (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Other

- DirectQuery performance improvements [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Open and save performance improvements [\[video\]](#) [\[blog\]](#)
- *Show items with no data* improvements [\[video\]](#) [\[blog\]](#)
- Persistent filters control for upcoming **Power BI service** feature [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/KevB5RwMzJ0>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

January 2018 Update (2.54.4970.761)

We rang in the new year with a collection of updates to **Power BI Desktop**, and our new year's resolution is to keep them coming.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the [Latest Updates](#) video for this month from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to **Power BI Desktop** in January:

Reporting

- Show and hide pages [\[video\]](#) [\[blog\]](#)
- Control data label background color for Cartesian and maps visuals [\[video\]](#) [\[blog\]](#)
- Increase the area used for axis labels in charts [\[video\]](#) [\[blog\]](#)
- Bar / column padding control [\[video\]](#) [\[blog\]](#)
- Show dates as a hierarchy (preview) [\[video\]](#) [\[blog\]](#)
- Add an anchor date for a relative date slicer [\[video\]](#) [\[blog\]](#)
- Top N selection in Q&A [\[blog\]](#)
- Many new Power BI visuals [\[video\]](#) [\[blog\]](#)

Analytics

- Correlation coefficient quick measure [\[blog\]](#)

Data connectivity

- Support for Azure Active Directory authentication for Azure SQL Database and Data Warehouse connectors [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/W8Pp5wuCXJw>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

December 2017 Update (2.53.4954.481)

December brought a Ho-Ho-Whole lot of updates to **Power BI Desktop**, chock full of features gifts for all business intelligence minded kids (and adults) to enjoy.

The links beside each update mean the following:

- [\[video\]](#) excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [\[article\]](#) that provides more detail.
- Most features are explained in the monthly update [\[blog\]](#) post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the **Latest Updates** video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to **Power BI Desktop** in December:

Reporting

- Q&A for report creation [\[video\]](#) [\[blog\]](#)
- Cross-highlighting for bookmarks [\[video\]](#) [\[blog\]](#)
- More bookmark flexibility [\[video\]](#) [\[blog\]](#)
- Field properties pane and field descriptions [\[video\]](#) [\[blog\]](#)
- Scatter visual from x- and y-axis groupings [\[video\]](#) [\[blog\]](#)
- High density sampling for maps based on latitude and longitude [\[video\]](#) [\[blog\]](#)
- Responsive slicers [\[video\]](#) [\[blog\]](#)
- Recently released Power BI visuals [\[video\]](#) [\[blog\]](#)

Analytics

- Drill filters other visuals [video] [blog]

Data connectivity

- Adobe Analytics connector [video] [blog]
- HDInsight Interactive Query connector [video] [blog]
- Data.world connector [video] [blog]
- SAP BW connector improvements [video] [blog]
- IBM Netezza connector now generally available [video] [blog]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/ZPU8B-1BxjI>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

November 2017 Update (2.52.4921.202)

November brought a whole harvest worth of updates to **Power BI Desktop**.

The links beside each update mean the following:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the [Latest Updates](#) video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates were new to **Power BI Desktop** in November:

Reporting

- Rule-based conditional formatting for Table and Matrix visuals [video] [blog]
- Cell alignment for Table and Matrix visuals [video] [blog]
- Control visual ordering through the selection pane [video] [blog]
- Lock objects on your report [video] [blog]
- Esri Plus Subscription is available for ArcGIS Maps for Power BI [video] [blog]

- Report options for slow data sources [\[video\]](#) [\[blog\]](#)
- Filtering performance improvements [\[video\]](#) [\[blog\]](#)
- Recently released Power BI visuals [\[video\]](#) [\[blog\]](#)

Analytics

- Cell-level formatting for multidimensional AS models for multi-row card [\[video\]](#) [\[blog\]](#)

Data connectivity

- Impala connector - support for Windows Authentication [\[video\]](#) [\[blog\]](#)

Other

- Query editing - Add column from Example improvements [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/sI3yRjdnJ7w>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

October 2017 Update (2.51.4885.543)

October brought a frighteningly compelling group of useful updates to **Power BI Desktop**.

The links beside each update mean the following:

- [\[video\]](#) excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [\[article\]](#) that provides more detail.
- Most features are explained in the monthly update [\[blog\]](#) post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the [Latest Updates](#) video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates are new to **Power BI Desktop** this month:

Reporting:

- Bookmarking (preview) [\[video\]](#) [\[blog\]](#) [\[article\]](#)

- Selection pane and visual display controls [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Bookmark links for shapes and images [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Spotlight [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Scatter and Bubble markers [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Increase the number of data points displayed in Scatter visuals [\[video\]](#) [\[blog\]](#)

Analytics:

- Quick measures for SSAS live connections [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Sales from new customers quick measure [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Cell-level formatting for multi-dimensional Analysis Services (AS) models [\[video\]](#) [\[blog\]](#)

Data Connectivity:

- Vertica connector (beta) [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- SAP BW connector - support for additional member properties [\[video\]](#) [\[blog\]](#)

Other:

- Get **Power BI Desktop** from the Windows Store [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Improved access to help content [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/jksjtR8GnBE>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

September 2017 Update (2.50.4859.502)

The following updates are new to **Power BI Desktop** in September:

Report View:

- Drillthrough to another report page [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Ribbon chart [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Insights about Explain the increase / Explain the decrease [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Theming preview update - chart style controls [\[video\]](#) [\[blog\]](#) [\[article\]](#)
- Accessibility improvements [\[video\]](#) [\[blog\]](#) [\[article\]](#)
 - Accessible See data [\[video\]](#) [\[blog\]](#) [\[article\]](#)
 - Keyboard shortcut helper dialog [\[video\]](#) [\[blog\]](#) [\[article\]](#)

