User Guide

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Business Support Help Desk

Contact

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Security

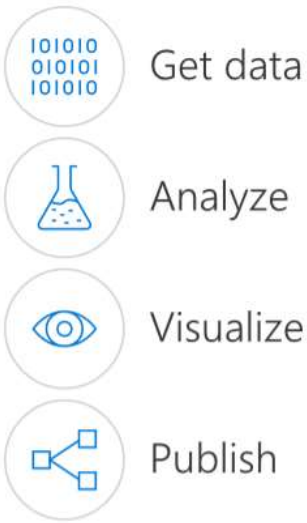
Browser

- view and run reports that exist in a program folder in Power BI Report Server
- create reports in Power BI Desktop and save to their computer
- enter a ticket to request publication of a report newly created

Publisher

- view and run reports that exist in a program folder in Power BI Report Server
- can create reports in Power BI Desktop
- designated users in each program can publish a report to a program folder

Workflow



Vocabulary

Power BI

Power BI is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into a report from which you can analyze and visualize the data in various ways.

Power BI Desktop

Connect to a data source and it is brought into Power BI Desktop where a report is created by someone with *Browser* or *Publisher* security.

Power BI Server

With *Publisher* security, a report can be published to the Power BI Server in a program folder.

Visualizations or Visual

A visualization is a visual representation of data such as a chart, graph, or map. There are many pre-configured visualizations in Power BI to choose from.

Datasets

A dataset is a collection of data that Power BI uses to create its visualizations. The data can be from one source or a combination of many different sources which can be filtered to provide a unique collection of data for use. Power BI has built-in data connectors to connect those data sources.

Reports

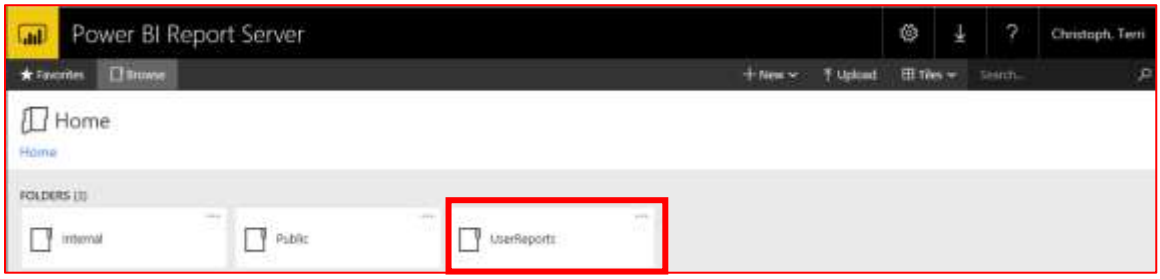
A report is a collection of visualizations that are related to one another that display together on one or more pages.

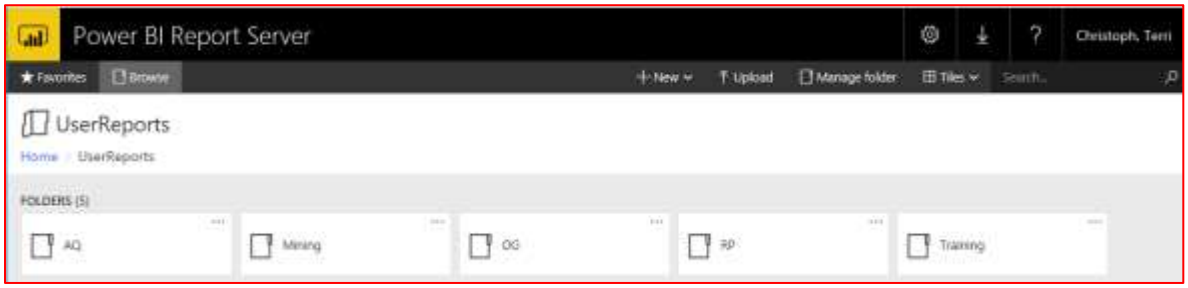
Slicer

A Slicer is a type of visualization. Filter the results of visuals on your report page with slicers. A slicer can be shown as various types; list, dropdown, between, less than or equal to, greater than or equal to.

View Reports in Power BI Server

1. Click the http://cedatareporting.pa.gov/reports/browse/UserReports link for the reports in production.





2. Single-click your **Program** folder.
3. Single-click to open a report in the folder.

   Note: To close a report, click back on the *Program Folder* breadcrumb.

Notes:

Power BI Desktop

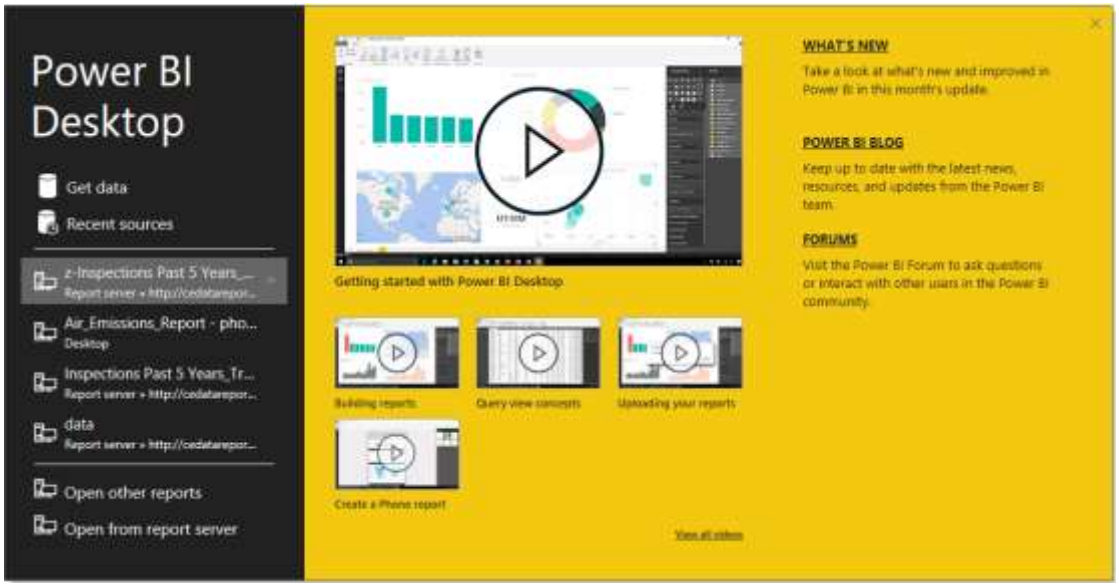
Login

The first time logging in, you will enter credentials for a data source; the next time the login will default to the same account.

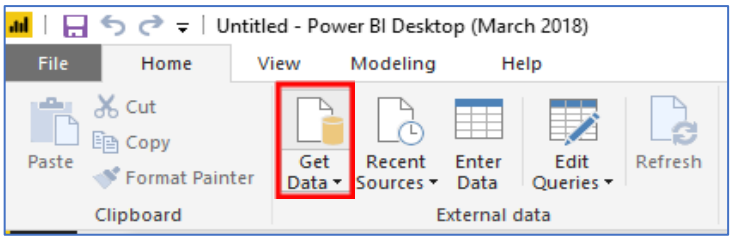
Get Data

1. Click the

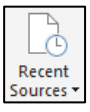
button from your desktop. *Power BI Desktop Welcome* will open.



