

Tips & Tricks

A step by step guide to boost your BI skills

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TIP 1

Direct Query

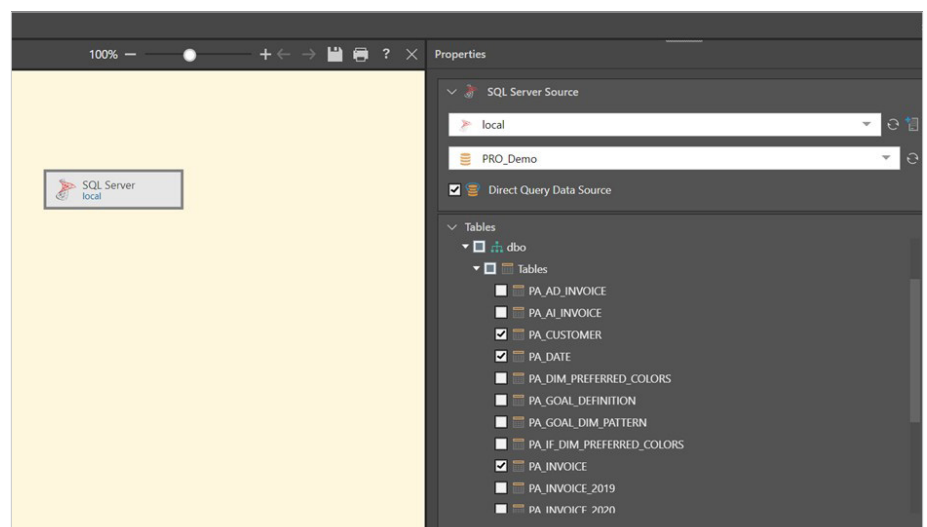
Direct querying is powerful because it requires minimal setup and ensures that queries are built with the real-time data. As there is no data model output, there is no need to create any scheduling. Instead, whenever a user builds a query, Pyramid queries the actual data source, rather than data that was copied into Pyramid.

When setting up direct querying for a data source, additional nodes cannot be connected to a direct query data source node. Once you've selected this option you can continue directly to the Data Model part of the ETL, where you can construct the semantic data model.

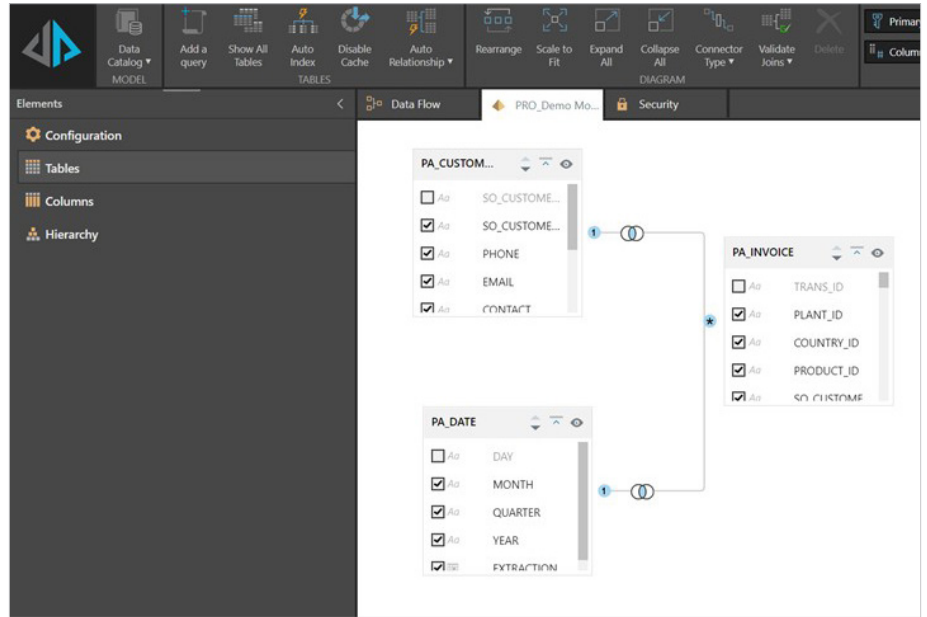
Pyramid provides a list of built-in data sources and those that support direct query **here**.

- 1 Add the data source to be queried directly to the model data flow. Select the server and database then click the box "Direct Query Data Source".

