

Power BI User Guide for Developers

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Abstract: This document is to let new users to get familiar with Power BI and be able to create reports in Power BI. Below instructions is based on Free Trial Version of PowerBI. The functions are limited and not able to fulfil the advanced requirements as PowerBI does.

Keywords: Power BI, create reports, Free Trial Version, limited functions, new users

1. Introduction

Power BI is a Data Visualization and Business Intelligence tool that converts data from different data sources to interactive dashboards and BI reports. Power BI suite provides multiple software, connector, and services - Power BI desktop, Power BI service based on SaaS, and mobile Power BI apps available for different platforms. These set of services are used by business users to consume data and build BI reports.

Power BI desktop app is used to create reports, while Power BI Services (Software as a Service - SaaS) is used to publish the reports, and Power BI mobile app is used to view the reports and dashboards.

Power BI **Desktop** is available in 64-bit version. To download the latest version, see below installation instructions.

2. Installation

Following are the steps of installation

- a) This is the link to directly download Power BI files - <https://www.microsoft.com/en-us/download/details.aspx?id=58494>
(Please note to update the version of Power BI time to time.)

Choose the download you want

<input type="checkbox"/> File Name	Size
<input checked="" type="checkbox"/> PBIDesktopSetup_x64.exe	290.0 MB
<input type="checkbox"/> PBIDesktopSetup.exe	267.9 MB

- b) Choose 64-bit OS file, click Next. It will start to download.

Choose the download you want

<input type="checkbox"/> File Name	Size
<input checked="" type="checkbox"/> PBIDesktopSetup_x64.exe	290.0 MB
<input type="checkbox"/> PBIDesktopSetup.exe	267.9 MB

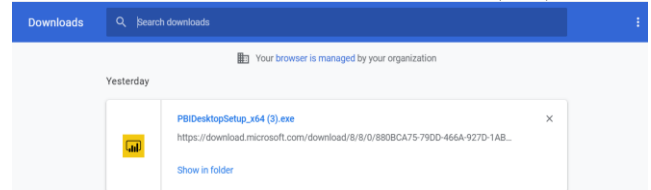
Download Summary:
KMBG8

1. PBIDesktopSetup_x64.exe

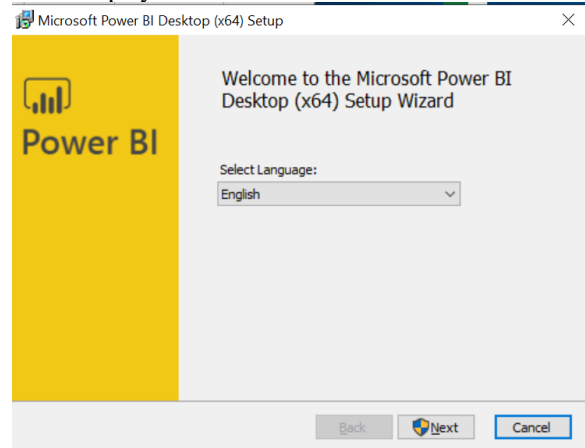
Total Size: 290.0 MB

Next

- c) You can find the installation file(.exe) in your downloads. Click it to run the installation file(.exe).



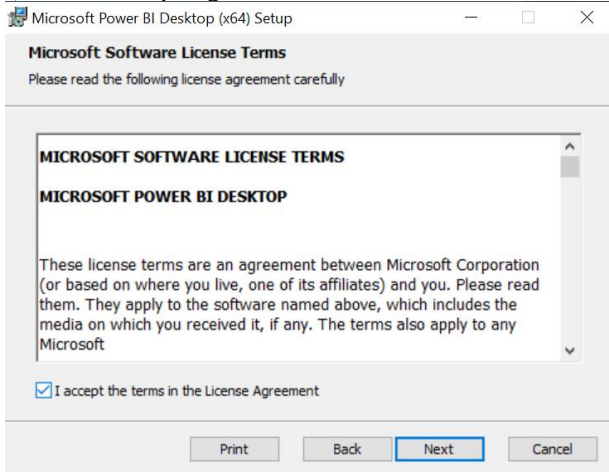
- d) When you run the installation file(.exe), following screen is displayed



