



Using ODBC Driver with TMVGate

Technical Note: TA2019006



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1.0 Overview

One of the key features of TMVGate is the fact that users do not have to install any client software or ODBC drivers on their workstation.

However, if you prefer to use an ODBC driver instead of the current TMVGate URL-based query, you may implement third party Rest API ODBC Driver solutions.

Two such solutions available in the market are:

ZappySys: <https://zappysys.com/products/odbc-powerpack/>

CData: <https://www.cdata.com/drivers/csv/>

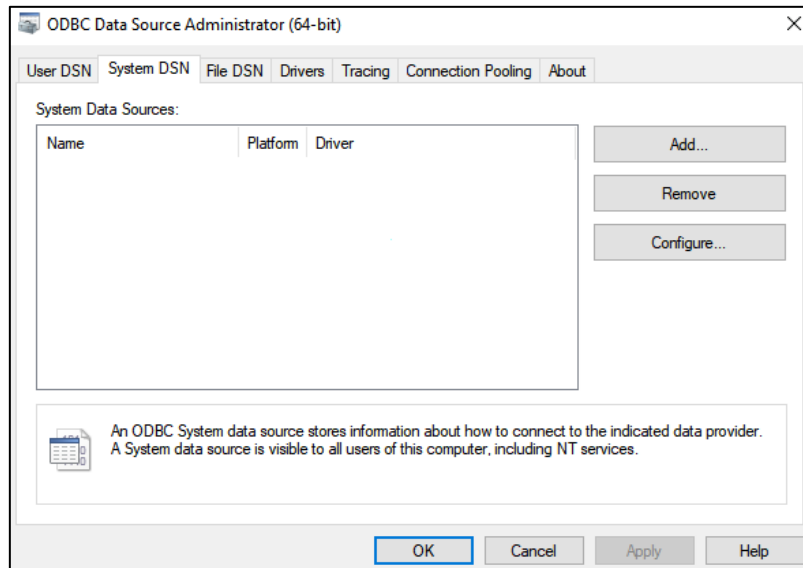
This technical document aims to provide a general guide on how users can configure the ZappySys CSV ODBC Driver with TMVGate to enable an ODBC-based data source with Power BI and Tableau. The approach will be similar to all other BI Tools.

Please direct all queries to the respective ODBC Driver solution providers.

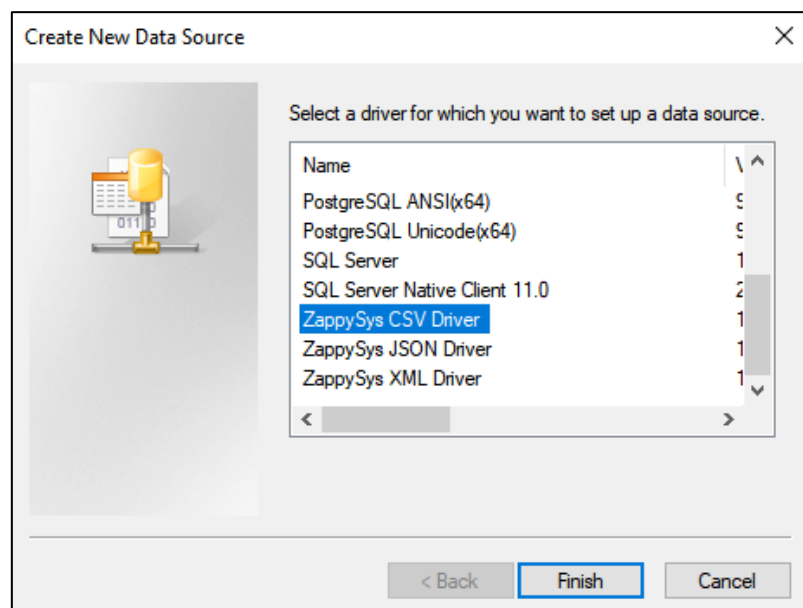
2.0 Defining ZappySys CSV ODBC Driver DSN

To configure the ZappySys CSV ODBC Driver DSN, follow these steps:

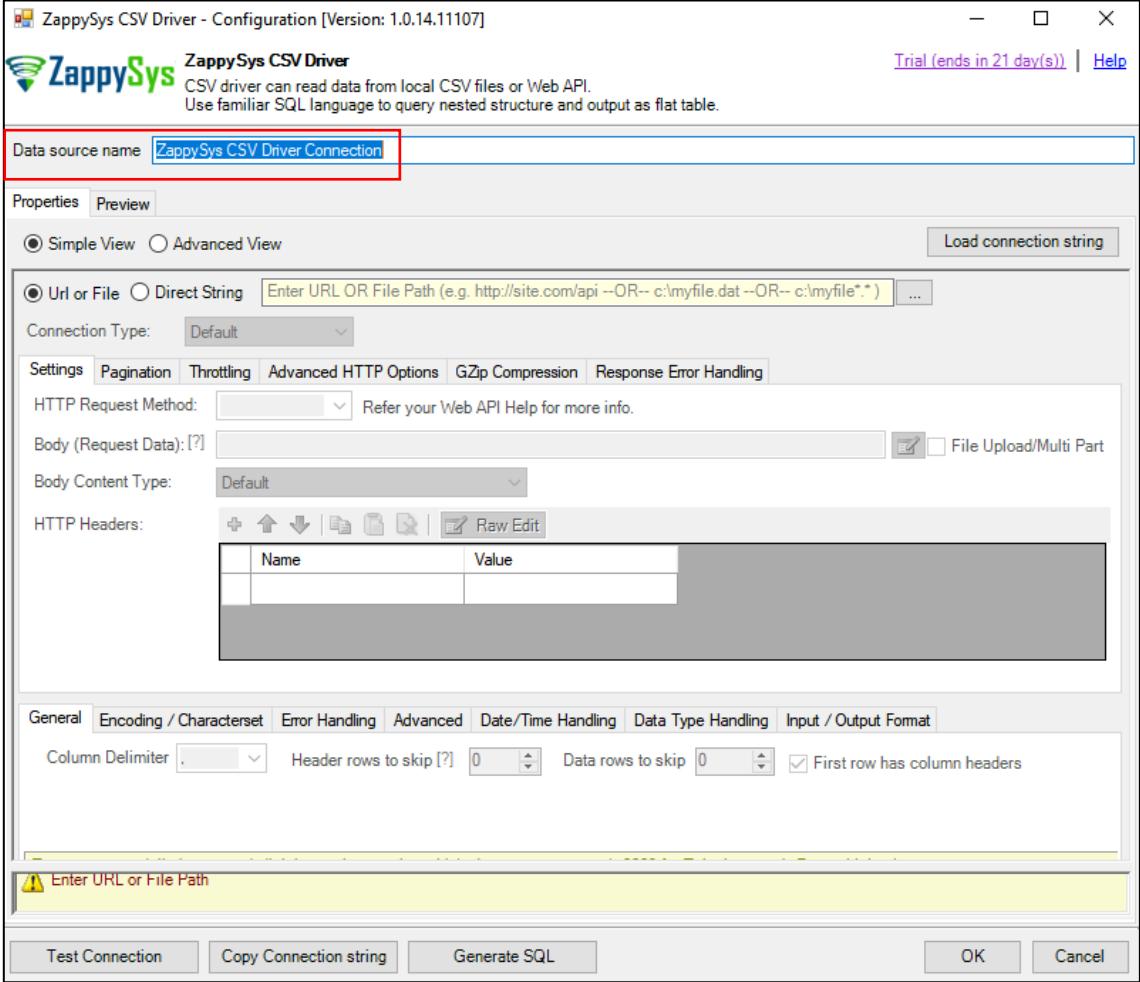
- Start up ODBC Data Source Administrator Tools



- Select System DSN or File DSN tab. Click “Add” to add a new Data Source DSN. Select ZappySys CSV Driver.