Next select the tables that will be available in the direct query. Note that the "Add Tables" button is greyed out with the direct query option.



2 Once the tables have been selected click on the “Data Model” tab and give the model a name. Then select the tables elements to confirm the joins between the tables, similarly the columns and Hierarchies elements can be adjusted as per the standard model functionality.



3 Process the model and the tables, and now the dimensions and measure are available in discover. The data is directly queried from the source database each time the discover is run.

YEAR	INVOICE_REVENUE
2019	455,922,058.00
2020	802,903,895.00
2021	589,639,852.00
2022	205,199,560.00

TIP 2

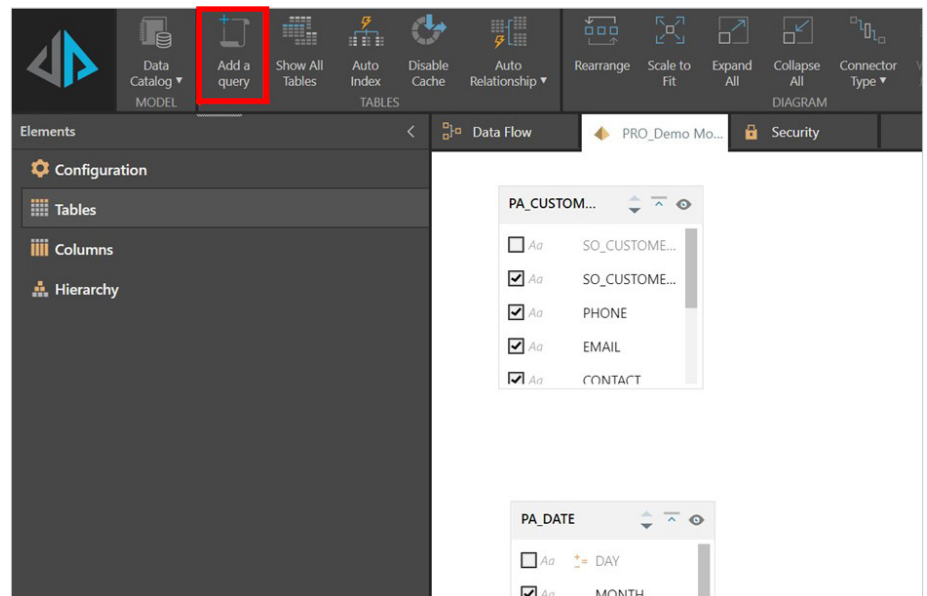
Direct Query – Creating Custom Tables

The functionality in the direct query of a data source can be extended to create custom tables from SQL script instead of selecting whole tables or views in the model data flow.

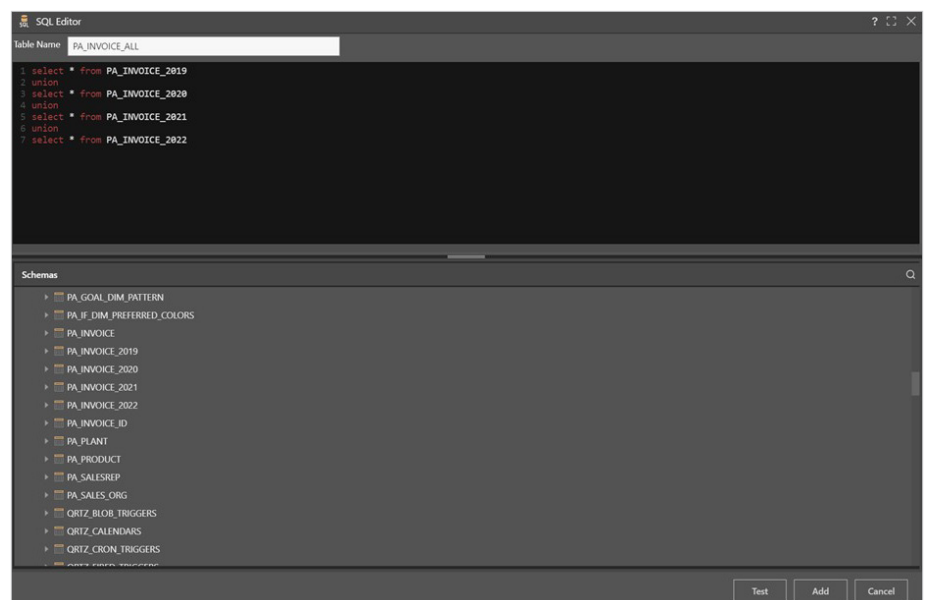
There are many use cases for this feature including migrating reports to Pyramid that were previously based on a complex SQL query bring the data together from several joined tables.