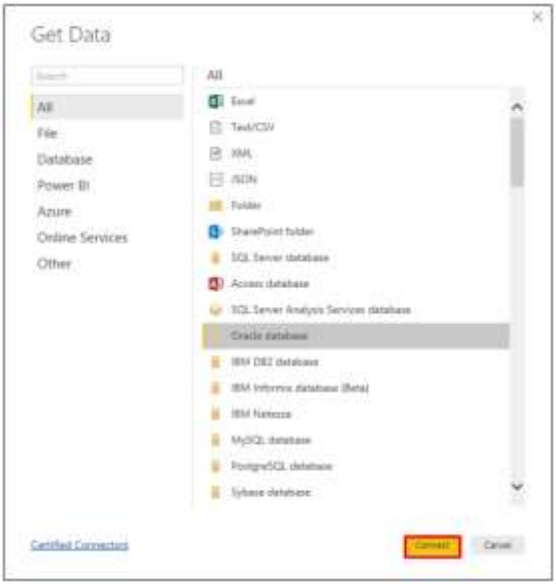
   a. Displays recent reports
   b. Video snippets
   c. What's New, Power BI Blog, Forum links
   d. Click the **X** in the upper right corner to exit this window

2. Click the **Get Data** icon 

from the ribbon. The *Get Data* window will open.

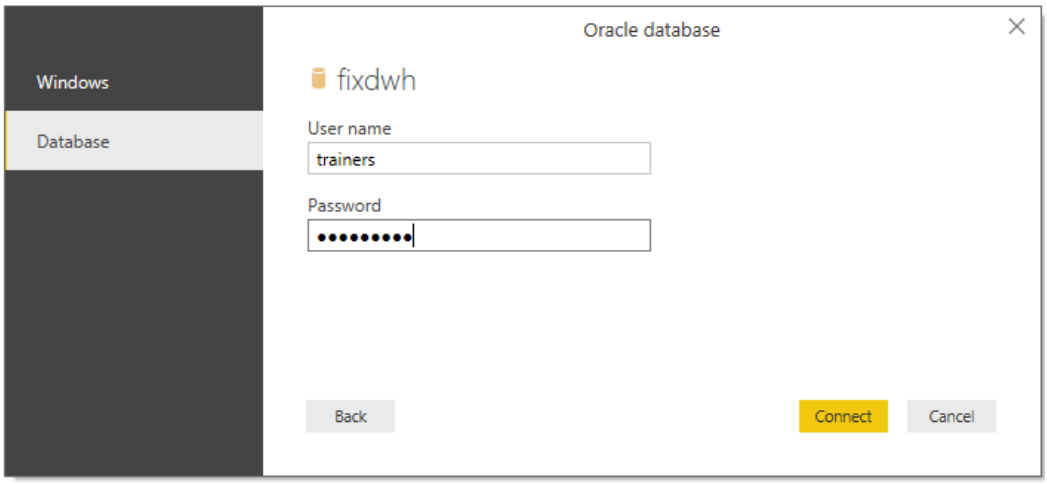
Note: *If you have been in the application before, click the* 

button and select fixdwh.



3. Click to select *Oracle database* and click the Connect button. The **Oracle database** window will open.

4. Server: *fixdwh*
5. Data Connectivity mode: *DirectQuery*.
6. Click the **OK** button. The log in window will open the first time you are connecting, after that the **Navigator** window will open at this point.



a. Click *Database* from the left pane.

b. Enter a *Username* and *Password*.

c. Click the Connect button. The **Navigator** will open.

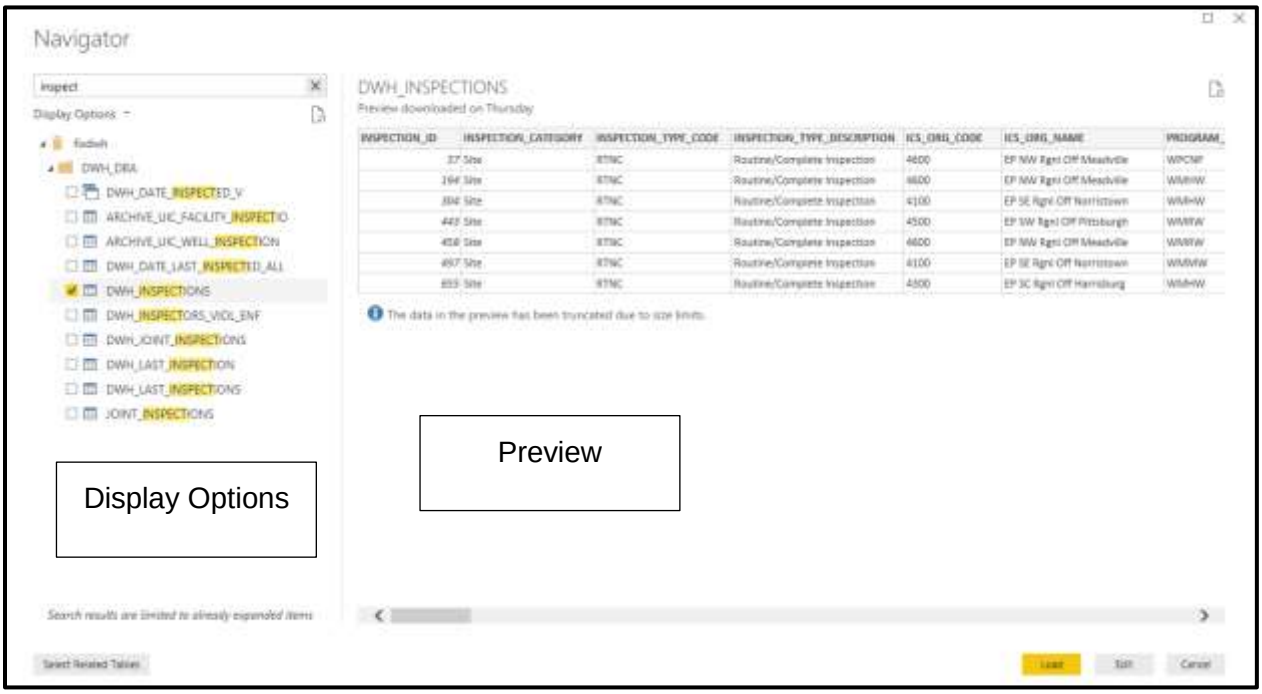
Note: *Your credentials will be remembered next time and you won't have to repeat the previous 3 steps again for the same account.*

Program Specific Logins Example

Program	Username	Password
Air Quality	AIR_REPORTS	test
Environmental Cleanup & Brownfields	ECP_REPORTS	test
Land Recycling	LAND_REPORTS	test
Mining	MINING_REPORTS	test
Oil & Gas	OG_REPORTS	test
Radon	RADON_USER	test
Radiation Protection	RP_REPORTS	test
Storage Tanks	STORAGE_TANK	test
Waste	WASTEMGT_REPORTS	test
Water	WATER_REPORTS	test
Shared Reports	SHARED_REPORTS	reporter

Navigator

1. In the search box type *dwh.* All options with that keyword will be highlighted.
2. Click the to expand *DWH_DBA*
3. Type a keyword in the search box (ex. "*inspect*"). All of the instances with that keyword will highlight.