- ZappySys CSV Driver Configuration screen will launch. You can enter your desired data source name as highlighted.



ZappySys CSV Driver - Configuration [Version: 1.0.14.11107]

ZappySys CSV Driver
 CSV driver can read data from local CSV files or Web API.
 Use familiar SQL language to query nested structure and output as flat table.

[Trial \(ends in 21 day\(s\)\)](#) | [Help](#)

Data source name: **ZappySys CSV Driver Connection**

Properties | Preview

☒ Simple View ☐ Advanced View Load connection string

☒ Url or File ☐ Direct String Enter URL OR File Path (e.g. http://site.com/api --OR-- c:\myfile.dat --OR-- c:\myfile*.*) ...

Connection Type: Default

Settings | Pagination | Throttling | Advanced HTTP Options | GZip Compression | Response Error Handling

HTTP Request Method: Refer your Web API Help for more info.

Body (Request Data): [?] File Upload/Multi Part

Body Content Type: Default

HTTP Headers: Raw Edit

Name	Value

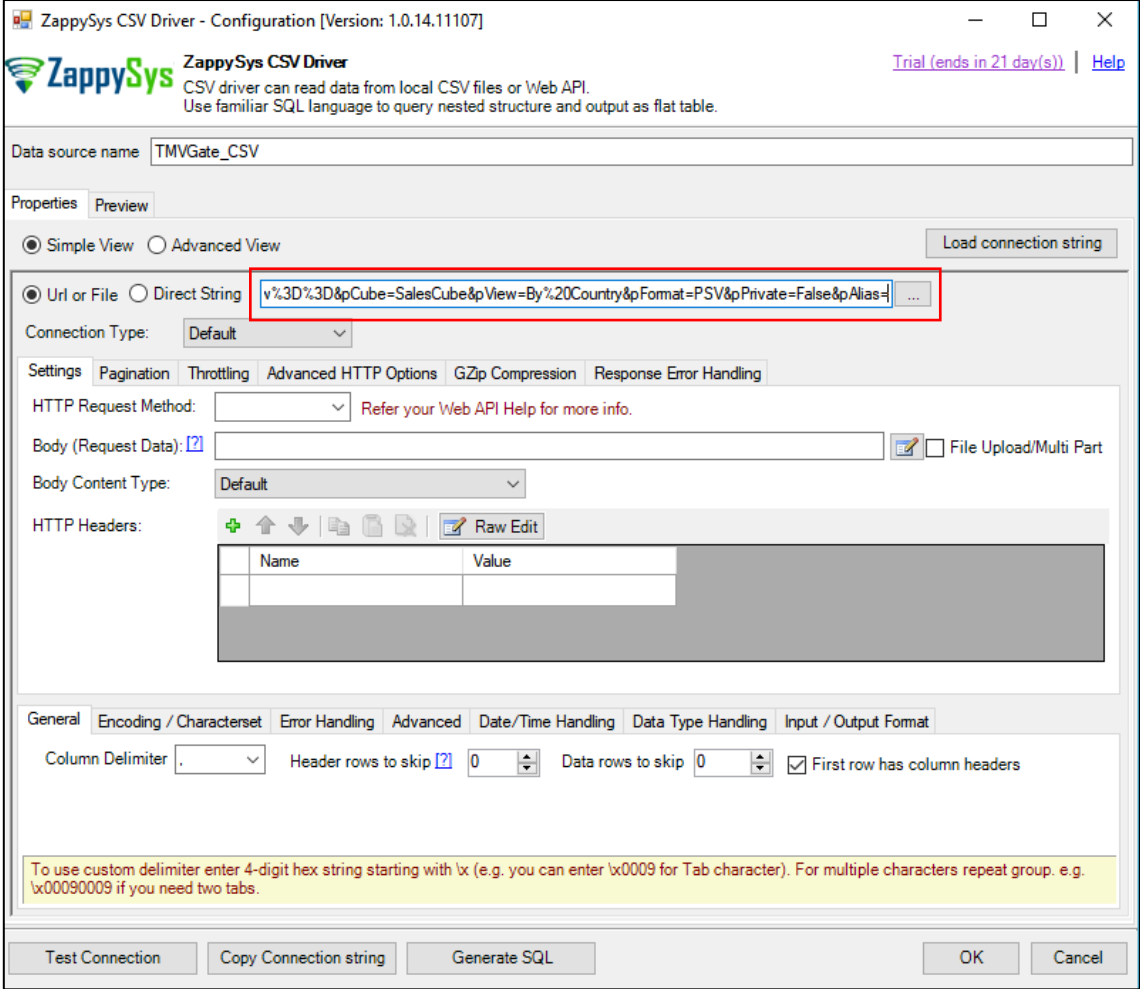
General | Encoding / Characterset | Error Handling | Advanced | Date/Time Handling | Data Type Handling | Input / Output Format

Column Delimiter: Header rows to skip [?]: 0 Data rows to skip: 0 ☒ First row has column headers

Enter URL or File Path

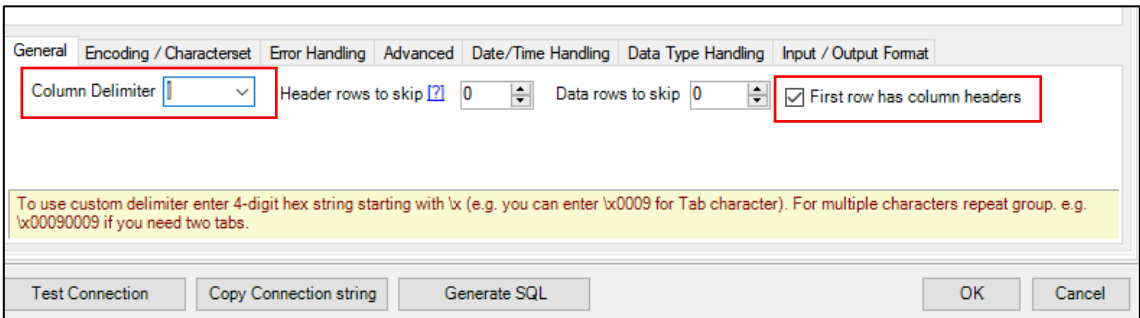
Test Connection Copy Connection string Generate SQL OK Cancel

- Copy the TMVGate URL generated from the URL Generator and paste it in the box labelled “Enter UR OR File Path.....”.



