

DataNAV

NAVIGATE - ANALYZE - VISUALIZE

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Welcome to the Quantrix Modeler DataNAV User Guide Supplement. This guide is written for people that are familiar with Quantrix Modeler and have a working knowledge of database functionality and structures.

DataNAV is a Quantrix Modeler plugin that allows you to Navigate Analyze and Visualize the data created from an external database.

To use DataNAV you must have Quantrix Modeler Professional Edition installed on your computer.

Introduction

Quantrix DataNAV allows you to easily import and aggregate data from a database, data warehouse or text file into your Quantrix model. The DataNAV functionality allows you to easily drag and drop database columns as dimensions or data items. DataNAV uses the power of the Database to execute aggregation queries and allows you to quickly get the results you need.



PROFESSIONAL EDITION: DataNAV can only be used with Quantrix Modeler Professional Plus Edition.

Installing & Licensing DataNAV

DataNAV is included with the Quantrix Modeler Professional Plus installation package for Windows and OS X. All Trial Users of Quantrix get access to the Professional Plus edition. A purchased Professional Plus serial number will enable the DataNAV functionality. If you need additional assistance with the Quantrix Modeler installation, you can email Quantrix support at support@quantrix.com.

Setting Maximum Memory

To aid in the performance of large model files, you can increase the memory allocation for Quantrix. We recommend that you keep the memory size under the amount of RAM installed on your system. To change the memory setting, follow these steps:

1. Choose **Tools > Options** to open the **Options** dialog box.
2. Select the **General** section of the **Options** dialog box.
3. Set the desired value in the **Maximum Memory** box.
4. Click the **OK** button to apply the option.

After you select **OK**, the system will test your new settings to ensure that the contiguous block of memory available is not exceeded. You will be prompted to lower the number if needed.



CAUTION: On Windows operating systems, setting the memory higher than the operating system configuration allows may result in Quantrix not running. Values at or below 800M are safe in most configurations, but the maximum value depends on software installed on your system. If Quantrix

fails to run after you make this change, please contact support@quantrix.com or visit the knowledge base at www.quantrix.com for further information.

Establishing a Data Source

Setting up the Database Driver

Quantrix can connect to databases using JDBC or, on Windows operating systems, ODBC. JDBC and ODBC drivers are available that can connect to all major database technologies. These drivers are available from your database vendor or third party developers. Please contact your database administrator or database software vendor for information on driver availability. See “Setting Database Options” on page 69 of the *Quantrix Modeler User Guide* for more information on adding JDBC drivers to Quantrix.



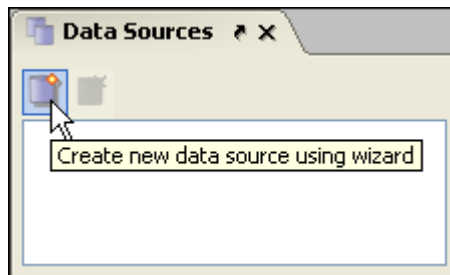
NOTE: JDBC connections generally are faster and more robust than ODBC connections when used with Quantrix.




NOTE: To use an ODBC connection, you must first have configured an ODBC Data Source on your Windows based computer. Please contact your database administrator for more information on configuring an ODBC Data Source.

Adding a Data Source

Choose **Data > DataNAV > Data Sources** or click the **Data Source** icon () in the toolbar. You will be presented with the Data Sources Panel as shown below:



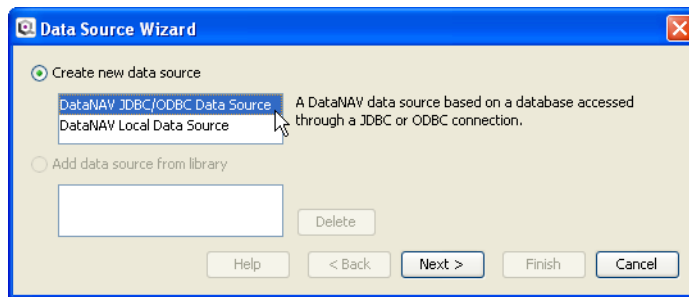
Click on the **Add Data Source** icon () to start the Data Source Wizard.