- High density scatter chart sampling [[video](#)] [[blog](#)] [[article](#)]
- Gridline style control [[video](#)] [[blog](#)] [[article](#)]
- New Power BI visuals [[video](#)] [[blog](#)]
 - Calendar by Tallan [[video](#)] [[blog](#)]
 - Enlighten Aquarium [[video](#)] [[blog](#)]
 - Visio visual (preview) [[video](#)] [[blog](#)]
 - Impact bubble chart [[video](#)] [[blog](#)]

Data Connectivity:

- Azure Consumption Insights connector [[video](#)] [[blog](#)] [[article](#)]
- Improvements to the Dynamics 365 for Financials connector [[video](#)] [[blog](#)]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/mOTQJlnC1Jw>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

August 2017 Update (2.49.4831.222)

The following updates were new to Power BI Desktop in August:

Report View:

- Show values on rows for matrix [[video](#)] [[blog](#)]
- Color scales on font colors for table and matrix [[video](#)] [[blog](#)]
- Custom subtotal settings per level of matrix [[video](#)] [[blog](#)]
- Line styles and legend options [[video](#)] [[blog](#)]
- Scatter chart performance improvements [[video](#)] [[blog](#)]
- New Power BI visuals [[video](#)] [[blog](#)]
 - Dot Plot by MAQ Software [[video](#)] [[blog](#)]
 - Power KPI [[video](#)] [[blog](#)]
 - Funnel plot [[video](#)] [[blog](#)]
 - Beyondsoft Calendar [[video](#)] [[blog](#)]

Analytics & Modeling:

- what if parameters [[video](#)] [[blog](#)]
- New scatter chart analytics features [[video](#)] [[blog](#)]
 - Symmetry shading [[video](#)] [[blog](#)]

- Ratio lines [\[video\]](#) [\[blog\]](#)
- New quick measure: weighted average [\[video\]](#) [\[blog\]](#)

Data Connectivity:

- Live connect to the Power BI service is generally available [\[video\]](#) [\[blog\]](#)
- Google BigQuery connector (beta) [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/ND8U0yXroaQ>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

July 2017 Update (2.48.4792.321)

The following updates were new to **Power BI Desktop** in July:

Report View:

- New table & matrix visuals are now generally available [\[video\]](#) [\[blog\]](#)
- Renaming fields in visuals [\[video\]](#) [\[blog\]](#)
- Power BI visuals store integration [\[video\]](#) [\[blog\]](#)
- Relative date filters [\[video\]](#) [\[blog\]](#)
- Responsive layout for visuals (preview) [\[video\]](#) [\[blog\]](#)
- New waterfall chart option - breakdown [\[video\]](#) [\[blog\]](#)
- Custom visual updates [\[video\]](#) [\[blog\]](#)
 - Drill down Choropleth [\[video\]](#) [\[blog\]](#)
 - Drill down Cartogram [\[video\]](#) [\[blog\]](#)
 - Drill down Player [\[video\]](#) [\[blog\]](#)
 - Certified Power BI visuals [\[blog\]](#)

Analytics & Modeling:

- Quick measures from the community [\[video\]](#) [\[blog\]](#)
 - Star rating [\[video\]](#) [\[blog\]](#)
 - Concatenated list of values [\[video\]](#) [\[blog\]](#)
- Bidirectional cross filtering for DirectQuery is now generally available [\[video\]](#) [\[blog\]](#)

Data Connectivity:

- Snowflake connector general availability [\[video\]](#) [\[blog\]](#)

Query Editing:

- *Add column from Examples* enhancements [video] [blog]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post references in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/4x96ow7FnSY>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

June 2017 Update (2.47.4766.542)

The following updates were new to **Power BI Desktop** in June:

Report View:

- Data bars for new table and matrix visuals (Preview) [video] [blog]
- Markers on line, area, and combo visuals (Preview) [video] [blog]
- Visual font family setting [video] [blog]
- Horizontal image slicer [video] [blog]
- Combo chart formatting updates [video] [blog]
- Bing maps improvements [video] [article] [blog]
- High density line sampling [video] [article] [blog]
- Accessible reports [video] [article] [blog]

Data Connectivity:

- Custom Data Connectors support [video] [blog]
- **Power BI service** Live Connect to on-premises and push streaming datasets [video] [blog]
- Impala connector is now generally available [video] [blog]
- Amazon Redshift connector is now generally available [video] [blog]
- SAP BW connector - DirectQuery support [video] [blog]
- IBM Netezza connector (beta) [video] [blog]

Query Editing:

- *Add column from Examples* enhancements [video] [article] [blog]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/YlNVE5dgCSI>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

May 2017 Update (2.46.4732.461)

The following updates were new to Power BI Desktop in May:

Report View:

- Relative date slicer (Preview) [\[video\]](#) [\[blog\]](#)
- New table visual (Preview) [\[video\]](#) [\[blog\]](#)
- Combo chart data label enhancements [\[video\]](#) [\[blog\]](#)
- More URL support in table and matrix visuals [\[video\]](#) [\[blog\]](#)
- mailto links in textbox [\[video\]](#) [\[blog\]](#)

Analytics:

- Report level measures for live connections to Analysis Services tabular models and Power BI service datasets [\[video\]](#) [\[blog\]](#)
- Two new quick measures (Preview) [\[video\]](#) [\[blog\]](#)
- Bin by count [\[video\]](#) [\[blog\]](#)

Data Connectivity:

- Combine files - ability to reference *First File* as example [\[video\]](#) [\[blog\]](#)
- New data connectors:
 - Dynamics 365 for Customer Insights [\[video\]](#) [\[blog\]](#)

Query Editing:

- Two new transforms:
 - Extract text before/after/between delimiters [\[video\]](#) [\[blog\]](#)
 - Unpivot only selected columns [\[video\]](#) [\[blog\]](#)

NOTE

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Want more information about these updates? Take a look at the [blog post](#), where

you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the blog post.