The example here is when a user would like to combine the results sets of 2 or more select statements in a union operation. Let's take the example that there are independent tables for invoices in each financial year. Table named PA_Invoice_2019 contains all the invoices for financial year 2019. There is an identically structured table with the invoices for 2020 etc.

- 1 Create a model as in Tip 1, selecting the server and database then click the box "Direct Query Data Source". Navigate to the "Data Model" tab and the tables element. Click on the "Add a Query" option.

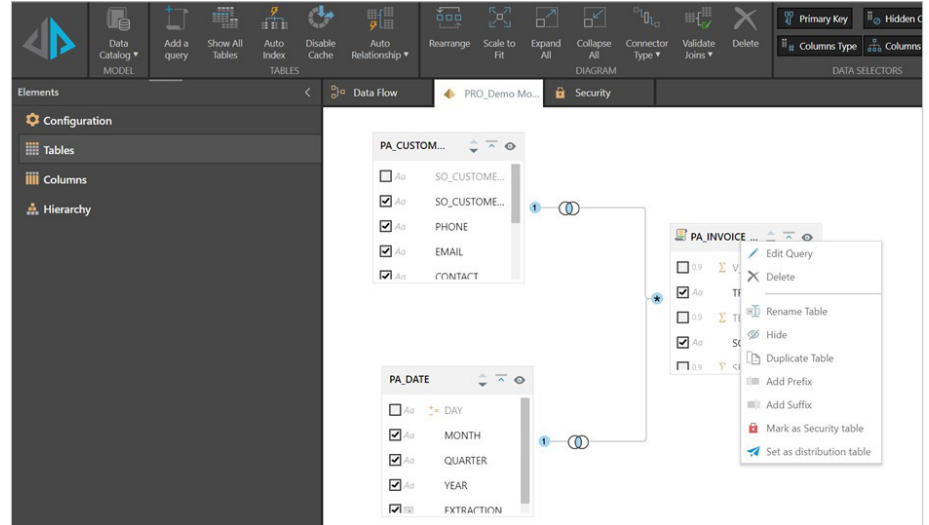


In the query window complete or paste in the SQL query. Then click on the "test" option and if it passes click "add". Note you must give the query a "Table Name" in the dialogue box before testing and saving.



2 The new table formed from the custom query then becomes available in your data model. Note the custom query can be combined with whole tables selected in the "Data Flow" and it is possible to add multiple custom queries to the same model.

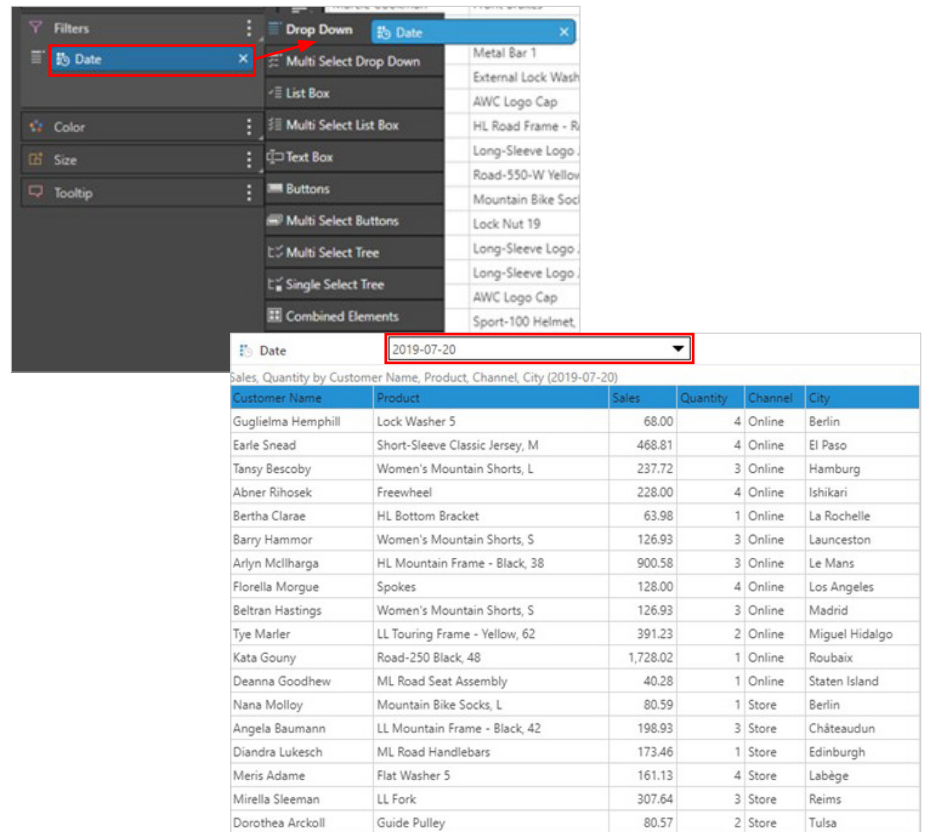
To edit or delete the query right click on the table name and select the corresponding option from the list.