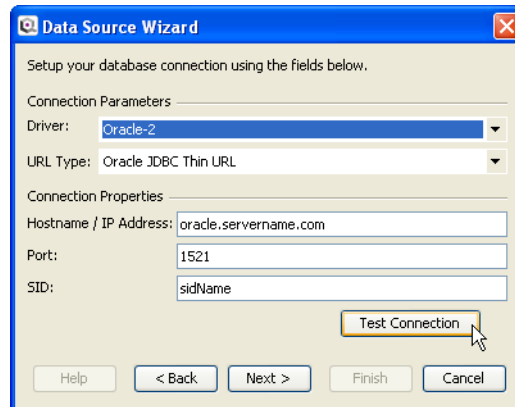
TIP: Quantrix also allows you to add an existing data source from another model via Copy (**Ctrl+C**) and Paste (**Ctrl+V**).

Adding a JDBC / ODBC Data Source

By choosing the DataNAV JDBC/ODBC Data Source option, you are establishing a direct link to the database to execute aggregation queries. You can use any existing JDBC or ODBC connection to establish the database connection.



An example connection to an Oracle database is shown below.



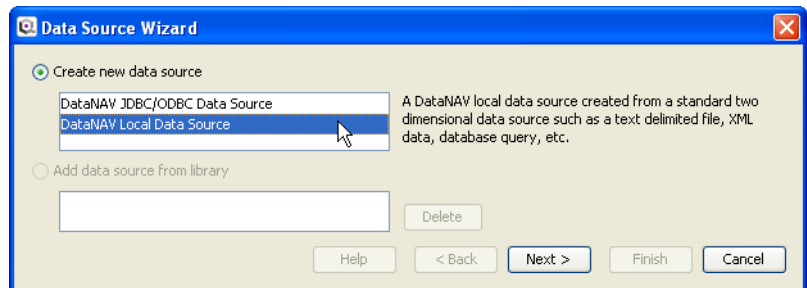
Once the connection is established, you can navigate the Oracle schemas and tables; adding tables as desired to be part of the data source.



TIP: Generally you only need to bring in a single table. Quantrix will inspect the table and if foreign key constraints are present in the database Quantrix will link the joined tables automatically. If foreign key constraints are not present you can manually establish the joins. See “Add Join Table” on page 27 for more details.

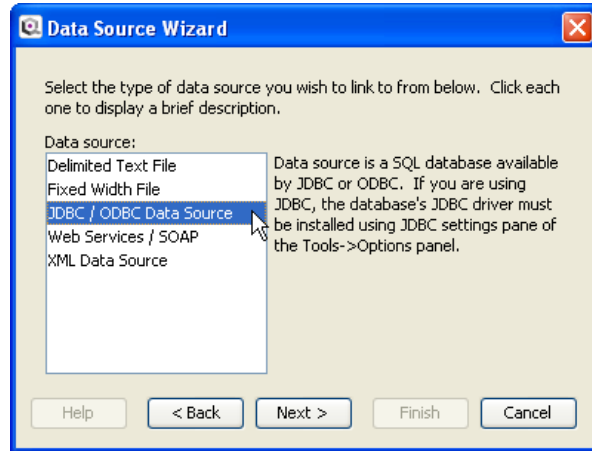
Click **Next >** to proceed to the Naming table panel. See “Name New Data Source” on page 19 for more information.

Adding a Local Data Source



To connect to a text or csv file, use the local data source option. All connections import data into a Quantrix “column store” database for SQL queries. This option allows you to bring in information from databases to be made available for ‘off line’ use where a live connection to the data source would not be required. To add a local data source, follow these steps:

1. Choose the data source type based upon the location and type of data you would like to import. You may view a description of each type by clicking once on the labels in the **Data source:** list in the **Data Source Wizard** window. Select the data source type to configure by highlighting the desired type from the list in the **Data Source Wizard** window and clicking **Next >**.