<https://www.youtube.com/embed/CKISVNHChVA>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

April 2017 Update (2.45.4704.442)

The following updates were new to Power BI Desktop in April 2017:

Report View:

- Rename axis titles [\[video\]](#) [\[blog\]](#)
- New matrix visual enhancements: column sorting, column resizing, and word wrap (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Analytics:

- Quick measures [\[video\]](#) [\[blog\]](#) [\[in-depth blog\]](#) [\[article\]](#)
- Show value as [\[video\]](#) [\[blog\]](#)
- Q&A in Spanish (Preview) [\[video\]](#) [\[blog\]](#)

Data Connectivity:

- Connect to datasets in the Power BI service (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- New or enhanced data connectors:
 - Redshift Connector: beta support, and Publish to Power BI service [\[video\]](#) [\[blog\]](#)
 - SAP HANA and BW: enhancements to parameter input experience [\[video\]](#) [\[blog\]](#)

Query Editing:

- Add Column from Example [\[video\]](#) [\[article\]](#) [\[blog\]](#) [\[another blog\]](#)
- Split column (by delimiter/number of characters) into rows [\[video\]](#) [\[blog\]](#)
- Group by: basic mode [\[video\]](#) [\[blog\]](#)
- Go to column [\[video\]](#) [\[blog\]](#)

NOTE

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Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the blog post.

<https://www.youtube.com/embed/AWMaIaI8G2Y>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

March 2017 Update (2.44.4675.422)

The following updates were new to Power BI Desktop in March 2017:

Report View:

- New matrix visual (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Numeric range slicer (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)
- Data labels on pie and donut visuals - percent of total [\[video\]](#) [\[blog\]](#)
- Cross-highlight using multiple series [\[video\]](#) [\[blog\]](#)
- Textbox - ability to choose font color [\[video\]](#) [\[blog\]](#)
- Report theming (Preview) [\[video\]](#) [\[article\]](#) [\[blog\]](#)

Analytics:

- Clustering - now generally available [\[video\]](#) [\[blog\]](#)

Data Connectivity:

- New or enhanced data connectors [\[video\]](#):
 - Azure Analysis Services database (Beta) [\[blog\]](#)
 - Azure Data Lake Store - now generally available [\[blog\]](#)
 - DB2 connector - option to specify package collection [\[video\]](#) [\[blog\]](#)
 - Combine binaries - specify a sample file to use [\[video\]](#) [\[blog\]](#)

Query Editing improvements

- Split column by delimiter - automatic detection of delimiter character [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/CaRTON3lJqw>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

February 2017 Update (2.43.4647.541)

The following updates were new to Power BI Desktop in February:

Report View:

- Word wrap on matrix row headers [[video](#)] [[blog](#)]
- X- and Y-axis font size control [[video](#)] [[blog](#)]
- Cartesian chart minimum category width [[video](#)] [[blog](#)]
- Line chart line thickness and join type controls [[video](#)] [[blog](#)]

Analytics:

- Two new Quick Calcs: Percent of row total, and percent of column total [[video](#)] [[blog](#)]

Data Connectivity:

- New or enhanced data connectors [[video](#)]:
 - ODBC and OLE DB connectors - support for *Select related tables* [[blog](#)]
 - Enhanced Folder connector - support for combining binaries from the Preview dialog [[video](#)] [[blog](#)]
 - Unified Text and CSV connectors [[video](#)] [[blog](#)]
 - New - PowerApps Common Data Service connector [[blog](#)]

Query Editing improvements

- Quickly change a column's data type and locale with the new *Using Locale* option in the *Column headers type* menu [[video](#)] [[blog](#)]
- Easily insert steps into existing queries, using the new *Insert Step After* option [[video](#)] [[blog](#)]

Other improvements

- Solutions Templates and Partner Showcase quick access [[video](#)] [[blog](#)]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/mn75-LOPxMA>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

January 2017 Update (2.42.4611.482)

The following updates are new to Power BI Desktop in January:

Report View:

- Table and matrix conditional formatting improvement - blank formatting [[video](#)] [[blog](#)]
- New aggregations for string and dateTime columns [[video](#)] [[blog](#)]
- Table header word wrap [[video](#)] [[blog](#)]
- General Availability (GA) of Phone reports [[video](#)] [[blog](#)]

Data Connectors:

- New or enhanced data connectors [[video](#)]:
 - Visual Studio Team Services connector (Beta) [[video](#)] [[blog](#)]
 - Enhanced SQL Server connector - support for SQL Failover option [[video](#)] [[blog](#)]

Query Editing improvements

- New transform: extract values from a nested list [[video](#)] [[blog](#)]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/C1-f0T8vz7M>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

November 2016 Update (2.41.4581.301)

The following updates were new to Power BI Desktop in November:

Report View:

- Hierarchical axis [[video](#)] [[blog](#)]
- Axis label and title color control [[video](#)] [[blog](#)]
- Matrix conditional formatting [[video](#)] [[blog](#)]
- Table and matrix column formatting [[video](#)] [[blog](#)]
- Drop-down slicer [[video](#)] [[blog](#)]
- Mobile reports scrolling [[video](#)] [[blog](#)]

Analytics

- Clustering (preview) [[video](#)] [[blog](#)]
- Forecasting (now in the [Power BI service](#)) [[blog](#)]
- Groups (now on the ribbon) [[video](#)] [[blog](#)]

Data Connectors:

- New data connectors [\[video\]](#):
 - Spark DirectQuery [\[video\]](#) [\[blog\]](#)
 - OData connector improvements [\[video\]](#) [\[blog\]](#)
 - Enhanced *combine binaries* experience [\[video\]](#) [\[blog\]](#)
 - Azure Analysis Services [\[video\]](#) [\[blog\]](#)