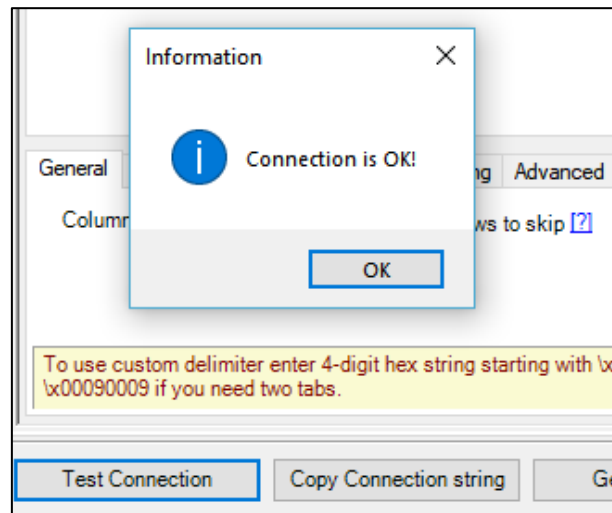
The screenshot shows the 'ZappySys CSV Driver - Configuration' window. The 'Data source name' is 'TMVGate_CSV'. Under 'Properties', 'Simple View' is selected. The 'Url or File' radio button is selected, and the URL 'v%3D%3D&pCube=SalesCube&pView=By%20Country&pFormat=PSV&pPrivate=False&pAlias=' is entered in the text box. The 'Connection Type' is 'Default'. The 'Settings' tab is active, showing 'HTTP Request Method' as 'GET' and 'Body (Request Data)' as an empty text box. The 'HTTP Headers' section is empty. The 'General' tab is selected, showing 'Column Delimiter' as a dropdown menu, 'Header rows to skip' as '0', 'Data rows to skip' as '0', and the 'First row has column headers' checkbox checked. A yellow note at the bottom states: 'To use custom delimiter enter 4-digit hex string starting with \x (e.g. you can enter \x0009 for Tab character). For multiple characters repeat group. e.g. \x00090009 if you need two tabs.'

- Specify the parameter for Column Delimiter. In this example, we are using PSV format. Check “First row has column headers”.

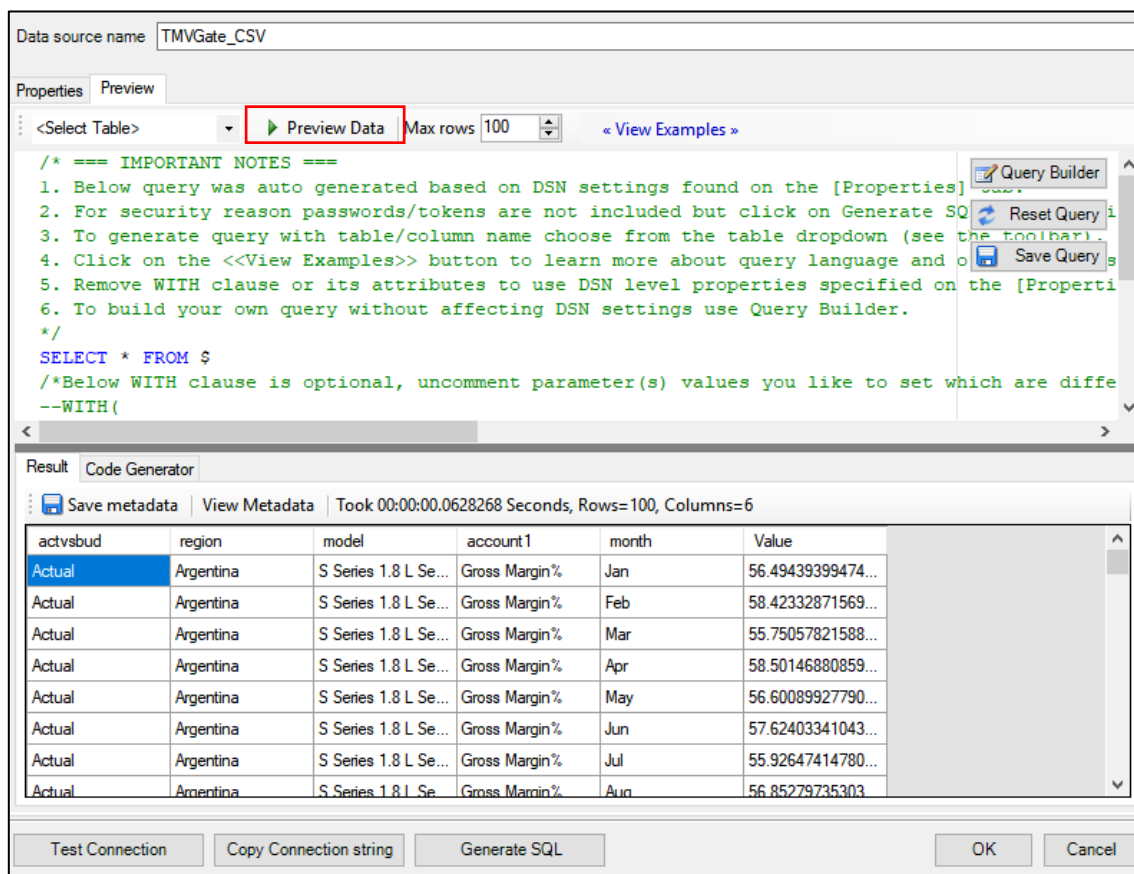


This screenshot is a close-up of the 'General' tab in the configuration window. The 'Column Delimiter' dropdown menu is highlighted with a red box. The 'Header rows to skip' is set to '0', 'Data rows to skip' is set to '0', and the 'First row has column headers' checkbox is checked and also highlighted with a red box. The same yellow note about custom delimiters is visible at the bottom.

- You can specify Advanced HTTP options such as timeout.



- Click on the “Preview” tab followed by “Preview Data”. You should be able to view the data returned from TMVGate. Click “OK” to save the ODBC DSN definition.



Data source name: TMVGate_CSV

Properties Preview

<Select Table> Preview Data Max rows: 100 << View Examples >>

```

/* === IMPORTANT NOTES ===
1. Below query was auto generated based on DSN settings found on the [Properties]
2. For security reason passwords/tokens are not included but click on Generate SQL
3. To generate query with table/column name choose from the table dropdown (see the toolbar)
4. Click on the <<View Examples>> button to learn more about query language and o
5. Remove WITH clause or its attributes to use DSN level properties specified on the [Properti
6. To build your own query without affecting DSN settings use Query Builder.
*/
SELECT * FROM $
/*Below WITH clause is optional, uncomment parameter(s) values you like to set which are diffe
--WITH(

```

Query Builder Reset Query Save Query

Result Code Generator

Save metadata View Metadata Took 00:00:00.0628268 Seconds, Rows=100, Columns=6

actvsbud	region	model	account 1	month	Value
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Jan	56.49439399474...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Feb	58.42332871569...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Mar	55.75057821588...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Apr	58.50146880859...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	May	56.60089927790...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Jun	57.62403341043...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Jul	55.92647414780...
Actual	Argentina	S Series 1.8 L Se...	Gross Margin%	Aug	56.85279735303...

Test Connection Copy Connection string Generate SQL OK Cancel

You are now ready to utilize the ODBC DSN definition in the BI Tool of your choice.