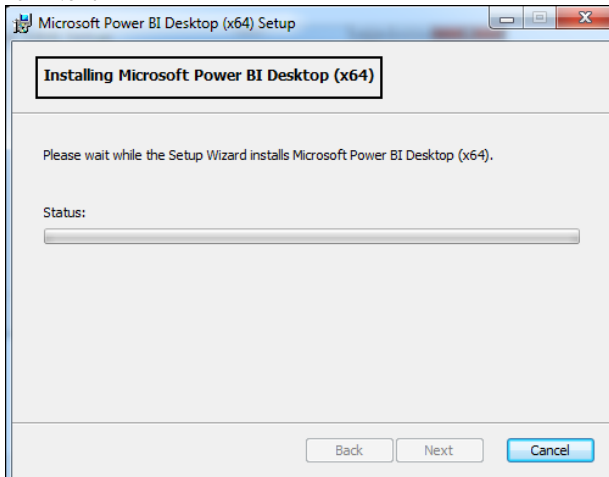
- e) Click Next, following screen is displayed, and click Next



f) Click Accept Agreement and Next



g) Choose the file address and start to setup. When finished, click Next



h) When the setup finished, click Finish.

3. Data Source

Get Data

Get Data feature lets Power BI users to select from a range of data sources, mostly Excel.



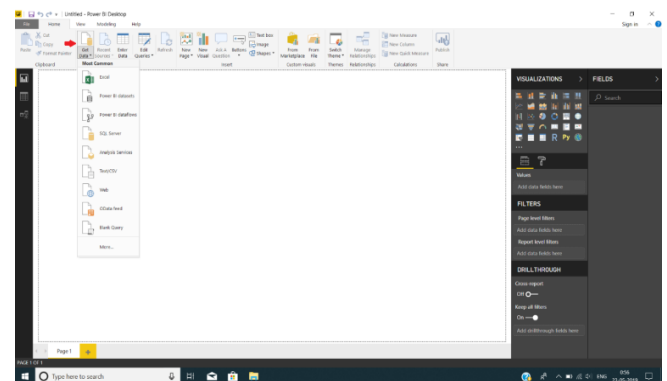
test.xlsx

For example, to ingest dummy Excel test.xlsx (Double click to open) to Power BI.

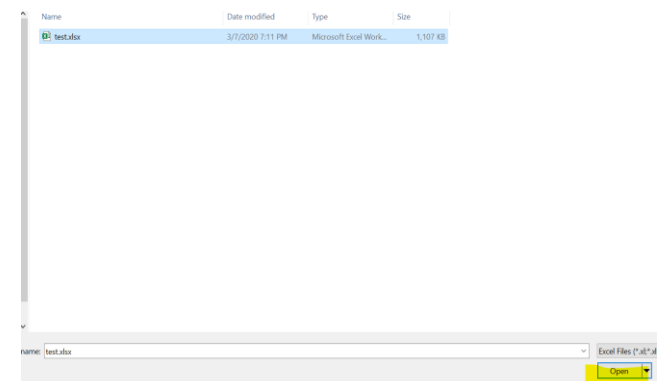
(Power BI accepts .xlsx or .xlsm format of Excel)

1) Save test.xlsx to a local file (eg:C:\Users\3838182\Desktop\Test)

2) Click Get data and choose excel

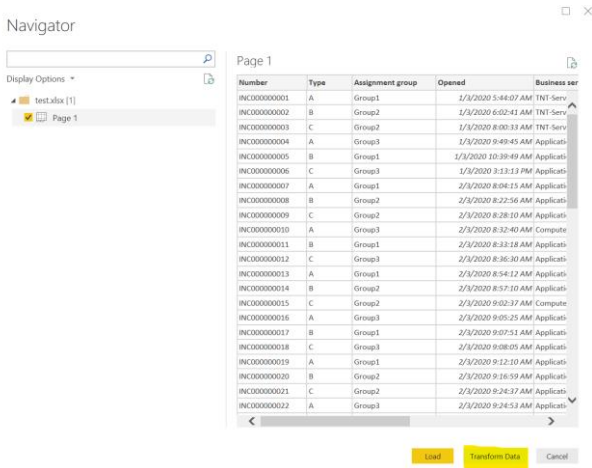


3) Find test.xlsx in local file and click open (eg: C:\Users\3838182\Desktop\Test)



4) In the Navigator pane, select page 1 and you can choose load whole table or do Datasets Filtration.