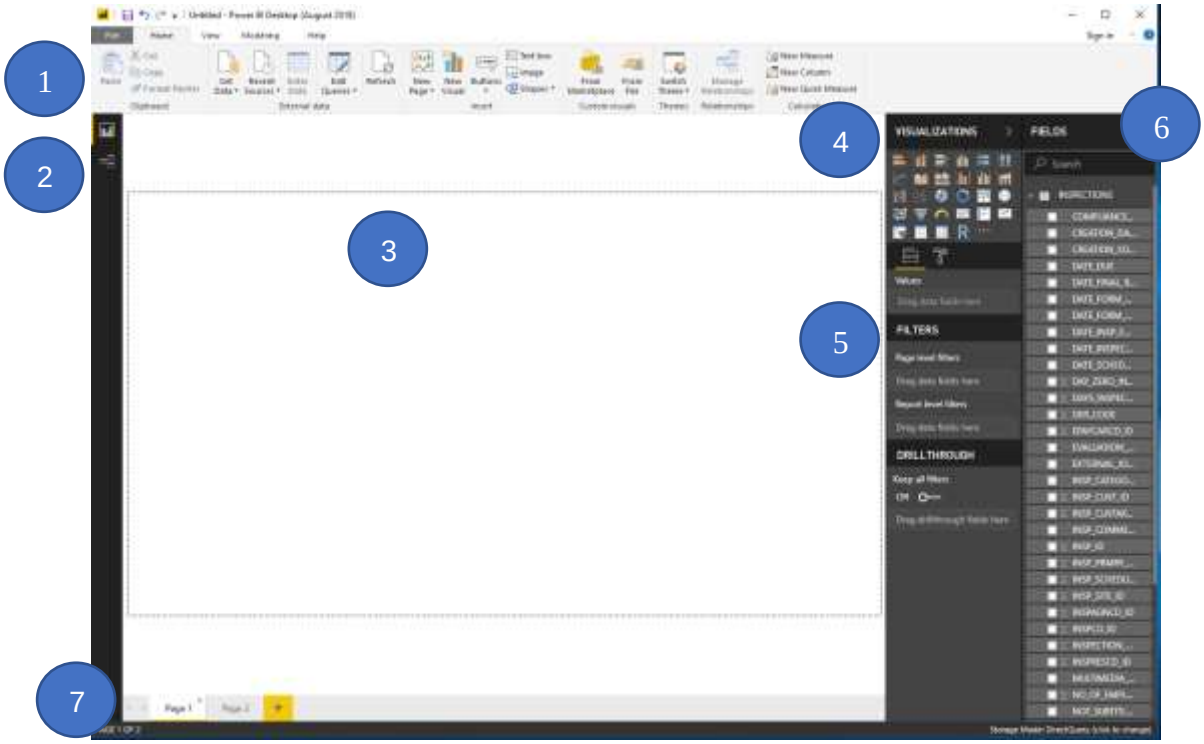


4. Click in a box to check the option you want and view the preview on the right. Wait until the preview loads.

   Note: *If you do not want the option, click to uncheck the box.*

5. Click the Load button. The *Report View* will display the dataset with all of the fields loaded.

Power BI Desktop Report View



1. **Ribbon** – displays common tasks associated with reports and visualizations.
2. **Views** – a yellow bar beside the icon indicates which view is active.
    a. Report View
    b. Relationships View
3. **Report View** – where visualizations are created and arranged
4. **Visualizations Pane** – select or change visualizations
5. **Filters Pane** – drag data points to specific filters
6. **Fields Pane** – contains the dataset that was loaded. Query elements and filters can be dragged onto the *Report* view or to the *Filters* area of the *Visualizations* Pane
    a. **Search field** – enter a keyword to search the field names.
    b. Hover over each field to view a tool-tip or resize the pane.
7. **Pages** – select or add report pages

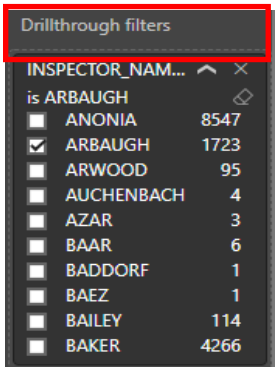
Note: *The Visualizations and Fields Pane can be collapsed (or expanded) by selecting the small arrow along the edge giving more space for the Report View.*

Filter Data

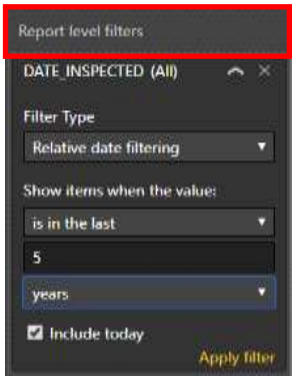
1. **Visual Level Filters** – displays what you are seeing in the active visual. (click the dropdown to filter a data point and will only filter in the active visual).

2. **Page Level Filters** – drag a field here to filter every visual only on the current page.

3. **Drillthrough Filters** – drag a field here to drill down to that field level. Like a page level filter, but the filter propagates from the parent page to all visuals in the page. Right-click on a data point and the details will be filtered to that context.



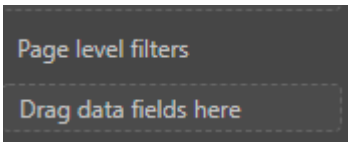
4. **Report Level Filters** – drag a field here to filter it throughout the entire report (when you have more than one tab or page). Filter in various ways.



Visual Level Filter

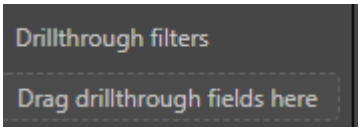
1. Click the visual to make it active.
2. Under the Visual level filters, click the dropdown to the right of the data point to filter. Depending on the data point selected, different filtering types may be available.

Page Level Filter



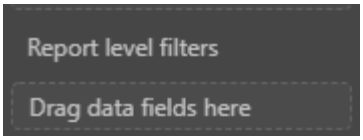
1. Click a data point from the *Fields* pane, drag and drop it into the *Page level filters* well. Depending on the data point selected, different filtering types may be available.

Drillthrough Filter



1. Click a data point from the *Fields* pane, drag and drop it into the *Drillthrough Filters* well.
2. Click in a checkbox to view only that selected data on all visuals on the page. A Drillthrough destination page is covered on a following page.