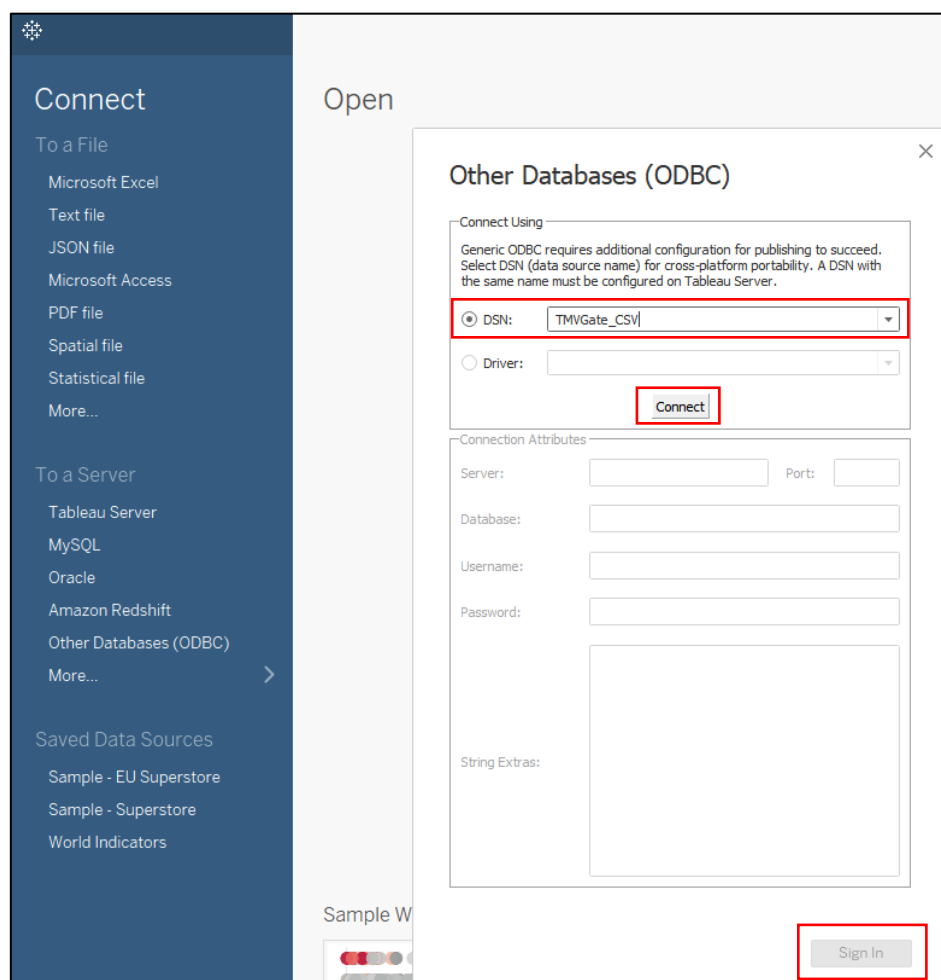
3.0 Using ZappySys CSV ODBC Driver DSN with Tableau

To configure Tableau using the ZappySys CSV ODBC Driver DSN, follow the steps below:

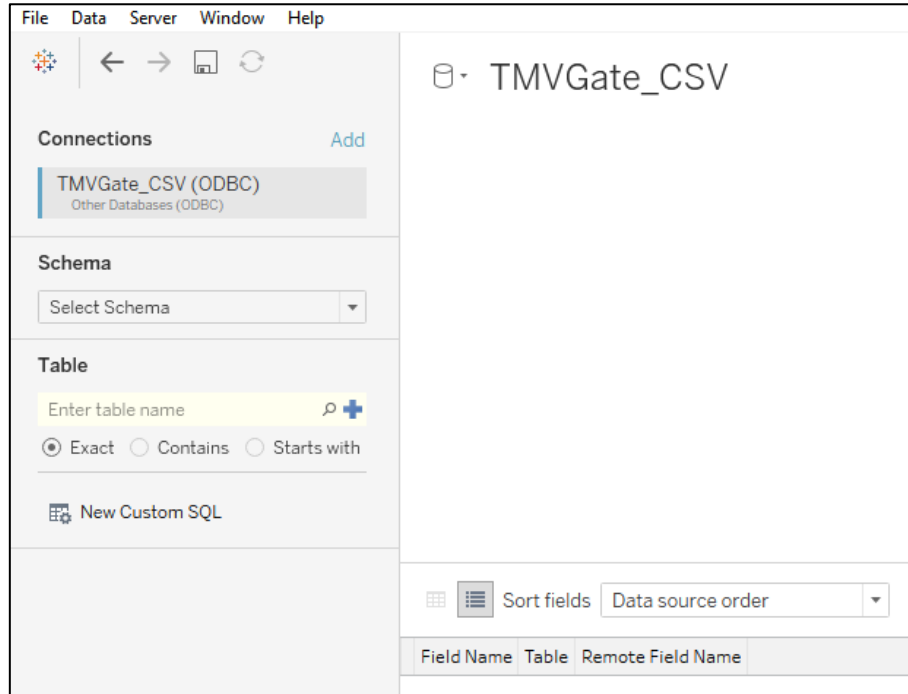
- Select Other Databases (ODBC) from Tableau.

Select the refined ZappySys ODBC DSN.

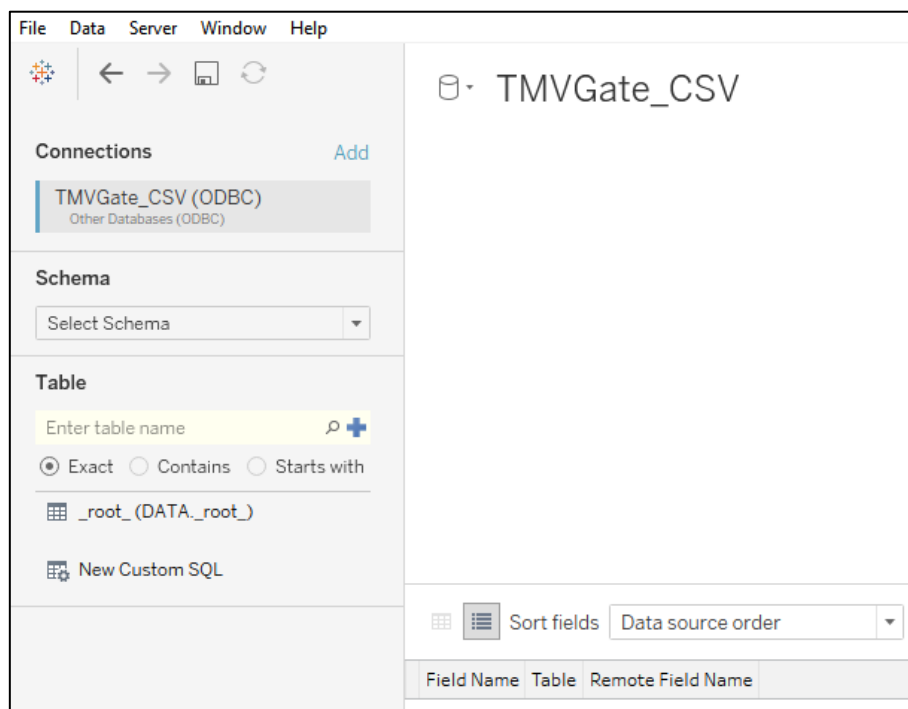
Click “Connect”, followed by “Sign In” (when the button turns Orange)