Query Editing improvements

- Improved *function authoring* experience [\[video\]](#) [\[blog\]](#)
- Support for *percentage* data type [\[video\]](#) [\[blog\]](#)
- Added **Maximize** and **Restore** buttons in **Navigator** and **Query Dependencies** [\[video\]](#) [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

https://www.youtube.com/embed/kERJ_WOLuLK

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

October 2016 Update (2.40.4554.361)

The following updates were new to Power BI Desktop in October:

Report View:

- Improved date axis range formatting [\[video\]](#)
- Date slicer [\[blog\]](#) [\[video\]](#)
- Report gridlines and snap to grid (Preview) [\[article\]](#) [\[blog\]](#) [\[video\]](#)
- Data label improvements [\[blog\]](#) [\[video\]](#)
- Map formatting options [\[blog\]](#) [\[video\]](#)
- Improved date axis range formatting [\[blog\]](#)

Analytics

- Grouping [\[blog\]](#) [\[video\]](#)
- Binning [\[blog\]](#) [\[video\]](#)
- Top-N filter [\[blog\]](#) [\[video\]](#)
- Include/exclude data points [\[blog\]](#) [\[video\]](#)
- R-powered Power BI visuals [\[blog\]](#)

Data Connectors:

- New data connectors [\[video\]](#):

- Microsoft Dynamics 365 for Financials (Beta) [\[blog\]](#)
- OLE DB [\[blog\]](#)
- Mixpanel [\[blog\]](#)

Query Editing improvements

- Support for *table parameters* in the **Invoke Function** dialog [\[blog\]](#) [\[video\]](#)

Other improvements

- Diagnostics information in the **About** dialog [\[blog\]](#) [\[video\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/UXEY SvgvMaQ>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

September 2016 Update (2.39.4526.362)

The following updates were new to Power BI Desktop in September:

Report View:

- ArcGIS Maps for Power BI (Preview) [\[blog\]](#) [\[video\]](#)
- Mobile report layout (Preview) [\[blog\]](#) [\[video\]](#)
- Updated drill behavior [\[article\]](#) [\[blog\]](#) [\[video\]](#)

Analytics

- Forecasting (Preview) [\[article\]](#) [\[blog\]](#) [\[video\]](#)
- Use your own R IDE [\[blog\]](#) [\[video\]](#)

Data Connectors:

- New data connectors:
 - Snowflake connector DirectQuery support [\[blog\]](#)
 - ProjectPlace connector [\[article\]](#) [\[blog\]](#)
- Improvements to existing connectors:
 - Oracle connector - improved Navigator previews performance [\[blog\]](#)
 - OData connector - support for *Select Related Tables* option [\[blog\]](#)
 - SAP Business Warehouse and SAP HANA connectors - enhancements to parameter input interface [\[article\]](#) [\[blog\]](#)
 - Web connector - support for specifying HTTP request headers within the dialog [\[blog\]](#) [\[video\]](#)

Query Editor improvements:

- Query Dependencies view [blog] [video]
- Show Errors experience [blog]
- Query Editor ribbon support for scalar values [blog]
- Add function invocation column [blog]
- Expand & Aggregate columns - support for *Load More* values [blog]
- New transform - convert Table Column to a list [blog]
- Key boarding - support for *smart typing* in drop-down menus [blog]

Other improvements

- In-product links to the Power BI Community [blog] [video]

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

https://www.youtube.com/embed/pcur6E8g_KI

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

August 2016 Update (2.38.4491.282)

August introduced a full harvest of new features for Power BI Desktop:

- [video] excerpts play in a new browser tab, when the feature is being discussed.
- Some features have an [article] that provides more detail.
- Most features are explained in the monthly update [blog] post.
- Lastly, some features are self-explanatory and don't need an article or video.

You can also watch the [Latest Updates](#) video from the beginning, right inside this article, by clicking on the play icon on the video image found below the list of updates.

The following updates are new to Power BI Desktop this month:

Report View:

- Drill down (or back up) on line charts [blog] [video]
- Continuous axis for the Date axis [blog] [video]
- General availability of [Inline Hierarchies](#) [article] [blog] [video]

- Predefined matrix styles (similar to table formatting in Excel) [\[blog\]](#) [\[video\]](#)
- Reorder fields, in charts and tooltips [\[blog\]](#) [\[video\]](#)
- Color formatting for KPI visuals [\[blog\]](#) [\[video\]](#)

Analytics (New!)

- The all-new **Analytics** pane [\[article\]](#) [\[blog\]](#) [\[video\]](#)
- Dynamic reference lines [\[blog\]](#) [\[video\]](#)

Data Connectors:

- New data connectors:
 - Snowflake connector (Preview) [\[blog\]](#)
- Improvements to existing connectors:
 - Impala connector - DirectQuery support [\[article\]](#) [\[blog\]](#)
 - Web connector - Web page previews [\[blog\]](#) [\[video\]](#)
 - General availability for the SAP Business Warehouse connector [\[article\]](#) [\[blog\]](#)

Query Editor improvements:

- Option to Merge/Append as New Query [\[blog\]](#) [\[video\]](#)

Other improvements

- Auto-recover Desktop files [\[blog\]](#) [\[video\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/0VvG7Eqoke8>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

July 2016 Update (2.37.4464.321)

You can always [download the latest version of Power BI Desktop](#).