TIP 3

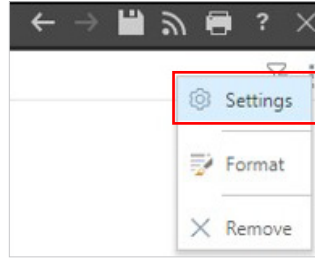
Initial Selection for Slicers

1 Open a report in which the Date parameter is inserted in the Drop Zones > Filters > Drop Down.



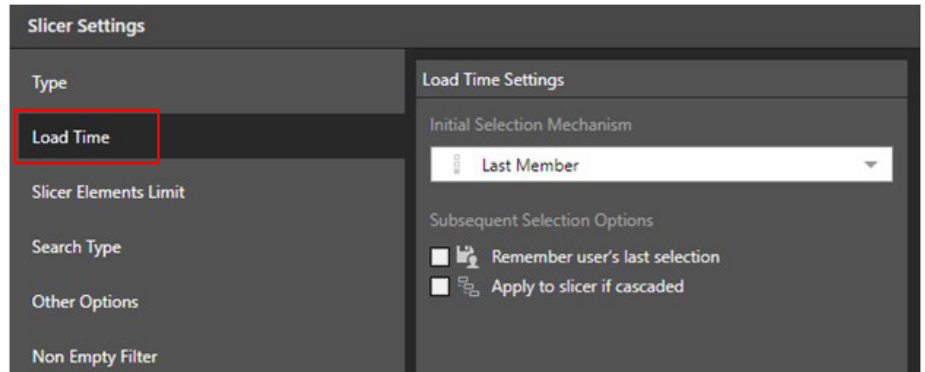
The filter value will default to the value when the Discover object was last saved. Use the 'Initial Selection Mechanism' in Load Time option, to change the default filter value.

- 2 Select the Filter Settings option to change the style and behaviour of the Filter.



- 3 Select Load Time > update Initial Selection Mechanism to = "Last Member" ("First Member" is an option as well).

Typically, Date attributes in a model are updated as new transaction data is appended to the model. This means additional elements are added to the Date attribute. In this example the 'last member' option will mean the Discover object will default to the latest date.



- 4 Click on Save and Close Discover Report.



- 5 Open Discover report and notice that Date within filter is the latest date available in the slicer.

 A screenshot of a Discover report. At the top, there is a filter for 'Date' with a dropdown menu showing '2021-12-30', which is highlighted with a red box. Below the filter is a table with the following data:

Customer Name	Product	Sales	Quantity	Channel	City
Rubina Saunders	LL Road Frame - Black, 44	436.97	2	Online	Carlsbad
Bernadene MacMeanma	Half-Finger Gloves, L	81.08	3	Online	East End
Gael Jansky	Short-Sleeve Classic Jersey, S	30.60	1	Online	El Aguacate
Tansy Lapish	LL Mountain Frame - Black, 44	1,256.12	4	Online	Ishigaki
Scot Yewman	HL Touring Frame - Blue, 54	283.12	2	Online	Jamaica
Yorker Albaraz	Metal Sheet 3	210.00	3	Online	Kashima
Bradán Simak	LL Mountain Frame - Black, 40	695.19	4	Online	Kashiwazaki
Conny De Blasio	ML Road Frame-W - Yellow, 38	313.98	1	Online	Kinloch