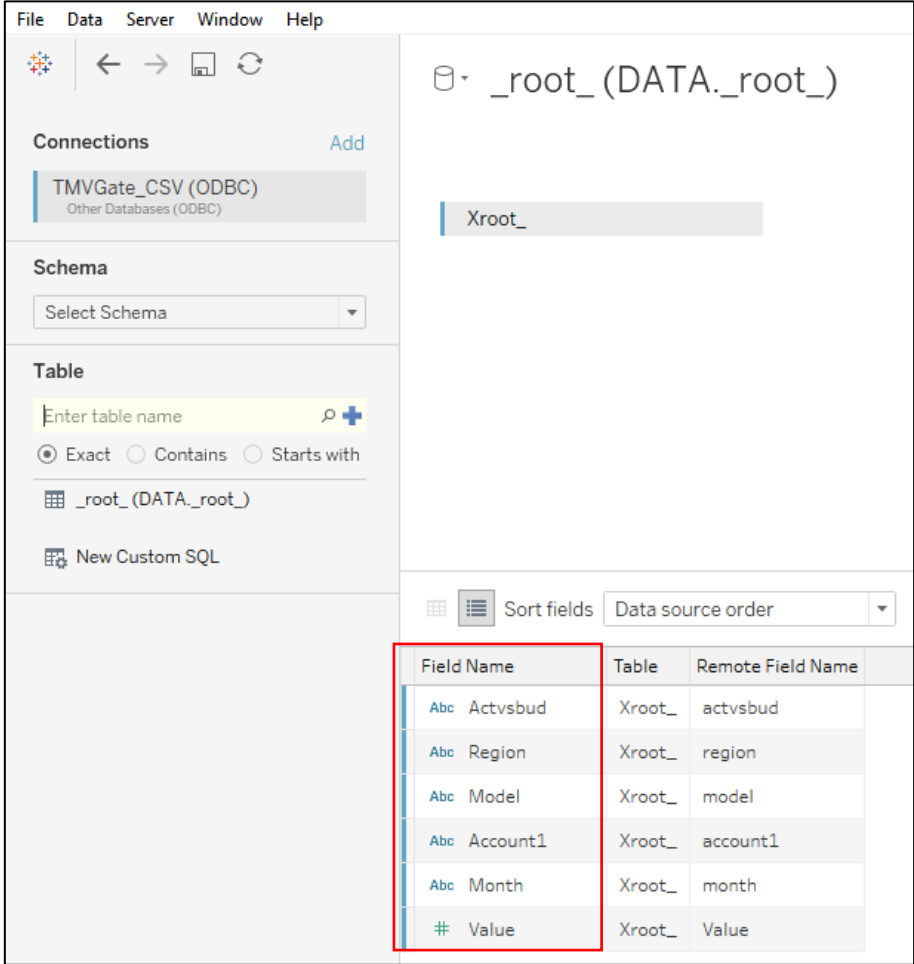
- Notice that the Connection has been added.



- Click on the Search Icon beside the Enter Table Name input box, and the table name `_root_(Data_root_)` will appear.



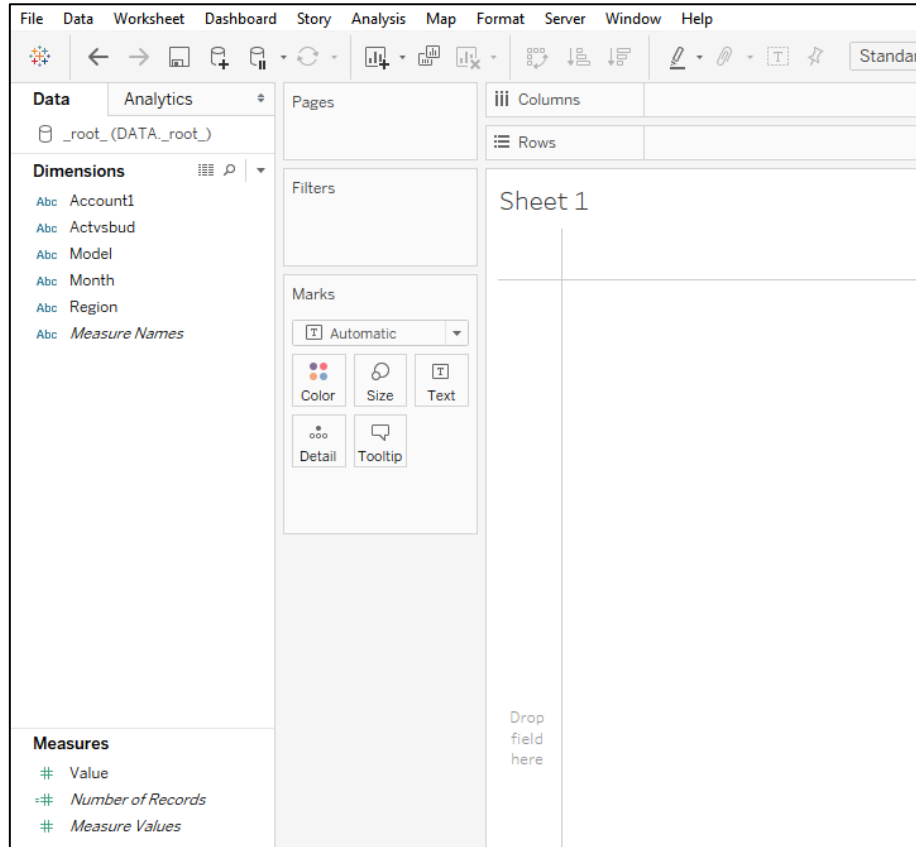
- Double-click on the table `_root_(Data_root_)`. All the data fields extracted via TMVGate will be exposed.



The screenshot shows the TMVGate application window. The left sidebar contains a 'Connections' section with 'TMVGate_CSV (ODBC)' selected, a 'Schema' section with a 'Select Schema' dropdown, and a 'Table' section with a search bar and radio buttons for 'Exact', 'Contains', and 'Starts with'. The main area displays the selected table `_root_(DATA._root_)` and a list of fields. The fields are sorted by 'Data source order'.

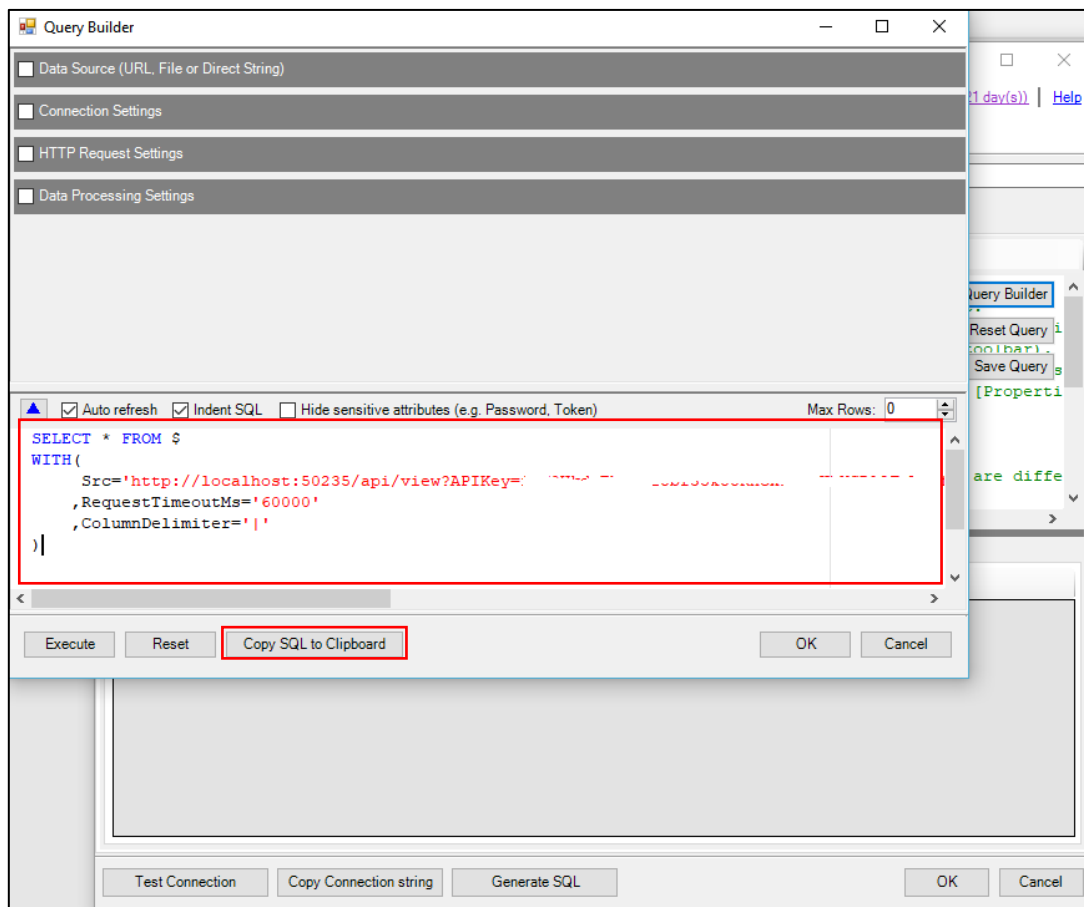
Field Name	Table	Remote Field Name
Abc Actvsbud	Xroot_	actvsbud
Abc Region	Xroot_	region
Abc Model	Xroot_	model
Abc Account1	Xroot_	account1
Abc Month	Xroot_	month
# Value	Xroot_	Value