July brought another great collection of new features and highly anticipated data connectors to Power BI Desktop. The following enhancements were new to Power BI Desktop in July:

Report View:

- Predefined table styles [\[blog\]](#) [\[video\]](#)

- Shape Maps update – use custom maps [\[article\]](#) [\[blog\]](#) [\[video\]](#)

Data Connectors:

- New data connectors:
 - Amazon Redshift [\[article\]](#) [\[blog\]](#)
 - Impala [\[article\]](#) [\[blog\]](#)
- Improvements to existing connectors:
 - Web connector – support for specifying a connection timeout [\[blog\]](#)
 - CSV and Text – support for fixed-width delimited files [\[blog\]](#)
 - Improvements and changes to the SAP Business Warehouse connector [\[article\]](#) [\[blog\]](#)

Query Editor improvements:

- Use R script in Query Editor [\[article\]](#) [\[blog\]](#)
- Query parameter enhancements:
 - List query output as *allowed values* for a parameter [\[blog\]](#)
- Overwrite existing user-defined functions [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these features (this is the same blog post referenced in the list above).

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/g8ccfjffwmw>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

June 2016 Update (2.36.4434.362)

You can always [download the latest version of Power BI Desktop](#).

June provided a shining collection of interesting updates for Power BI Desktop.

Report View:

- New visual – Shape Maps [\[video\]](#) [\[article\]](#)
- Searchable slicers [\[video\]](#) [\[blog\]](#)
- Configurable line chart labels [\[video\]](#) [\[blog\]](#)
- New sign-in entry points [\[video\]](#) [\[blog\]](#)

Data Access:

- Row Level Security [\[blog\]](#) [\[article\]](#)

Data Connectors:

- New data connector: [\[blog\]](#)
 - Azure Enterprise
- Enhanced SAP BW and HANA connectors: [\[blog\]](#)
 - Allow multi-select of values for variables/Parameters
 - Support for Hierarchies in SAP BW
- Enhanced OData connector - imports Open Type columns [\[blog\]](#)
- Enhanced Access DB connector - button to Select Related Tables in Navigator dialog [\[blog\]](#)

Data Connectors:

- Templates - option to Load or Edit [\[blog\]](#)
- Query parameter enhancements: [\[blog\]](#)
 - Option to always allow Parameter specification
 - Create new parameter directly in context
- Option to generate Step Names in English [\[blog\]](#)
- Descriptions for Query Steps [\[video\]](#) [\[blog\]](#)
- New Data Transformations: [\[blog\]](#)
 - Extract Week Day and Month Name from a DateTime column
 - Merging dates and Times into a DateTime column
 - Extract Time.Start/End of Hour/Minute/Second

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/sZsL216oS4A>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

May 2016 Update (2.35.4399.381)

You can always [download the latest version of Power BI Desktop](#).

May brought another large collection of compelling updates for Power BI Desktop:

Report View:

- Customizable tooltips [\[video\]](#) [\[article\]](#)
- Conditional formatting in tables [\[video\]](#) [\[article\]](#)
- Publish to Pyramid server [\[blog\]](#)
- Scrolling loads more data in charts [\[video\]](#) [\[blog\]](#)

- Keyboard nudging for visuals [\[blog\]](#)

Analytics

- Quick Calcs - % of grand total [\[blog\]](#)

Data Connectivity:

- New data connectors: [\[blog\]](#)
 - Informix
 - comScore Digital Analytix
 - Troux
 - Planview Enterprise
- Improved DB2 connector [\[blog\]](#)
- Text/CSV connector exposes editable settings in preview dialog [\[blog\]](#)
- Improved relational database connectors with Display Schema information
- Data Source Settings enhancements [\[blog\]](#)
- Advanced Filter Rows dialog mode [\[blog\]](#)
- Inline Input controls for Function invocation within Query Editor [\[blog\]](#)
- Query Parameters: [\[blog\]](#)
 - Ability to convert queries to parameters (and vice versa)
 - Support for URL parameterization and multi-part URLs in Web connector
 - Support for parameterization in Conditional Columns dialog
- Ability to Save As a Power BI Template [\[blog\]](#)
- Support for reordering Query Steps using drag-and-drop [\[blog\]](#)
- Date picker support in Conditional Columns dialog input Date fields [\[blog\]](#)
- New context menu entry to create new queries from the Queries pane [\[blog\]](#)

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/KnDs4amt9-c>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

April 2016 Update (2.34.4372.322)

You can always [download the latest version of Power BI Desktop](#).

In April, we showered our great Power BI customers with another collection of compelling updates for Power BI Desktop. The following enhancements are new to Power BI Desktop this month:

Report View:

- Additional styles on a table, matrix, and multi-row card
- Trend lines on single visuals
- New drill action - [See Records](#)
- Map auto-zoom during drill/filter
- In-line hierarchy labels for expanded view (Preview - [see the article](#))

Data Modeling:

- Modeling operations are no longer blocked while visuals are refreshing
- Time Intelligence with built-in date hierarchy fields (Preview)
- Data model synonyms

Data Connectivity:

- Query Parameters
- Power BI Template files
- New *Online Services* category in Get Data dialog
- New Connectors:
 - SharePoint Folder
 - Webtrends
 - SparkPost
 - tyGraph
- Conditional Columns
- DirectQuery - Specify DirectQuery vs. Import mode in data source dialogs
- Column type indicator in Query Editor preview column headers
- Reorder Queries and Query Groups using Drag & Drop gestures
- Query Management menu in the ribbon

NOTE

You can also [check out all the data sources available to Power BI Desktop](#); our list is always growing, so check back often.

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/7IFZTYJR3Gk>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

March 2016 Update (2.33.4337.281)

You can now [download the latest version of Power BI Desktop](#).