- Click Load to load whole table
- Click Transform to filter dataset

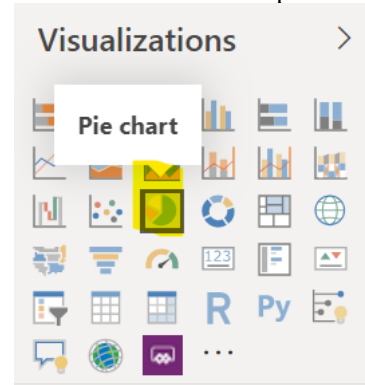


Please refer to Installation step 11 for Visualization pane and Fields.

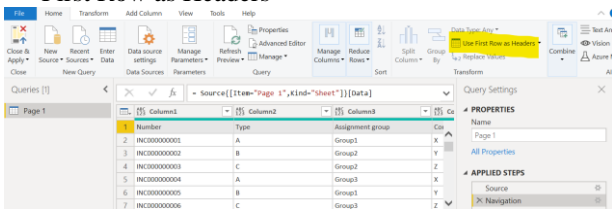
Pie chart

Example : Count of CI Pie Chart

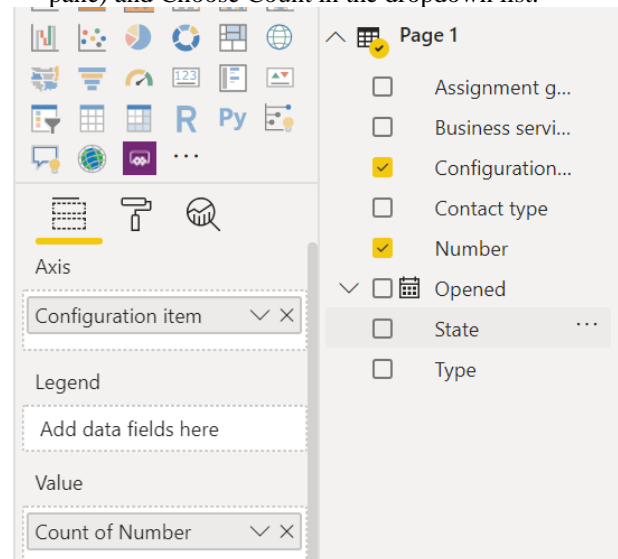
- 1) Choose Pie Chart in Visualization pane



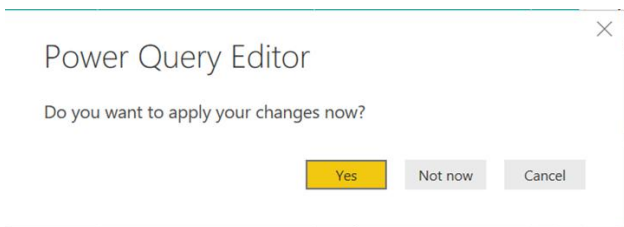
- 5) Click Transform, (you can choose to remove certain columns or rows to filter a dataset here) and click Use First Row as Headers



- 2) Move Configuration item (in Fields) to Axis (in Visualization pane).
- 3) Move Number (in Fields) to Value (in Visualization pane) and Choose Count in the dropdown list.



- 6) After Datasets Filtration, click yes in PBI query editor and load the dataset.