Report Level Filter

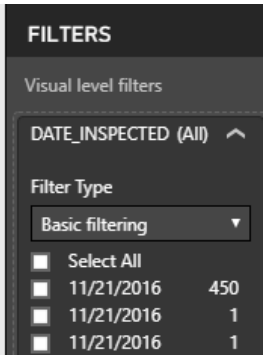


1. Click a data point from the *Fields* pane, drag and drop it into the *Report level filters* well.
2. Click the dropdown to filter in various ways.

Notes:

Filtering Type Options

Options will change depending on what you are filtering.

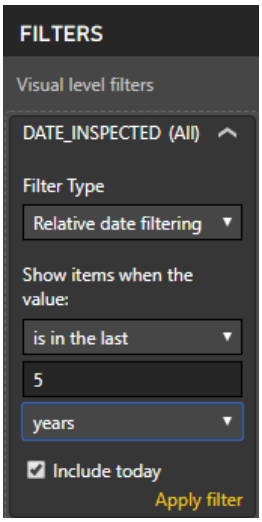


Basic Filtering - Date

Basic filtering will display all of the items available in your visual. Click in a checkbox next to an item to view only that data.

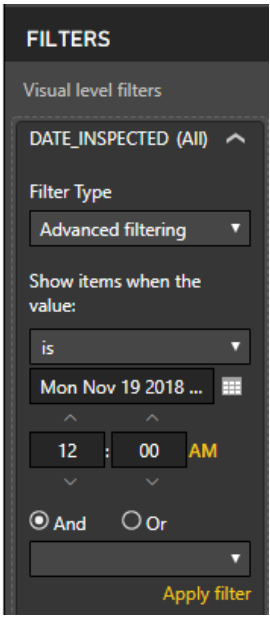
Relative Date Filtering

Click the dropdown and select [*Relative date filtering]* and then select options from the fields below. Click *Apply Filter* to apply what is chosen to your visual.



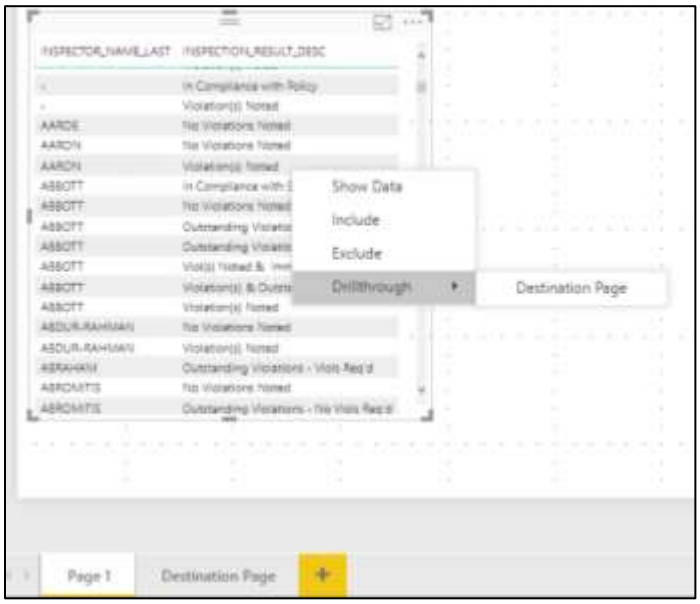
Advanced Filtering – Date

Click the dropdown and select *Advanced Filtering* and then select options from the fields below. Click *Apply Filter* to apply what is chosen to your visual.



Drillthrough Destination Page

There may be times you don't want to have to keep scrolling to find information or if you want to keep different types of data on another page and drill to it. You can create a new Page with detailed information to Drillthrough to.



1. On the initial Page, click a data point from the *Fields* pane to add to a Table visual that you are interested in viewing [Drillthrough] details for (example INSPECTOR_NAME_LAST). Add additional columns as desired.
2. At the bottom of the report, click the + to create a new Page. This will become our Destination Page.
3. Right-click over the new Page tab and select *Rename Page* and give it a new name.
4. On the Destination Page, create a visual with the detail information to drillthrough to.
5. On the Destination Page, click a data point from the *Fields* pane, drag and drop it into the Drillthrough well (Example INSPECTOR_NAME_LAST).

Note: *This field is also on the initial Page.*

6. Go back to the initial Page. Right-click over the row you want to Drillthrough to view more details on.
7. From the dropdown hover your mouse cursor over *Drillthrough* and select the [Destination] Page sub-command. The Destination Page will display only the details for the row selected on Page 1.

Visualizations

A visualization is a visual representation of data such as a chart, graph, or map.

Add a Visualization

There are two ways to create a new visualization.

1. In the *Fields* pane, enter a checkmark in the box next to the field or drag field names and drop them on the report canvas. By default, your visualization displays as a Table of data.
2. Click in a blank area of the *Report* view and then in the *Visualizations* pane, click the type of visualization you want to create. A blank placeholder will display on the report canvas waiting for data that will be selected.

Note: *Hover over an icon to view the tool tip displaying the name of the visualization.*

Change a Visualization

Click in the current visualization to activate it and then click on a different visual ion. Hover over the icons to view the tool tip name.

Move a Visual

To move a visual around in the report canvas, click on a blank margin or the two horizontal lines in the top center of the visual and drag it to a desired location.

Resize a Visual

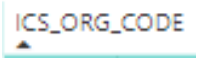
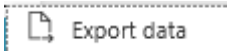
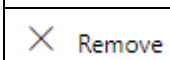
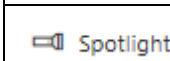
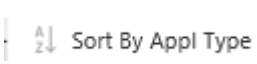
To resize a visual click on one of the handles around the visual until the cursor becomes a double-sided arrow and drag it to the desired size.

Format a Visual

Click the visual to make it active. Click the icon under the *Visualization* pane. The yellow bar under the icon indicates that it is active. Formatting options will differ according to the visual chosen.

Table Visual

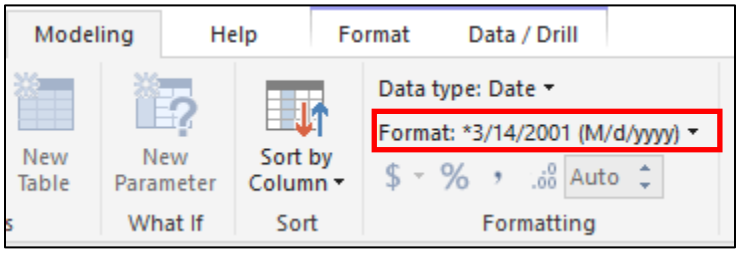
1. Click the Table icon from the Visualizations pane or if this is your first visual it may create a Table by default. A yellow box around the icon indicates that it is active.
2. Click in a checkbox in the *Fields* pane next to the data you want to enter into the table. Hover the mouse cursor over the field name to see the tool tip. Watch the progress wheel and wait until it is finished loading data.
3. As you do this the table in the report view area will grow.
    a. *Resize* the visual by hovering over a handle until the cursor changes into a double-arrow. Click and drag to a desired size.
    b. *Move* the visual by clicking on a margin or the double line in the top center of the visual and drag to the desired location.