March brings all sorts of renewal and freshness, including another round of Power BI Desktop additions. The following enhancements are new to Power BI

Desktop this month:

Report View:

- Publish reports to a Group Space in the Power BI service
- Reports with KPI trends now respect *Do Not Summarize* model settings from SSAS MD
- Data Point warnings are now non-intrusive

Data Modeling:

- You can now change the data type of a column when using DirectQuery mode
- Ability to assume Referential Integrity on relationships (for those imported, and created) in DirectQuery
- DirectQuery for Oracle and Teradata is now part of Power BI Desktop (no longer a preview feature)

Data Connectivity:

- A new SAP BW Connector (preview feature)
- Support for Command Timeout in the user interface (UI)
- There's a setting available to disable Privacy Level prompts at the machine level (including a registry key)
- Query Group Management enhancements:
 - Expand/Collapse All
 - Retain Query Group expansion state
- New Transformations:
 - Remove Blanks using the Column Filter menu
 - Convert Duration values to Years
 - Keep Duplicates
- Support for whitespace and line feeds in Query Editor preview
- Include hints for *sample input values* in the Change Type with Locale dialog
- Enhancements to the **Navigator** window:
 - Add schema information to navigation hierarchy for ODBC sources
 - Ability to disable preview from **Navigator**
 - Technical name support
- Load: Auto-step to disambiguate conflicting column names (case-insensitive comparison)
- You can now rename queries directly from the **Queries** pane

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/eAayYDF9QzY>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

You can now [download the latest version of Power BI Desktop](#).

We're leaping ahead with more updates this month! February brings 29 days to the month (it's a leap year), and with it, 29 improvements to this monthly update of Power BI Desktop. The following enhancements are new to Power BI Desktop this month:

Report View:

- See Data Behind a Visual (including *Export Data to CSV*)
- Map improvements - plot map with latitude/longitude only
- KPI consumption release support (including navigation hierarchy support and KPI trend for SSAS MD)
- SSAS Exploration Mode: Support for **Display folders** in the **Fields** pane
- Ribbon layout improvements: Contextual ribbon tab for **Report Tools**
- New KPI visual
- Get reports opened to the same page that was visible when they were saved
- **Edit Query** option in table context menu in the **Fields** pane (**Report & Data views**)
- **Duplicate Page** from the ribbon

Data Modeling:

- Ability to define hierarchies
- Performance Improvement: Table & column rename optimizations

Data Connectivity:

- **DirectQuery** support for Oracle and Teradata
- **DirectQuery** support for creating Calculated Columns
- Support for publishing Analysis Services Live reports
- JSON File connector
- SQL Sentry connector
- Support for jagged CSV files
- Exchange Connector - OAuth support
- SharePoint List Connector - URL validation
- Database Connectors - ability to disable Navigation Columns in Query previews (Performance optimization)
- Web Connector - fine-grained scoping of Credentials
- **Enter Data** dialog UX enhancements
- SAP HANA - Support for single sign-on with Windows Authentication (Power BI Desktop only)
- SAP HANA - Support for **Field labels**
- Alphabetical sort of columns in **Choose Columns** builder
- Improved performance of renaming/removing/reordering columns
- Virtualized Preview in **Query Editor**
- Visual indicator for unloaded queries in **Query Editor**
- 1-click Percentage transform

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/J5gz65wexh4>

NOTE

You might also be interested in learning [what's new in the Power BI service](#), and also check out [what's new in the mobile apps for Power BI](#).

January 2016 Update (2.31.4280.361)

You can now [download the latest version of Power BI Desktop](#).

Ring in the new year with another collection of improvements and enhancements to Power BI Desktop. The following enhancements are new to Power BI Desktop this month:

Report View:

- Add borders to a visual
- Add an image background to a visual

Data Connectivity:

- DirectQuery: you can now create measures when using DirectQuery mode
- You can now refresh data for individual tables from the Field List (in Report view and Data view), rather than (and in addition to) just being able to refresh all from the ribbon
- General Availability (GA) for SQL Server Analysis Services Multidimensional models Exploration mode (no longer a preview feature)
- Enhancements to hierarchy support
- General Availability (GA) for the SAP HANA connector (no longer a preview feature)
- Ability to append multiple tables within a single Append operation
- Option to disable data previews to download in the background (performance optimization)

Other Improvements:

- Support for Internet Explorer 9 (IE9) browser
- Performance improvements for report rendering, cross-highlighting, and otherwise
- Improvements to R integration in Power BI Desktop

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/ek8dwi33-24>

December 2015 Update (2.30.4246.181)

December is a month for giving, and the Power BI team is following suit with more updates, features, and more functionality in this month's Power BI Desktop update. The following enhancements are new to Power BI Desktop this month:

Report Authoring:

- **Formatting Pane and Ribbon:**
 - Format data labels per category services
 - Change the number of decimal places shown in visuals
 - Change text size in visuals
 - Ability to layout visuals accurately: alignment, distribute, size, position
 - Set styles across multiple visuals through **Format Painter**
 - Optimized **Home** ribbon layout
- **Enhancements to visualizations:**
 - Visual cue for sort state in **Table** visual
 - New visual: **Stacked Area** chart
 - Smart tooltips for **Area** and **Line** charts on hover
 - Ability to create reference line/region for a **Cartesian** visual
 - Improved data labels for **Pie** and **Scatter** charts
- **R Visuals integration in Power BI Desktop (Preview feature)**
- Suggested table-to-table relationships when trying to create visuals involving two tables which are not related

Data Modeling:

- Relationships View
 - Zooming slider
 - Fit Zoom to screen
 - Reset layout
 - Ability to zoom in CTRL+(mouse selection range)

Data Connectivity:

- **SSAS Multidimensional support - hierarchies support**
- Stripe Connector
- Smartsheet Connector
- **Enter Data:** paste or enter data to create a table
- DirectQuery improvements: support for all data types of T-SQL and SAP HANA, resulting in performance improvements
- ODBC Connector: support for selecting User/System DSNS
- CSV Connector: ability to specify Column Delimiter in the Source dialog

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the [blog post](#).

<https://www.youtube.com/embed/iw5VH8iIyfE>

November 2015 Update (2.29.4217.221)

You can now [download the latest version of Power BI Desktop](#).