- You can now click on “Worksheet” to start working with your report.



If you want full control over TMVGate URL within Tableau instead of what's defined in the ZappySys CSV ODBC Driver DSN, follow the steps listed:

- Open the ZappySys ODBC DSN definition via the ODBC Data Source Administrator Tools. Click on the "Preview" tab followed by "Query Builder". Notice the SQL statement generated. Copy the SQL to the Clipboard.

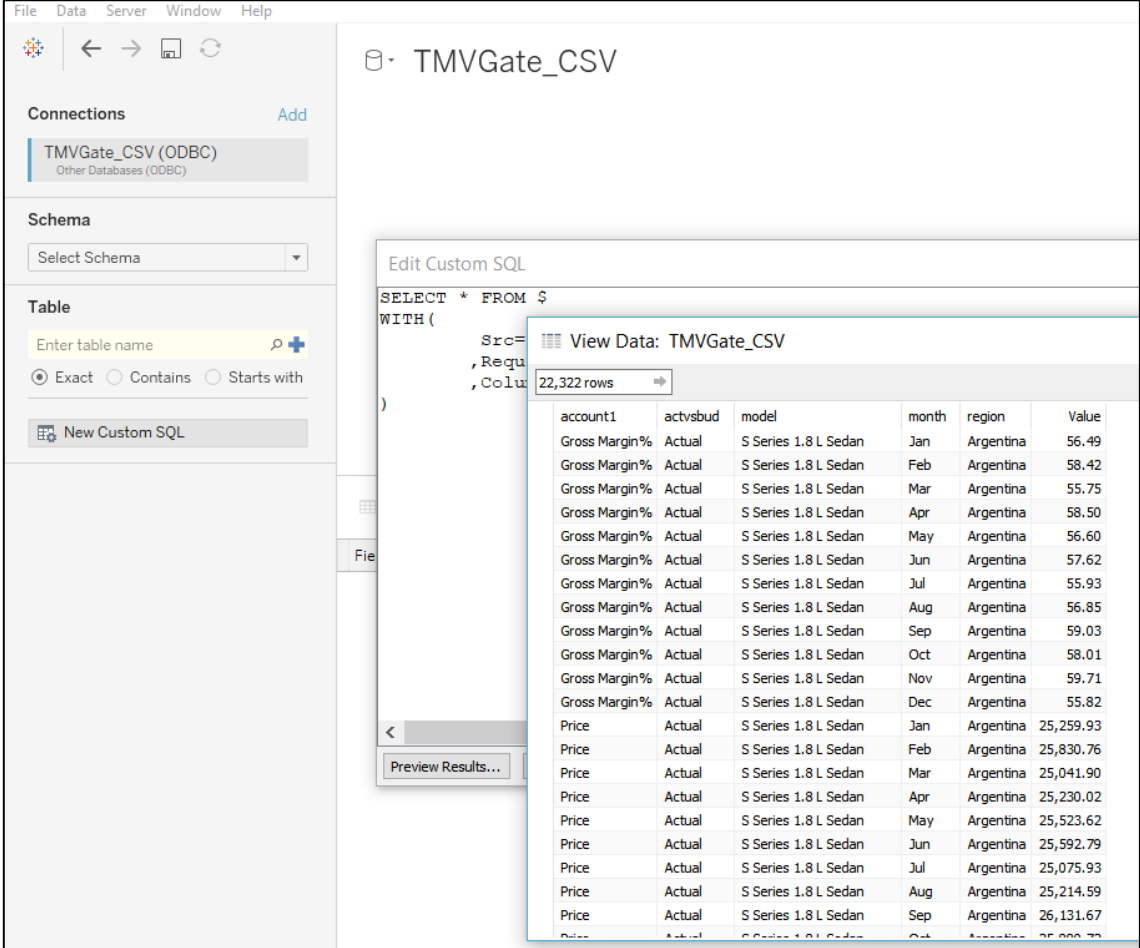




- The screenshot displays the TMVGate application interface. The top menu bar includes 'File', 'Data', 'Server', 'Window', and 'Help'. The left sidebar contains three main sections: 'Connections', 'Schema', and 'Table'. In the 'Connections' section, 'TMVGate_CSV (ODBC)' is selected under 'Other Databases (ODBC)'. The 'Schema' section has a dropdown menu labeled 'Select Schema'. The 'Table' section has a text input 'Enter table name' with a search icon and a plus sign, and three radio buttons: 'Exact' (selected), 'Contains', and 'Starts with'. Below these is a button labeled 'New Custom SQL' which is highlighted with a red rectangle. The main area on the right shows a database icon and the text 'TMVGate_CSV'. At the bottom, there is a 'Sort fields' dropdown menu set to 'Data source order' and a table header with columns 'Field Name', 'Table', and 'Remote Field Name'.

-
- The screenshot shows the DBeaver application window. On the left sidebar, under "Connections", there is a connection named "TMVGate_CSV (ODBC)". Below it, under "Schema", is a dropdown menu labeled "Select Schema". Under "Table", there is a text input field "Enter table name" and three radio buttons: "Exact", "Contains", and "Starts with". At the bottom of the sidebar is a button "New Custom SQL". The main area displays the connection name "TMVGate_CSV". A dialog box titled "Edit Custom SQL" is open in the foreground. It contains a SQL query:
- ```
SELECT * FROM $
WITH (
 Src='http://localhost:50235/api/view?APIKey=fcc7m3j..w''
 ,RequestTimeoutMs='60000'
 ,ColumnDelimiter='|'
)|
```
- The URL part of the query is highlighted with a red rectangle. At the bottom of the dialog are buttons for "Preview Results...", "Insert Parameter", "OK", and "Cancel".