- 7) Now you can find the loaded table in "Data" in left pane

Number	Type	Assignment group	Opened	Business service	Configuration item	Contact type	State
INC00000306	Teracy Zhang	Group3	3/4/2020 4:15:34 PM	Application	temp-extras	Phone	Resolved
INC00000310	Teracy Zhang	Group3	3/4/2020 4:15:29 PM	Application	temp-extras	Phone	Resolved
INC00000312	Teracy Zhang	Group3	3/4/2020 4:15:27 PM	Application	temp-extras	Phone	Resolved
INC00000358	Teracy Zhang	Group3	3/4/2020 3:09:02 PM	Application	temp-extras	Phone	Resolved
INC00000360	Teracy Zhang	Group3	3/4/2020 3:08:04 PM	Application	temp-extras	Phone	Resolved
INC00000364	Teracy Zhang	Group3	3/4/2020 3:07:38 PM	Application	temp-extras	Phone	Resolved
INC00000576	Teracy Zhang	Group3	7/4/2020 4:31:43 PM	Application	temp-extras	Phone	Resolved
INC00000580	Teracy Zhang	Group3	7/4/2020 4:31:39 PM	Application	temp-extras	Phone	Resolved
INC00000582	Teracy Zhang	Group3	7/4/2020 4:31:35 PM	Application	temp-extras	Phone	Resolved
INC00000682	Teracy Zhang	Group3	7/4/2020 1:00:09 PM	Application	temp-extras	Phone	Resolved
INC00000684	Teracy Zhang	Group3	7/4/2020 1:00:00 PM	Application	temp-extras	Phone	Resolved
INC00000688	Teracy Zhang	Group3	7/4/2020 12:59:56 PM	Application	temp-extras	Phone	Resolved
INC00000706	Teracy Zhang	Group3	7/4/2020 12:21:37 PM	Application	temp-extras	Phone	Resolved
INC00000708	Teracy Zhang	Group3	7/4/2020 12:21:35 PM	Application	temp-extras	Phone	Resolved
INC00000712	Teracy Zhang	Group3	7/4/2020 12:21:28 PM	Application	temp-extras	Phone	Resolved
INC00000768	Teracy Zhang	Group3	7/4/2020 11:03:04 AM	Application	temp-extras	Phone	Resolved
INC00000772	Teracy Zhang	Group3	7/4/2020 11:02:57 AM	Application	temp-extras	Phone	Resolved
INC00000900	Teracy Zhang	Group3	6/4/2020 4:33:38 PM	Application	temp-extras	Phone	Resolved
INC00000904	Teracy Zhang	Group3	6/4/2020 4:33:34 PM	Application	temp-extras	Phone	Resolved

Figure 6: APPID and Secret Permissions

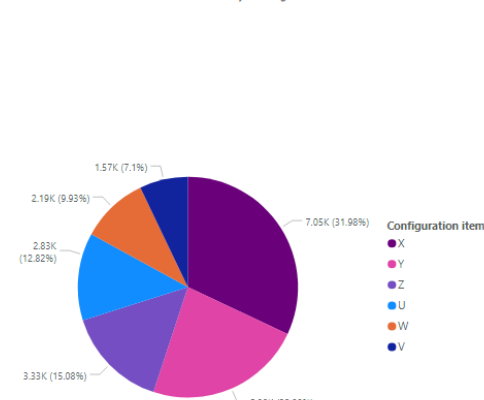
Once you confirm the permission is correct, click "Trust It" button. The SPO will redirect you back to "Site Setting" page which means your App is created.

4. Top 5 Features of Power BI

Please refer to Get data for the dummy excel test.xlsx.