Another month, another big collection of new features and improvements for Power BI Desktop. Improvements range from new data connectors to new modeling capabilities. Here are 26 new features and improvements:

Report Authoring:

- Play Axis for Scatter Chart
- Horizontal Slicers
- Slicer Selection Behaviors (single vs. multi-select)
- Control z-order
- Background Colors for Slides
- Interactions between Visuals - Subview (tile by)
- Duplicate Pages
- Support for KPIs and Images in Tables, Matrices and Cards
- Better Tooltips on Area Charts & Line Charts
- Ability to change Text size in Cards & Tables/Matrix
- Improved tooltips and labels in Field Well and Formatting panes
- Ability to see Categories with no data
- Improved Default Sort behaviors for visuals
- Ability to control Axis Scale display units
- Visuals Refresh optimizations when applying basic modeling operations

Data Modeling:

- Basic Automatic Date Features

Data Connectivity:

- [SSAS Multidimensional support](#)
- [SAP Hana](#)
- [R Script](#)
- DirectQuery for SQL Server, Azure SQL Database and Azure SQL Data Warehouse
- Azure Data Lake
- Marketo

Data Transformations:

- Improved Function Invocation experience
- Option to set Credentials at Server vs. Database level
- Add Prefix/Suffix to a Text column

Other Improvements:

- New Documentation Website, now also including localized content

Want more information about these updates? Take a look at the [blog post](#), where you can get more detailed information about each of these new features.

The following video describes and shows each of these updates. You can also see the video from the blog post.

<https://www.youtube.com/embed/ErHvpkyQjSg>

October 2015 Update (2.28.4190.122)

October brings another large collection of updates to Power BI Desktop:

Report Authoring:

- Custom Visualizations
- Insert Visual from the Ribbon
- Improved Default Sorting

- Tooltips & Data Labels on Funnel Charts
- Slicer Improvements:
 - Ability to Sort items
 - Ability to change Font Size
- Additional Formatting Options for Gauges
- Data Point Label layout improvements
- KPI Consumption (Preview Feature)

Data Modeling:

- Semi-Select support for DAX formulas in Data view

Data Connectivity:

- Azure Document DB connector
- Mailchimp connector
- DirectQuery for SQL Server and Azure SQL Database (Preview Feature)

Data Transformations:

- Filter by "not earliest/latest date"
- Filter by "is in previous N minutes/hours/seconds"
- Copy/Paste Queries between Power BI Desktop and Excel
- Support for Special Characters in Split Column
- Refresh Previews in Merge Queries dialog
- Monospaced font for Query Editor Preview

Other Improvements:

- Refresh Single Table (vs. All) from Report & Data Views
- Option to enable Preview features
- In-Product Ratings experience

You can view a video of all these updates, too.

<https://www.youtube.com/embed/Jboch1ZNkxm>

For more information, [check out the blog announcement](#) that describes more details about each update.

September 2015 Update (2.27.4163.351)

The following massive collection of 44 features has been added to this update:

Report Authoring

- Report-level filters
- Drill Up/Down for column and scatter charts
- New Page Size and Page View options
- Support for inserting Shapes in the Report canvas
- Fields pane improvements
 - Search Box to make it easier to find fields by name
 - "Expand/Collapse All" to improve navigation when there are multiple tables in the Fields pane
 - Field well cardinality support, drag-replace for buckets with 1 item
 - Additional Data Labels formatting options
 - Chart Cartesian Axis Improvements:

- X-Axis label direction (horizontal / diagonal)
- Support for Logarithmic & Linear scales for values in Y-axis
- Display Text for hyperlinks in text boxes
- Improvements to existing visualizations: Table, Matrix, slicer, Scatter Chart, Single Cards, Combo Charts and Gauges
- Support for displaying Color Saturation values in tooltips
- Ability to resize images and apply additional formatting options

Data Modeling

- Calculated Tables.
- Relationships view:
 - Create relationships via drag/drop between two tables in the diagram.
 - Delete relationships in relationship view by selecting and hitting the Delete key.
 - Rename/delete tables and columns
- Data view:
 - Copy Table contents to clipboard.
- Field Summarization:
 - Support for additional operations in the Fields pane: median, standard deviation, and variance
 - Default summarization: Users can now customize the default summarization operation for any given field in their model

Data Connectivity

- Support for on-premises Spark distributions
- Support for SharePoint lists from non-English sites
- Exchange connector - Enhanced support, now allowing connections to multiple mailboxes
- Excel Workbook Connector - Automatic Column Type detection when importing .XLS files
- "Select Related Tables" option when connecting to database sources
- Enhanced Active Directory connector credentials, allowing alternate Windows Credentials
- Improved Function Invocation experience when loading functions from a data source (such as a database)
- "Import Excel Workbook Contents" feature released last month now also supports external connections to Analysis Services tabular models
- New option to "Delete All" entries in the Data Source Settings dialog
- Option to "Enable Relationship Import during Refresh operations"

Data Transformations and Query Editor Improvements

- Copy to clipboard (available for cells/columns/tables)
- Filter date columns by earliest/latest date (dynamic filter)
- Extract min/max date/time value from a column
- Replace values - Provision for specifying special characters
- "Detect Column Types" option to trigger type detection on demand
- "Refresh All Previews" to refresh all Query Editor previews with a single click
- Performance Improvements:

- Choose Columns dialog: Faster user experience for dealing with wide tables
- Auto-filter & Expand/Aggregate popups: Faster for large number of values/fields

The following video covers these features in more detail.

<https://www.youtube.com/embed/Jm44dLXdarQ>

For more information about this update, [check out the blog announcement](#) that describes more details about each update.