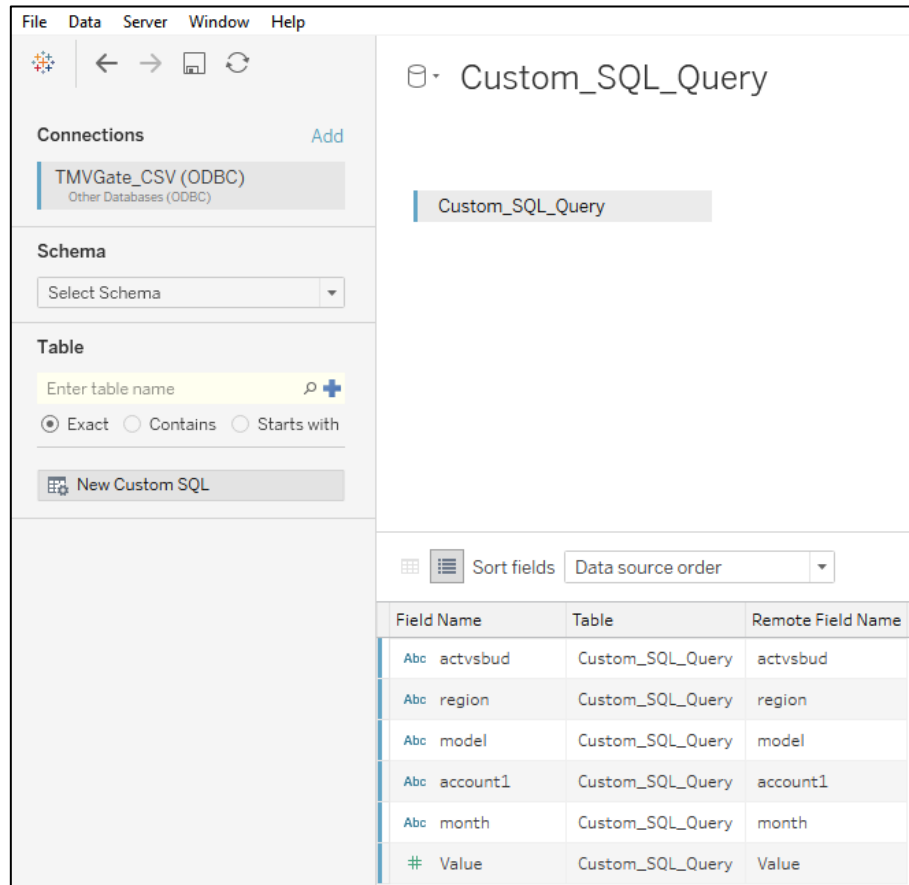
- Click “Preview Result” to view the data from TMVGate based on the specific URL defined.



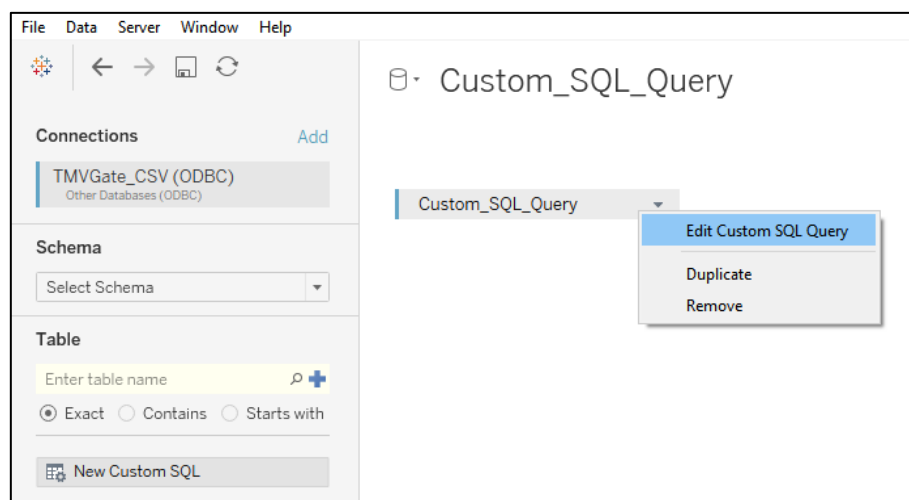
The screenshot shows the TMVGate application interface. On the left, there is a sidebar with sections for 'Connections' (showing 'TMVGate\_CSV (ODBC)' and 'Other Databases (ODBC)'), 'Schema' (with a 'Select Schema' dropdown), and 'Table' (with an 'Enter table name' field and radio buttons for 'Exact', 'Contains', and 'Starts with'). A 'New Custom SQL' button is also present. The main area is titled 'TMVGate\_CSV' and contains an 'Edit Custom SQL' window. Below the SQL editor, there is a 'Preview Results...' button. A 'View Data: TMVGate\_CSV' window is open, displaying a table with 22,322 rows. The table has columns: account1, actvsbud, model, month, region, and Value. The data shows monthly values for 'Gross Margin%' and 'Price' for 'S Series 1.8 L Sedan' in 'Argentina' from January to December.

| account1      | actvsbud | model                | month | region    | Value     |
|---------------|----------|----------------------|-------|-----------|-----------|
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Jan   | Argentina | 56.49     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Feb   | Argentina | 58.42     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Mar   | Argentina | 55.75     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Apr   | Argentina | 58.50     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | May   | Argentina | 56.60     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Jun   | Argentina | 57.62     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Jul   | Argentina | 55.93     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Aug   | Argentina | 56.85     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Sep   | Argentina | 59.03     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Oct   | Argentina | 58.01     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Nov   | Argentina | 59.71     |
| Gross Margin% | Actual   | S Series 1.8 L Sedan | Dec   | Argentina | 55.82     |
| Price         | Actual   | S Series 1.8 L Sedan | Jan   | Argentina | 25,259.93 |
| Price         | Actual   | S Series 1.8 L Sedan | Feb   | Argentina | 25,830.76 |
| Price         | Actual   | S Series 1.8 L Sedan | Mar   | Argentina | 25,041.90 |
| Price         | Actual   | S Series 1.8 L Sedan | Apr   | Argentina | 25,230.02 |
| Price         | Actual   | S Series 1.8 L Sedan | May   | Argentina | 25,523.62 |
| Price         | Actual   | S Series 1.8 L Sedan | Jun   | Argentina | 25,592.79 |
| Price         | Actual   | S Series 1.8 L Sedan | Jul   | Argentina | 25,075.93 |
| Price         | Actual   | S Series 1.8 L Sedan | Aug   | Argentina | 25,214.59 |
| Price         | Actual   | S Series 1.8 L Sedan | Sep   | Argentina | 26,131.67 |
| Price         | Actual   | S Series 1.8 L Sedan | Oct   | Argentina | 25,200.73 |

- Click “OK” to save the Custom SQL definition. Note that you can edit the statement when required. You can now proceed to the Worksheet with the report.



- You can always Edit the Custom SQL Query when required.