Column header (hover over to see)	
	Click the arrow on the column header to sort. Ascending-arrow up, descending-arrow down.
Top right of table (hover over to see)	
	Focus mode: will s full screen on the visual
	Takes you out of focus mode back to the report
	Ellipsis with more options:
	Export data contained in the Table to Excel in .csv file
	Split screen with data in Table format below the visual
	Remove the visual
	Highlight one visual and fade out other visuals on the page
	Sort by: different sort options for the columns (can also sort from the column down or up arrow)

Change a Date Format

1. Click the

data point from the *Fields* pane. A yellow border indicates that it is active.
2. Click the *Modeling* Tab.



3. In the Formatting group, click the **Format:** dropdown and select **Date/Time:** **3/14/2001 (M/d/yyyy)*

Change [Inspection Id] to an eFACTS generated Id

If you have an Id that you want to be an eFACTS Id number, follow these steps. (example of an Inspection Id).

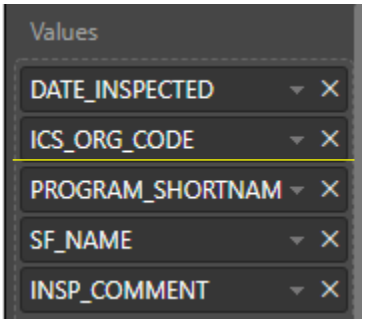
1. In the *Values* pane**,** click the dropdown next to INSPECTION_ID.
2. Click *Don't Summarize*. It will take time to load the Table.

   Note: *The eFACTS generated Id is now a decimal.*
3. In the *Fields* pane click *on* the

label. A yellow box indicates that it is active.
4. Click the *Modeling* Tab.
5. In the Formatting group, click the **Data Type** dropdown and select *Whole Number*.

Move Columns

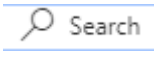
1. Click on a data point in the Values box (it lists according to how the column on a Table visual displays).
2. Drag the data point into the position you want it to display in the visual.
3. Release when you see the yellow line in the position you want.



Slicers Visual

A Slicer is an on-canvas visual filter.

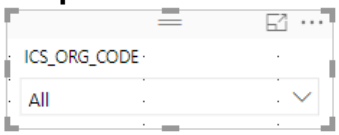
1. Click in a blank area of the Report view canvas.
2. Click the icon from the *Visualizations* pane. A template placeholder displays. Make sure the Slicer is activated (the handles will be visible).
3. In the *Fields* pane, click in a checkbox or drag a field and drop it at the top of the Slicer placeholder. The visualization turns into a list of elements with checkboxes.
    a. Make a selection and all other visualizations on the same report page are filtered or sliced by your selection. Hold down the [Ctrl] key to make multiple selections.

Top right of slicer (hover over to see)	
	Click the dropdown arrow to select the type of slicer
List	Default slicer view to make choices from a list
Dropdown	Select to make choices in a dropdown (Can select multiple using the [Ctrl] key)
	Clear selections
	Click the ellipsis to view more options
	Add a search box to the top of your list to enable keyword search if the list is long

Format Slicer

List

Dropdown



Change a *List* to a *Dropdown*

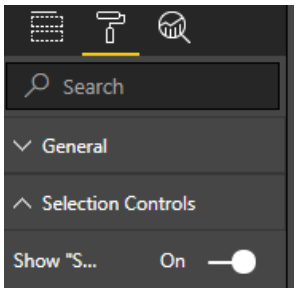
1. Hover the mouse cursor to the right of the title of the Slicer and click the dropdown .
2. Select *Dropdown* from the options.

Add *Search* to the Dropdown

1. Hover your mouse cursor over the top right and click the ellipsis.
2. Click **Search** from the options.

Add *Select All* to the Dropdown

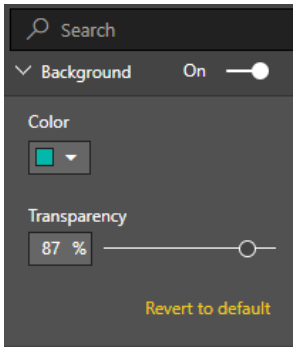
1. Make sure that the Slicer is active.
2. Click the format icon
3. Expand *Selection Controls*
4. Turn the *Show "Select All Option"* on.



Format

Format options will change depending on the type of visual that is activated.

Background Color – Slicer or Table



1. Click on the Slicer or Table to activate it.
2. Click the icon.
3. Turn on *Background*.
4. Expand *Background* and select the Color and Transparency.

Alternating Rows - Table

DATE_INSPECTED	ICS_ORG_CODE	INSPECTION_ID
11/21/2016	3800	2725379
11/21/2016	4100	2475380
11/21/2016	4100	2475382
11/21/2016	4100	2475383
11/21/2016	4100	2480519
11/21/2016	4100	2489103
11/21/2016	4100	2489952

1. Click on the Table to activate it.
2. Click the icon and expand Table Style.
3. Click the dropdown next to Style and select *Contrast Alternating Rows.*

Add Grid Lines

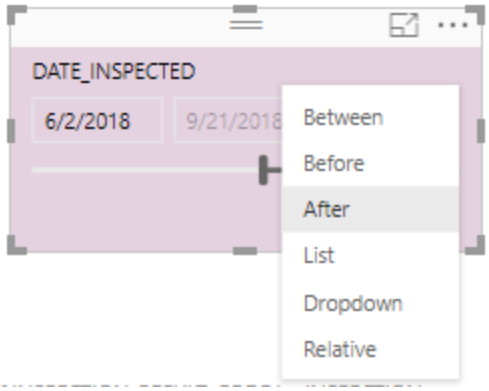
1. Click the **View** Ribbon
2. Check *Show Gridlines*

Date Slicer

1. Click in a blank area of the *Report* view canvas.
2. Click the icon (hover mouse cursor over the icon to view the tool tip). A template placeholder displays.
3. Click and drag a date data point into the *Field* well.
4. Date filter
    a. Can use the slider bar to narrow the dates
    b. Can click the dropdown and select a date
    c. Can use relational values

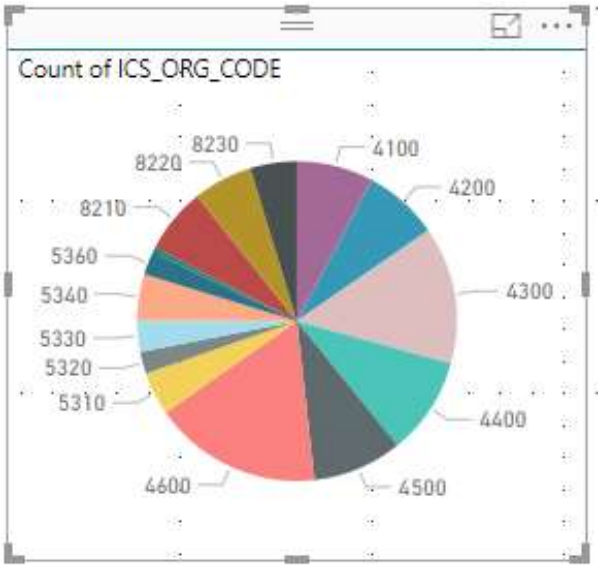
Example of relational values:

Click the dropdown and see the context menu. Select *After*

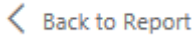
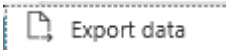
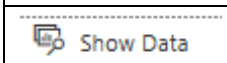
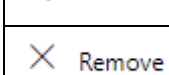
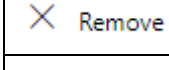


Select *After* and type in a date 6/1/2017 (or use the slider)

Pie Chart Visual



1. Click in a blank area of the Report view canvas.
2. Click the icon from the *Visualizations* pane. Hover the mouse cursor over the icon to see the tool tip. A placeholder will display on the page.
3. In the Fields pane click in the checkbox to select a data point. It will display in the Legend well.
4. Click and drag a data point from the Fields pane into the Values well.

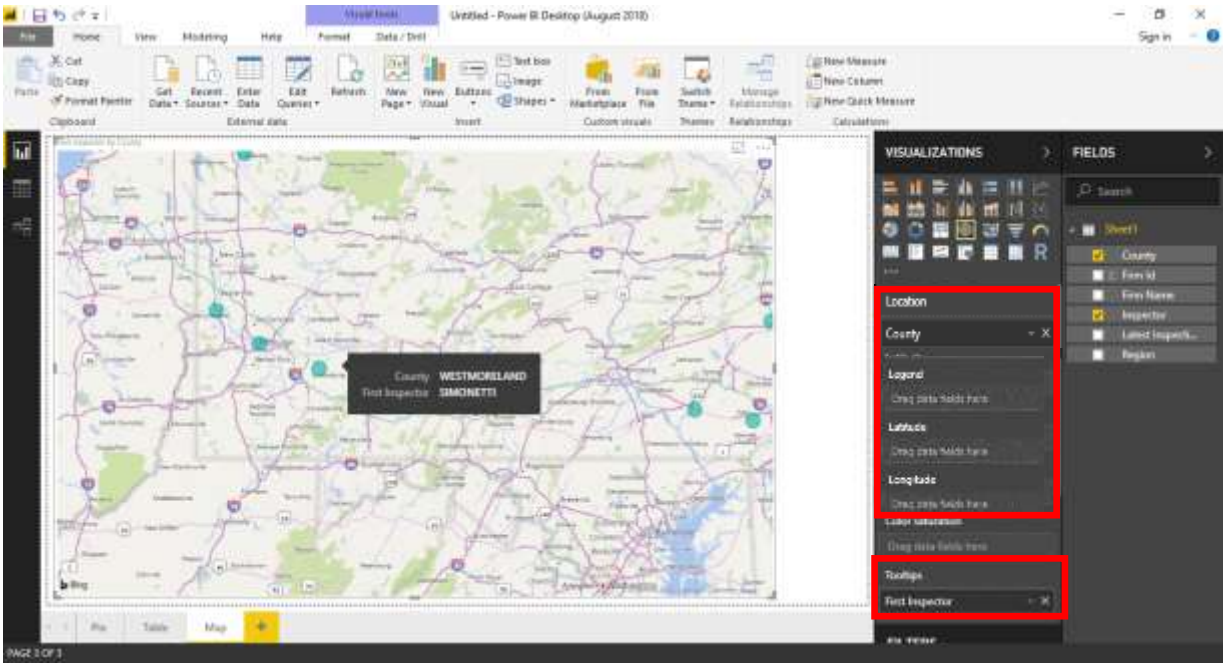
Top right of chart	
	Focus mode: focus on the visual in full screen
	Takes you out of focus mode back to the report
	Click the ellipsis to view more options
	Export data to Excel in .csv file
	Split screen with data below the visual in table format
	Remove the visual
	Highlight one visual and fade out other visuals on the page
	Depending on chart, different sort options for the columns

Map Visual

There are two kinds of maps.

- A bubble map that places a bubble over a geographic point.
- A shape map that shows the outline of area you want to visualize.

Note: *A latitude and longitude must be present in order to map an entity.*

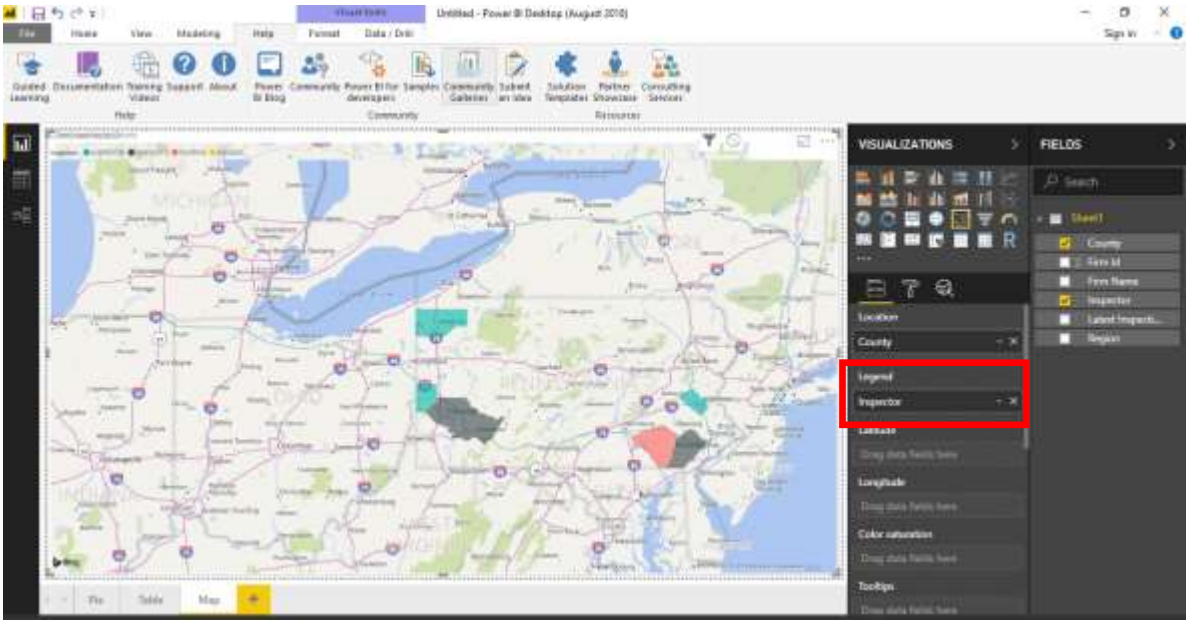


Bubble Map

Add Tooltips

1. Click in a blank area of the Report view canvas.
2. Click the *Map* icon from the *Visualization* pane. Hover the mouse cursor over the icon to see the tool tip.
3. You must add a value to the *Location* well in the visualizations options to use a map visual.
4. Add a field to the *Tooltips* well and when hovering over the point on the map see a tooltip of the field.

