



# Parameter in Power BI

# What is a Parameter

- In Power bi you can specify parameter at the data level(in your query editor) to segment the data according to the selections of the parameter.
- When you add a Parameter, the workbook updaes as per the values passed in a parameter.
- Remember to create a parameter and then add it to a field that will be used to filter the values.
- Parameter are available at Power BI services also, but there are some limitations.





# Metadata to be specified while creating a parameter:

Create new parameters and specify metadata and settings for each parameter:

- **Parameter Name.**
- **Parameter Description:** This will be displayed next to the parameter name in downstream experiences, and helps the user who is specifying the parameter value to better understand the purpose and semantics of this parameter.
- **Optional vs. Required:** Users can specify whether a certain parameter is optional or a value for that parameter must be specified (required).
- **Parameter Type:** This field applies a Data Type restriction on the input value for the parameter. For instance, users can define a parameter of type Text, or Date/Time. Users can also specify Any type for more flexibility.
- **Parameter Accepted Values:** In addition to Data Type restrictions, users can apply further restrictions to the allowed values for a given parameter. For instance, users could specify that the Data Type for a parameter is Text and restrict the acceptable values to a static list of Text values. Users will then be able to pick one of these values when specifying the parameter value to use.



Once we open the Query editor and click on Manage Parameter, we get a dialogue box like below. Here we can specify the values of the parameter.

The screenshot shows the 'Manage Parameters' dialog box in a query editor. The dialog has a title bar 'Manage Parameters' and a close button. On the left, there is a list of parameters with 'Select a Continent' selected. The right side of the dialog contains the following fields:

- Name:** Select a Continent
- Description:** (Empty text box)
- Required:** ☒ Required
- Type:** Text
- Suggested Values:** List of values
- Default Value:** (Empty dropdown)
- Current Value:** Europe

At the bottom right, there are 'OK' and 'Cancel' buttons.

1	North America
2	Pacific
3	Germany
4	Europe
*	



After we add a Parameter, on the left pane we can see a new table with parameter name and we will be able to see all the continents in the dropdown of the current value. We have to add this parameter to a valid data on which we want this to work.

The screenshot displays the Power BI Desktop interface. The top ribbon contains various toolbars: 'Close & Apply', 'New Source', 'Recent Sources', 'Enter Data', 'Data source settings', 'Manage Parameters', 'Refresh Preview', 'Properties', 'Advanced Editor', 'Manage', 'Choose Columns', 'Remove Columns', 'Keep Rows', 'Remove Rows', 'Sort', 'Split Column', and 'Group By'. The left pane, titled 'Queries [14]', lists several data sources, including 'Dim\_Customers', 'Dim\_Products', 'Dim\_Calendar', '4- Sales-2015', '5- Sales-2016', '6- Sales-2017', 'Fact\_Sales 2015-17', 'Dim\_Territories', 'Dim\_Categories', 'Dim\_Subcategories', 'Fact\_Returns', 'Dim\_Product Category/SC', 'Select a Continent (Europe)', and 'Select Top N'. The 'Select a Continent (Europe)' query is highlighted with a red circle. The right pane shows the 'Current Value' dropdown set to 'Europe' and a 'Manage Parameter' button, which is pointed to by a red arrow.

Close & Apply  
New Source  
Recent Sources  
Enter Data  
Data source settings  
Manage Parameters  
Refresh Preview  
Properties  
Advanced Editor  
Manage  
Choose Columns  
Remove Columns  
Keep Rows  
Remove Rows  
Sort  
Split Column  
Group By

Queries [14]

- Dim\_Customers
- Dim\_Products
- Dim\_Calendar
- 4- Sales-2015
- 5- Sales-2016
- 6- Sales-2017
- Fact\_Sales 2015-17
- Dim\_Territories
- Dim\_Categories
- Dim\_Subcategories
- Fact\_Returns
- Dim\_Product Category/SC
- Select a Continent (Europe)**
- Select Top N

Current Value  
Europe

Manage Parameter

So, we will go to the territory table as we want to see the value of the territory that we select. Open the field from the right → Text Filters → Equals → and we will get another dialogue box like below screen to specify the value

The screenshot shows the Power BI Desktop interface with the 'Text Filters' menu open for the 'Country' field. The menu options include 'Sort Ascending', 'Sort Descending', 'Clear Sort', 'Clear Filter', 'Remove Empty', and 'Text Filters'. The 'Text Filters' submenu is open, showing a search bar and a list of countries: (Select All), Australia, Canada, France, Germany, United Kingdom, and United States. The 'Equals...' option is highlighted in the submenu.

Power BI Desktop interface showing the 'Text Filters' menu for the 'Country' field. The menu options include 'Sort Ascending', 'Sort Descending', 'Clear Sort', 'Clear Filter', 'Remove Empty', and 'Text Filters'. The 'Text Filters' submenu is open, showing a search bar and a list of countries: (Select All), Australia, Canada, France, Germany, United Kingdom, and United States. The 'Equals...' option is highlighted in the submenu.

The screenshot shows the 'Filter Rows' dialog box in Power BI Desktop. The dialog has tabs for 'Southeast', 'United States', and 'North America'. The 'United States' tab is selected. The dialog contains the following text: 'Apply one or more filter conditions to the rows in this table.' Below this, there are radio buttons for 'Basic' (selected) and 'Advanced'. The text 'Keep rows where 'Country'' is displayed. There are two filter conditions: 'equals' (selected) and 'Select a Continent' (selected). Below these, there are radio buttons for 'And' (selected) and 'Or'. There is a text input field with the placeholder 'Enter or select a value'. The dialog has 'OK' and 'Cancel' buttons at the bottom right.

Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'Country'

equals Select a Continent

And Or

Enter or select a value

OK Cancel



Once the parameter is added to a field in the data, now when we go to Power BI desktop and from the dropdown of Transform Data; we will get Edit Parameter. When you pick a particular Continent from here, you will only get the data after the filtering of that Continent happens.

The image consists of two screenshots of the Power BI Desktop interface, illustrating the process of adding a parameter to a field.

**Left Screenshot:** The 'Transform data' dropdown menu is open, showing options like 'Transform data', 'Data source settings', 'Edit parameters' (circled in red), and 'Edit variables'. The background shows a map titled 'Total Transactions by Region 3' and a bar chart titled 'Total Revenue and Total Profit by CategoryName'. A pink box highlights the text 'Europe' and 'Total Transactions'.

**Right Screenshot:** The 'Edit Parameters' dialog box is open, showing a map of Europe. The dialog box has a title 'Adding a Parameter in Power BI' and a subtitle 'Edit Parameters'. It includes a 'Select a Continent' dropdown menu with options: Germany, North America, Pacific, Germany, and Europe. The 'Europe' option is selected. The dialog box also has 'OK' and 'Cancel' buttons. The background shows the same map and bar chart as the left screenshot, with a pink box highlighting the text 'Europe' and 'Total Transactions'.

# Limitations of Parameter

- Reports can only be published from Power BI desktop, other publishing processes, such as SharePoint/One Drive will not work.
- If you are using the RestAPI to publish your reports, you can manage parameters in the Power BI Service.
- Even though the parameters are multivalued in Power BI desktop, once you publish to the Power BI service, the value of the parameter needs to be typed in by the developer.
- Power BI Parameters will only work in import mode, irrespective of data source type.
- To modify the parameters in the service, the developer will need admin rights to the gateway on which the source system resides.