Then the chart is done,

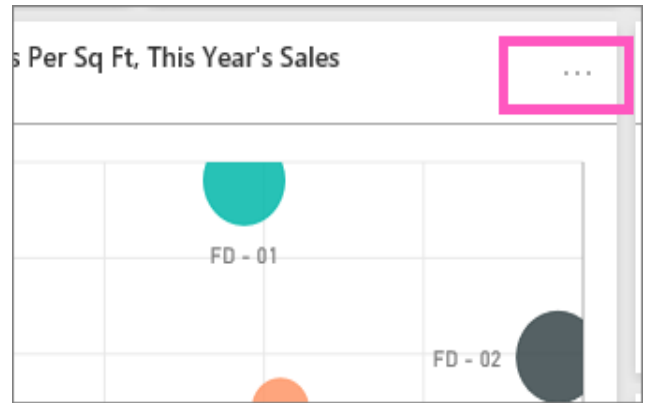
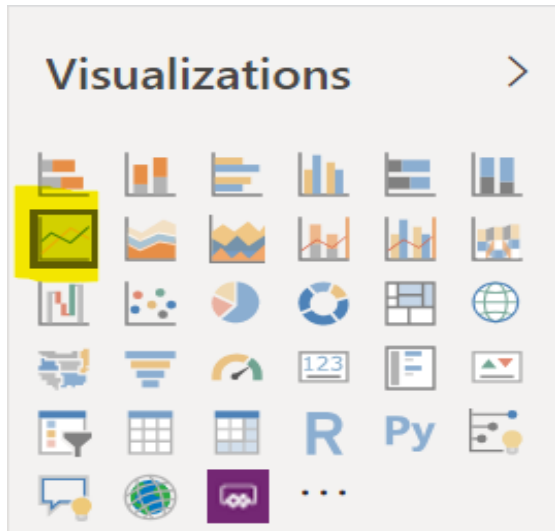
Count of Number by Configuration item



Line chart

Example: Count of CI Line Chart

- 4) Choose Line Chart in Visualization pane



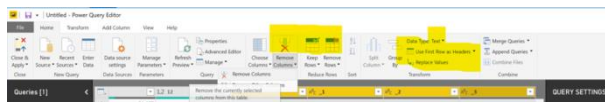
- 2) Select the ellipses to open the tile action menu. The options available vary by visual type and method used to create the tile. Here are a few examples of what you may see.

5. Dataset Filtration

Dataset is a single set of data created as a result of taking data from multiple data sources. You can use the datasets to create visualizations of different kinds. A dataset can be made of data taken from a single source like an Excel workbook.

You can filter the datasets and have smaller subsets containing only the important data and contextual relevance.

For example, please refer to Get data step 3 and 4 of Data source for example.

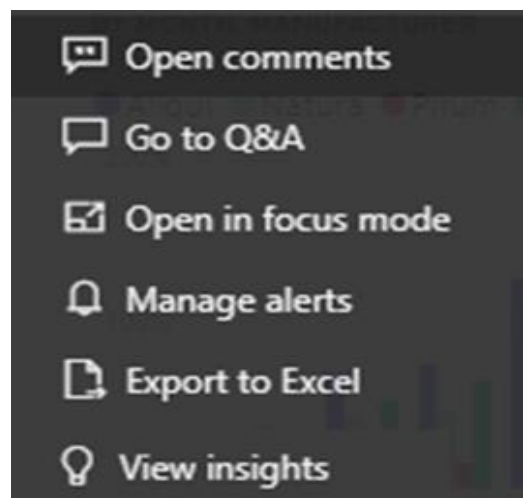


You click Remove columns, Keep Rows and Remove Rows to remove or keep certain columns and rows. You can also Change data type of a column by clicking data type and choose the data type from the dropdown lists.

6. Flexible Tiles

A tile is a single block containing a visualization in a Power BI dashboard. Tiles segregate each informative visualization properly to provide a clearer view. These tiles can be adjusted and the size can also be changed. Also, they can be placed anywhere on the dashboard as per the users' convenience. Use App Id and Secret to retrieve an Access Token

- 1) Hover over the tile to display the ellipses.



•tile created using Q&A

7. Limitation of Power BI

- 1) Does not handle large data sources properly
If you have a large data set which needs to be analyzed, Microsoft Power BI will not be the best option for you. You might face trouble in connecting and importing large datasets, as well as problems such as slow performance and time-outs.
- 2) Crowded User Interface
The formula help window and side bar often block the view of vital, making the user interface of Power BI to be very bulky. The making of scrolling dashboard will require a lot of efforts since it is not a native feature.
- 3) Configuration of Visuals

References

[1] <https://learn.microsoft.com/en-us/power-bi/>
 [2] <https://learn.microsoft.com/en-us/power-bi/fundamentals/desktop-getting-started>