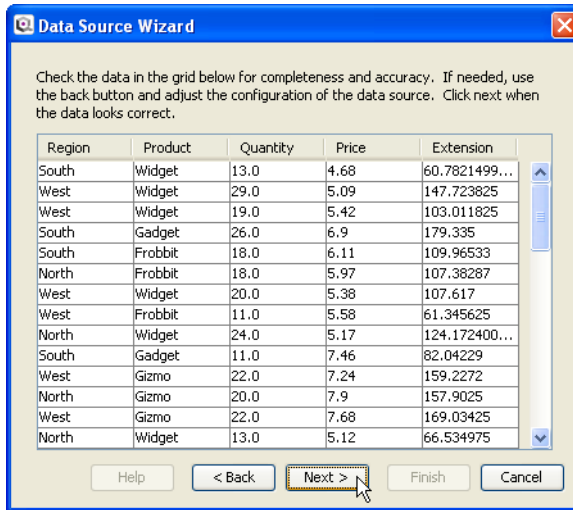
You have 5 options to choose from:

- Delimited Text File
- Fixed Width File
- JDBC / ODBC Data Source
- Web Services / SOAP
- XML Data Source

After establishing a connection to a data source, you will use the **Data Source Wizard** to setup the parameters of the query and verify the data being brought into Quantrix.

2. Configure the **Data Source:** See “Configuring Data Sources” on page 8 for a more detailed description of each destination type.
3. Once you have configured the data source, the **Data Source Wizard** will display the grid of data coming from the data source.

Figure a-1. Data Preview Screen of Data Source Wizard



4. Confirm that the data looks like you expect it to, and click **Next >** to proceed to the name table panel. See “Name New Data Source” on page 19 for more information.



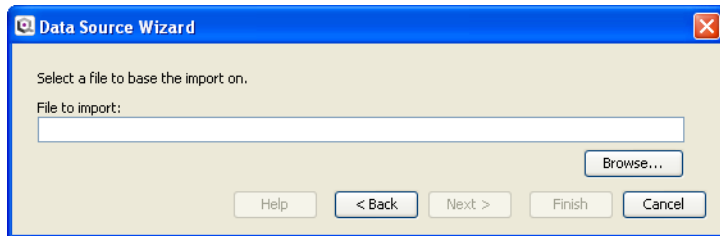
TIP: In addition to creating a new data source, Quantrix allows you to add from a previously created library of data sources. For more information see “Using the Data Source Library” on page 33.

Configuring Data Sources

Using Delimited Text Files / CSV

If you selected to import your data from a *Delimited Text File* the Data Source Wizard will look like what is shown in Figure a-2.

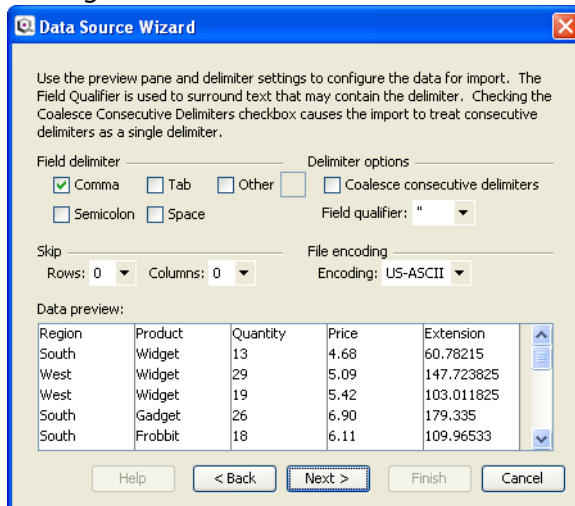
Figure a-2. Selecting Text File to Import in Data Source Wizard



Follow these steps to configure this data source:

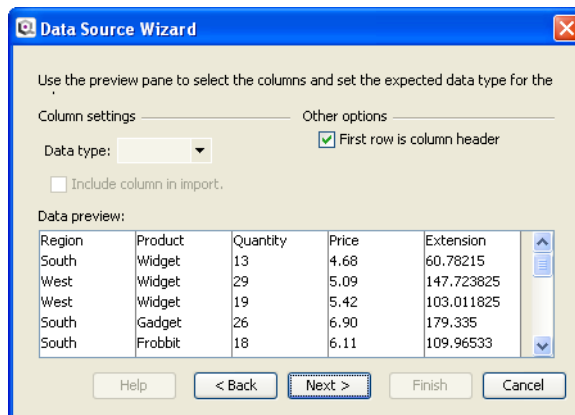
1. Select the delimited text file (.csv or .txt) by one of the following methods:
 - Click **Browse...** and use the standard file browser to locate and select the desired file.
 - Type the full path to the desired file.
2. Once a valid file is selected, click **Next >** to get to a screen shown in Figure a-3

Figure a-3. Setting Text File Delimiters in Data Source Wizard



3. If necessary, change the **Field delimiter** setting to match your file's field delimiter by placing a check in the appropriate delimiter's checkbox. The **Data preview** grid will update to reflect your changes as you make them.
4. Set the Delimiter options:
 - **Coalesce consecutive delimiters**, if checked, will cause multiple delimiter characters in a row to be treated as one. This can sometimes be used to import fixed-field-width text files.
 - **Field qualifier** is the character that surrounds fields which could contain delimiter characters.
5. Optionally specify a number of rows or columns to skip in the import file using the **Skip** drop-down menus.
6. The **File encoding** option allows you to choose either US-ASCII encoding or one of three UTF encoding options that enable Asian character readability.
7. When you are satisfied with these settings, click **Next >** to get to a screen like shown in Figure a-4.

Figure a-4. Setting Data Types in Data Source Wizard



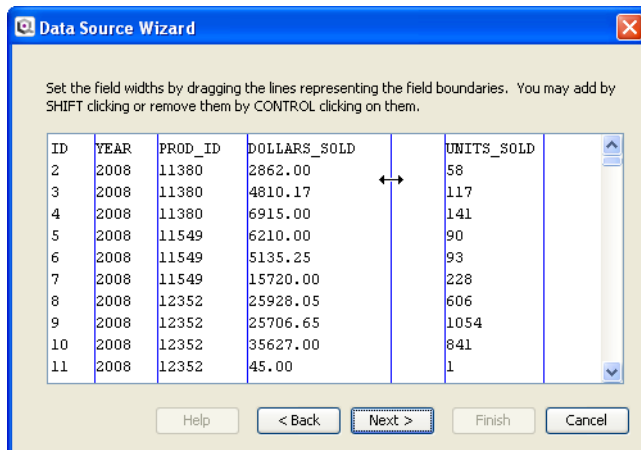
8. Confirm the data-type for each imported column by clicking on each column in the **Data preview** grid and checking the **Data type** and **Include column in import** settings fields. Change these settings if necessary.
9. Select **First row is column header** if the first row in the data file is a header for the columns.
10. Click **Next >**, and continue with Step 3 on page 6 to complete the data source setup.

Using Fixed Width Files

If you selected to import your data from a *Fixed Width File* (Step 1 on page 6) in the Data Source Wizard, follow these steps to configure this data source:

1. Select the fixed width file by one of the following methods:
 - Click **Browse...** and use the standard file browser to locate and select the desired file.
 - Type the full path to the desired file.
2. Once a valid file is selected, click **Next >** to see the screen shown in Figure a-5.