August 2015 Update (2.26.4128.403)

The following features have been added to this update:

Overall Improvements:

- Import Excel Power BI artifacts (Data Model, Queries, Power View) into a new Power BI Desktop file
- HDInsight Spark connector
- Azure SQL Data Warehouse connector
- Support for custom MDX/DAQ queries when importing data from SSAS
- Live Analysis Services Connections: ability to change the database from Edit Queries dialog

Navigator dialog improvements:

- Resizable Navigator dialog
- Ability to multi-select items in Navigator (CTRL+click, SHIFT+click, etc.)

Query Editor improvements:

- Query Group creation/deletion improvements (multi-select, etc.)
- Ability to Split Query (i.e., refactor common base steps into a new query)
- Query Icons to reflect type of query in Queries navigator pane

Data Modeling improvements:

- Resizing of columns in Data View
- Moving Measures from one table to another

Take a look at the following video for more details about this update:

<https://www.youtube.com/embed/2v7LUD7MJaw>

July 2015 Update (2.25.4095.554)

The following features have been added in this update:

- **New Data Connectors:** appFigures, Quickbooks Online, Zendesk, GitHub, Twilio, and SweetIQ.
- **New Transformations:** Extract First/Last/Range of characters from a Text

Column; Option to specify Join Type in the Merge Queries dialog; Ability to customize Quote Style in Split Column by Delimiter dialog.

- **Report Authoring Improvements:** New visualizations (Area Chart, Waterfall, Donut & Matrix); New visual formatting and customization options (labels, titles, background, legend, colors, etc.); Insert Textbox and Picture in your report; Support for hyperlinks in reports and report tables; Undo/Redo actions.
- **Direct Report Exploration** over Analysis Services Tabular Models.
- **Data Modeling:** New Data View & Relationships views.
- Publish reports to PowerBI.com, directly from Power BI Desktop.
- Support for opening Recent Files in Start Page and "File -> Open" menu.
- Support for Exchange UPN Credentials in the Exchange connector.

In addition to all these new features, we're also making **Power BI Desktop** available in 42 different languages. Get the full list of languages and install the one you want from [our official download page](#).

Take a look at the following video for more details:

<https://www.youtube.com/embed/JCaCcdMnsyM>

May 2015 Update (2.23.4036.161)

The following features have been added in this update:

Modeling Features

- Calculated Columns
- Data Categorization
- Sort By Another Column
- Improved DAX Formula Editor: Function Help and Prototype

Get Data & Query

- New ODBC Tables connector (Beta)
- Improved to the Excel Workbook connector: better column type inference and faster load for data previews
- New Text Column Filters - Does Not Begin With and Does Not End With
- Enhanced Privacy Levels dialog

Take a look at the following video for details:

<https://www.youtube.com/embed/LS0zMfup1pQ>

April 2015 Update (2.22.4009.122)

You can now [download the latest version of Power BI Desktop](#).

The following features have been added in this update:

Modeling Features

- Initial support for DAX Measures
- New DAX functions
- Data Types & Formatting options in Report view
- Rename & Delete fields in Report view

Get Data & Query

- OData V4 support
- Support for Custom ADFS Authentication Services
- Updated Facebook connector due to Facebook API changes
- Unified Options dialog
- Option to disable Native Database query prompts
- Support for **Fixed Decimal Number** type
- Alternate Windows Credentials
- Remove Blank Rows
- Median Operation available for **Group By** and **Aggregate Column**
- Convert **DateTimeZone** value to **Local Time**

Performance Improvements

- Faster load of medium & large datasets by about 20%
- Improved time to open an existing PBIX file by about 50%

You can watch the following video for details:

<https://www.youtube.com/embed/FuL8agVKrcg>

March 2015 Update (2.21.3975.261)

The following features have been added in this update:

- Google Analytics connector
- Additional operators for date filtering in Query view
- Automatic Model Relationship Detection
- Enhanced Add Relationship dialog
- Report Pages Re-ordering (drag & drop)
- ~40-50% Performance Improvement filling database tables without filters/transforms
- Lots of bug fixes

You can watch the following video for more details:

<https://www.youtube.com/embed/xJTCgRo08TI>

February 2015 Update (2.20.3945.102)

The following features have been added or improved in this update:

- Performance improvements
- Dynamics CRM Online connector

NOTE

Currently, only URLs within the `crm.microsoft.com` domain are accepted by this dialog.

This does not include non-production tenants. We'll fix this issue in our March update.

The temporary workaround is to connect to this feed using "From OData".*

- Navigator Dialog improvements
 - Better preview experience for multi-dimensional sources (Analysis Services and SAP BusinessObjects)
 - Show Selected Items option
 - Improved Search capabilities in the Navigator tree
- New Transformations
 - Age and Subtract operations for Date/Time columns
 - Aggregate Columns: Option to disable new columns' prefix
- Field List improvements
 - Expand/Collapse tables
 - Hide/Unhide fields
 - Optimized layout (spacing, margins, and fonts)
- Report Pages Navigation - Key boarding support
- Lots of bug fixes

<https://www.youtube.com/embed/-bzFeS1S1wU>

January 2015 Update (2.19.3923.101)

This month we've made a number of improvements and bug fixes under the covers. Please try out the new version and continue to send us feedback if you find any issues!

Power BI Desktop Send a Smile Privacy Statement

3 minutes to read • [Edit online](#)

Beginning with the March 2018 version of **Power BI Desktop**, error reporting uses the Windows Error Reporting platform rather than the *Send a Smile* or *Send a Frown* functionality. You can get more information about the Windows Error Reporting platform in the [Windows Privacy blog](#).

For versions of Power BI Desktop prior to March 2018

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- Standard computer information, such as the Power BI Desktop, Internet Explorer version and CLR version that you are using.
- Power BI Desktop program usage, such as File Package Info (Document Locale, Fast Combine Enabled/Disabled state), Enabled and Disabled Preview Features, DirectQuery vs. Import mode, current Working Set and Peak Virtual Memory used in the current session.

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