Filled Map



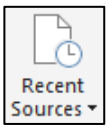
Add a Legend

1. Click in a blank area of the Report view canvas.
2. Click the *Filled Map* icon from the *Visualization* pane. Hover the mouse cursor over the icon to see the tool tip.
3. Add a field to the *Legend* well.

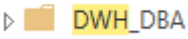
Notes:

Get More Data

You may find that you want to get more data to come into the report you are creating.

1. In any mode, click the 

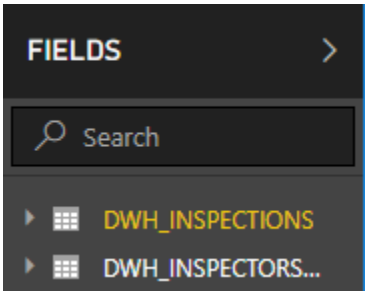
button from the toolbar.
2. Select

and the **Navigator** will open.
3. Type *dwh* in the search field.
4. Expand 

5. Type a keyword in the search field.
6. Put a check in the box next to the desired option and check the *Preview* pane.
    a. Click the

button to load the option.
    b. When given the option, always choose *DirectQuery.*

Delete a Table Query



If you selected more than one table query dataset, in the *Fields* pane, right-click over the table heading and select *Delete* from the menu option.

Export Data to .csv File

1. Click the ellipsis on the top right of a visual.
2. Click *Export Data.*
3. Name and save to the share drive on your computer.

   Note: *The data from the visual will be saved as a .csv file. This will be a static report and not refreshed with current data.*

Export Entire Report to .pbix File

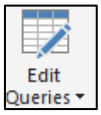
1. Click the File Tab.
2. Select *Save.*
3. Name and save to the share drive on your computer.

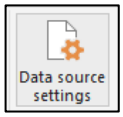
   Note: *The report will be saved as a .pbix file. As long as a user has Power BI Desktop installed on their computer and this report is opened in Power BI Desktop, the data will be refreshed with current data.*

Notes:

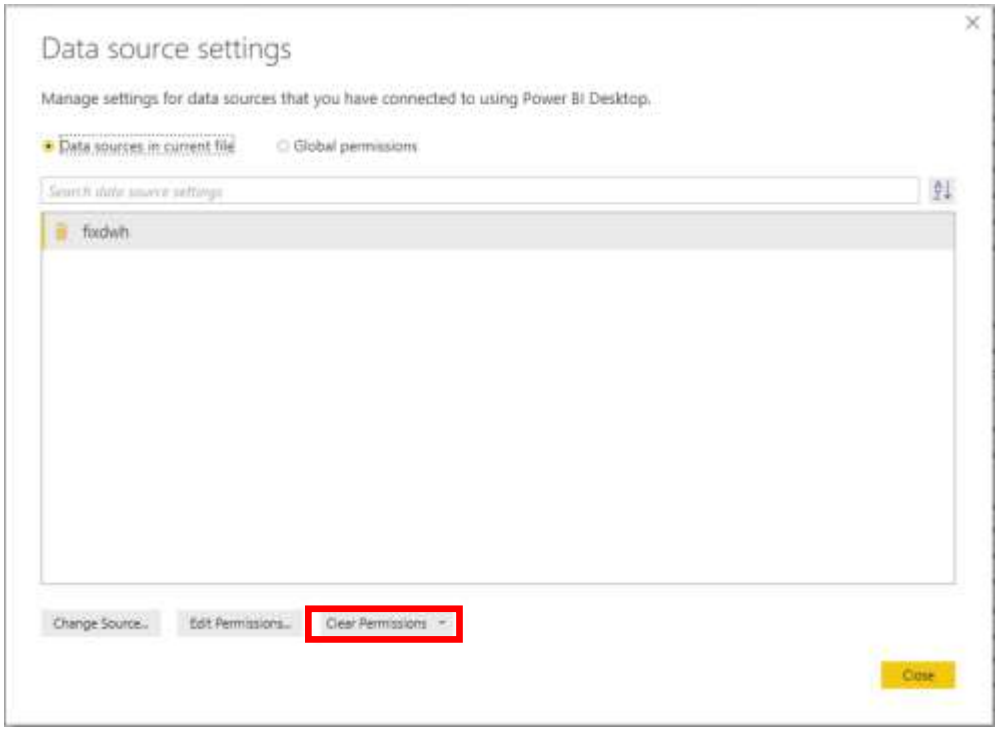
Change Credentials

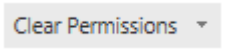
The first time you enter credentials for a data source, it will default to the same account next time you go in. To change the account:

1. From Power BI Desktop, click the 

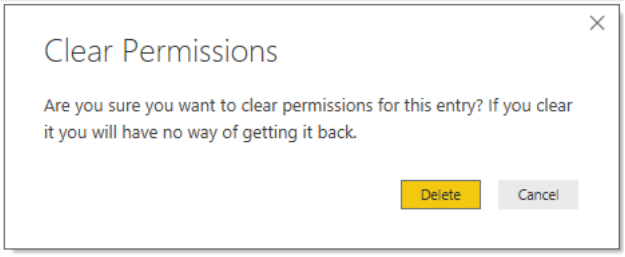
button.
2. Click the 

button.



3. Click the 

button.



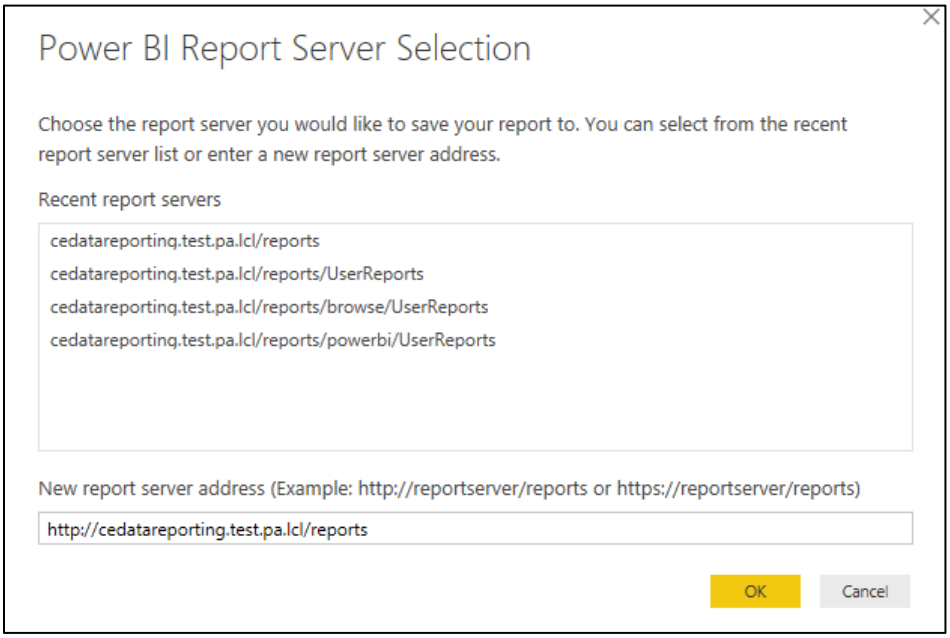
4. Click the **DELETE** button.
5. Click the **CLOSE** button. Close Power BI also.