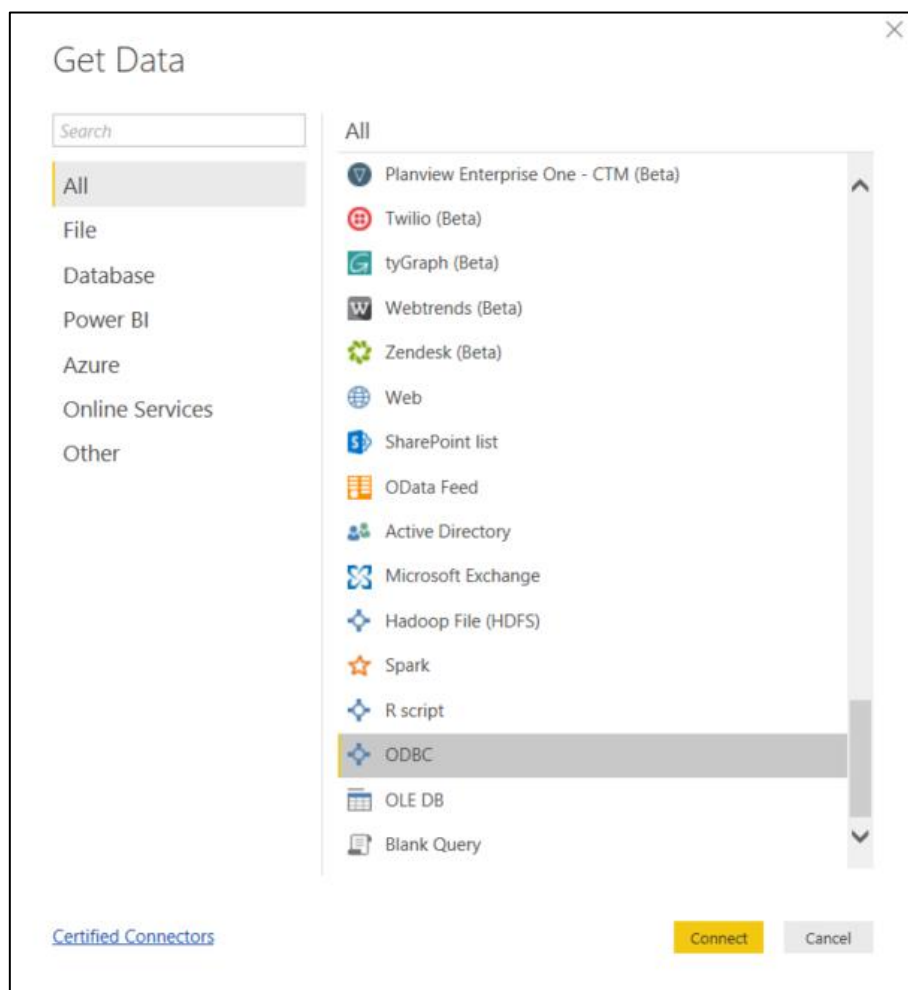




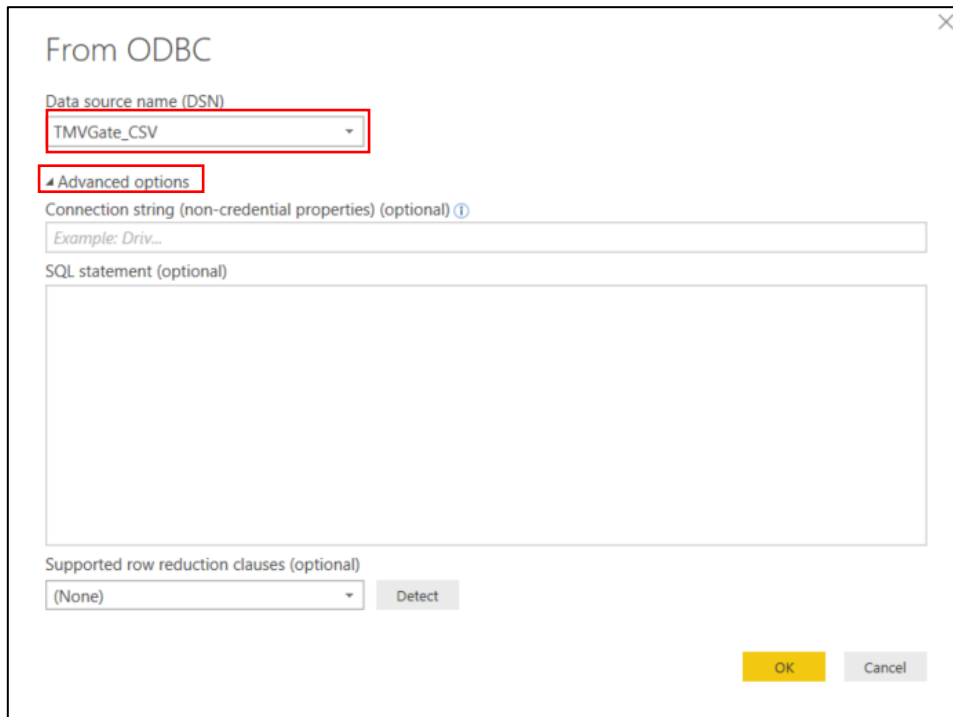
## 4.0 Using ZappySys CSV ODBC Driver DSN with Power BI

To configure Power BI using the ZappySys CSV ODBC Driver DSN, follow these steps:

- Select ODBC from Power BI.



- Select the refined ZappySys ODBC DSN. Select Advanced Options.



From ODBC

Data source name (DSN)  
TMVGate\_CSV

Advanced options

Connection string (non-credential properties) (optional) ⓘ  
Example: Driv...

SQL statement (optional)

Supported row reduction clauses (optional)  
(None) Detect

OK Cancel

- Copy the ZappySys ODBC DSN SQL statement copied from Query Builder. You can reference the section above on Tableau full control of TMVGate URL. The steps are fundamentally the same. Notice that the TMVGate URL is exposed (you can modify the URL based on your requirement).

From ODBC

Data source name (DSN)  
 TMVGate\_CSV

Advanced options

Connection string (non-credential properties) (optional) ⓘ  
 Example: Driv...

SQL statement (optional)  

```
SELECT * FROM $
WITH(
 Src='http://localhost:50235/api/view?APIKey=
 ,RequestTimeoutMs='60000'
 ,ColumnDelimiter='|'
)|
```

Supported row reduction clauses (optional)  
 (None) Detect

OK Cancel

- Click “OK” to save the definition. You may be prompted to input your credentials. Select Default or Custom. Click “Connect” to proceed.

ODBC driver

dsn=TMVGate\_CSV

Don't specify any credentials or only connection string properties.

Credential connection string properties (optional) ⓘ

Back Connect Cancel

- A preview of data from TMVGate will be displayed. Click 'Load' to complete the definition. You can now proceed with the report.

ODBC (dsn=TMVGate\_CSV SELECT \* FROM \$ WITH( Src='http://localhost:50235...

| actvsbud | region    | model                | account1      | month | Value       |
|----------|-----------|----------------------|---------------|-------|-------------|
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Jan   | 56.49439399 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Feb   | 58.42332872 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Mar   | 55.75057822 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Apr   | 58.50146881 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | May   | 56.60089928 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Jun   | 57.62403341 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Jul   | 55.92647415 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Aug   | 56.85279735 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Sep   | 59.02612145 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Oct   | 58.00939623 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Nov   | 59.70511375 |
| Actual   | Argentina | S Series 1.8 L Sedan | Gross Margin% | Dec   | 55.82404338 |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Jan   | 25259.93    |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Feb   | 25830.76    |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Mar   | 25041.9     |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Apr   | 25230.02    |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | May   | 25523.62    |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Jun   | 25592.79    |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Jul   | 25075.93    |
| Actual   | Argentina | S Series 1.8 L Sedan | Price         | Aug   | 25214.59    |

 The data in the preview has been truncated due to size limits.

Load Edit Cancel