The next time you connect you will be prompted to enter credentials.

Save to Power BI Server – Publisher Security

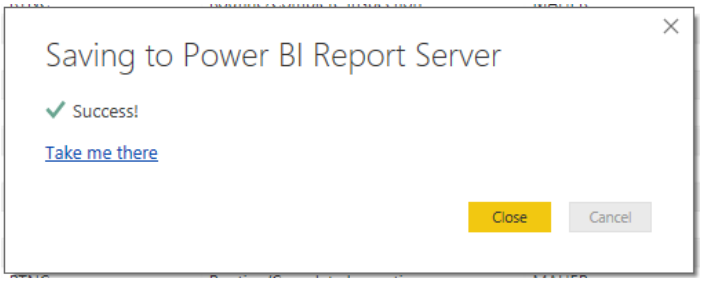
If you have Browser security and would like a report to be published into your program folder, create a ticket. There will be designated person(s) within each program with the *Publisher* security role and the ability to publish reports.

1. Click the File Tab.
2. Select *Save as*
3. Select *Power BI Report Server*. The Power BI Report Server Selection window will display.



4. Make sure the **New report server address** is correct.
   Production: http://cedatareporting.pa.gov/reports/browse/UserReports
5. Click the *OK* button.
6. Open the appropriate program folder.
7. Name the report.

8. Click the *OK* button. A confirmation will pop up.

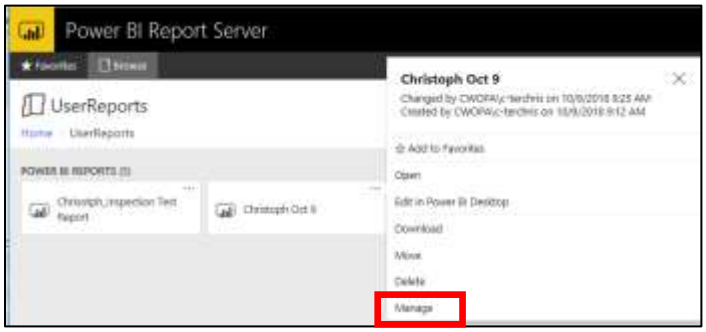


9. Click the *Take me there* link or click the *Close* button.

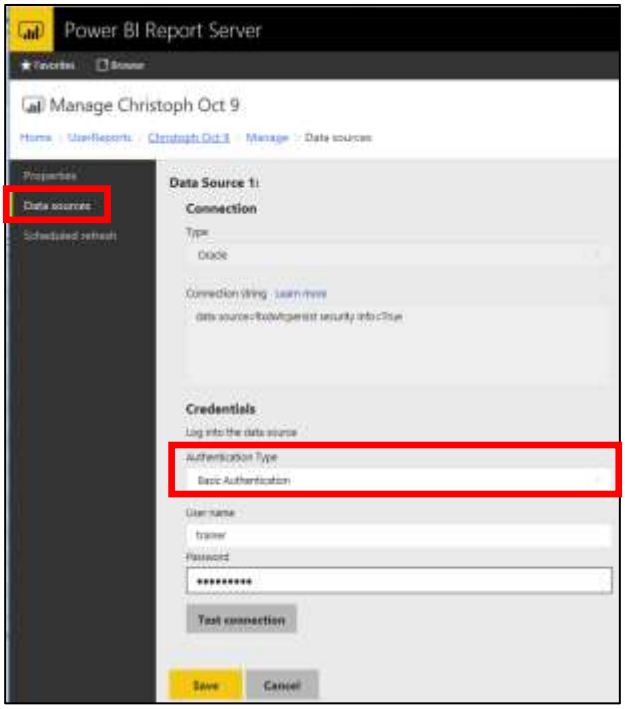
Manage the Report

If you are unable to click the *Take me there* link and open the report, the username and password needs to be the same as the username and password when it was created.

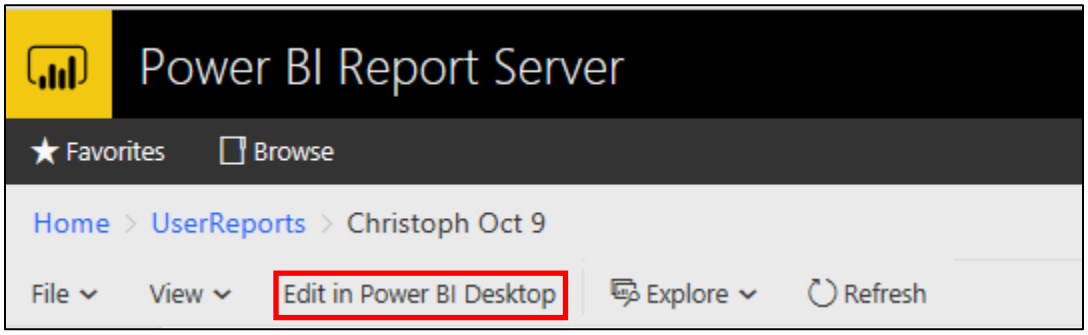
1. Click the breadcrumb to go back to the report.
2. Right-click over the report.
3. Select *Manage*.



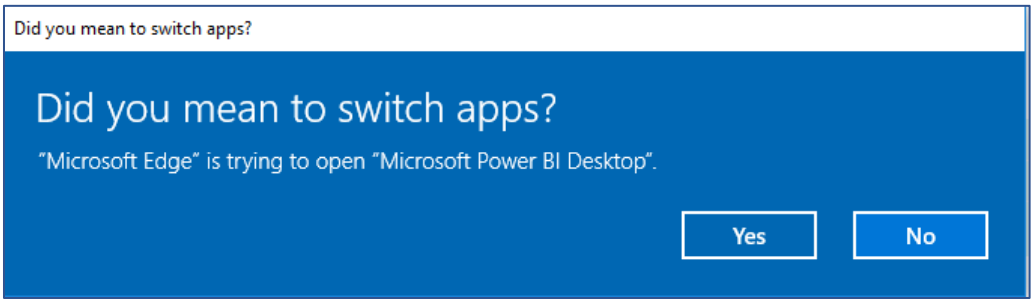
4. From the left pane, select *Data Sources.*
5. Authentication Type: select *Basic Authentication*
6. Enter the same user name and password as when the report was created.
7. Click the **Test connection** button. See a *Success* confirmation.
8. Click the **Save** button. Now you will be able to open the report.



Edit the Report in Report Server



1. Click the *Edit in Power BI Desktop* link. (Only Publisher security will be able to see this link).



2. A pop up will display. Click the *Yes* button.
3. Make your edits.
4. Click the icon and the report will be saved back to the Report Server.