Figure a-5. Setting Fixed Width File Columns in Data Source Wizard

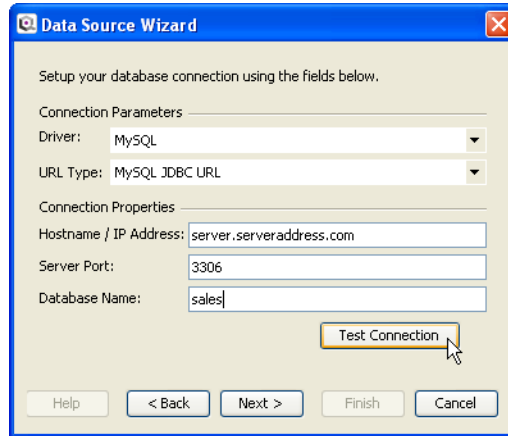


3. Adjust the blue lines until you are satisfied with the column layout.
 - To move a line, click and drag.
 - To add a line, hold **Shift** and click the desired location.
 - To delete a line, hold **Ctrl** and click on the line to be removed.
4. Click **Next >** and proceed with Step 3 on page 9.

Using SQL Databases

If you selected to import your data from a *JDBC / ODBC Data Source* (Step 1 on page 6) the Data Source Wizard will look like what is shown in Figure a-6.

Figure a-6. JDBC Connection Setup for Data Source Wizard



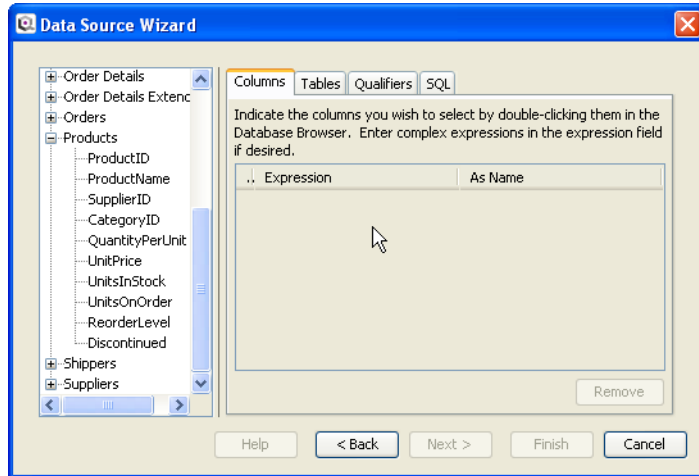
Follow these steps to configure the data source:

1. Select the Driver from the drop-down menu of available drivers.
2. Once a driver is selected, the Data Source Wizard window shows parameters for that driver if Quantrix recognizes the driver. If Quantrix does not recognize the driver, you will be prompted to enter the JDBC URL for that driver. See the driver documentation for details on the URL format for your driver.
3. Optionally test the connection by clicking **Test Connection**. You will be prompted for the username / password to associate with this connection.
4. Click **Next >** to continue. If you did not test the database connection, you will now be prompted to enter the username / password for the database connection.



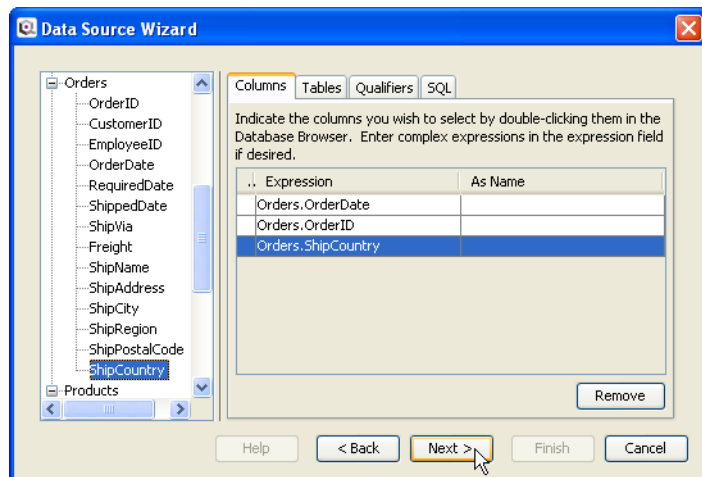
NOTE: If you place a check in the **Save password** checkbox, Quantrix will save the password for this database connection on your machine. The password will not be in the model file and you will have the ability to edit the username and password for future connections.

5. If the database connection is successful, you will see a screen that looks like what is shown in Figure a-7.

Figure a-7. Columns Tab of Data Source Wizard


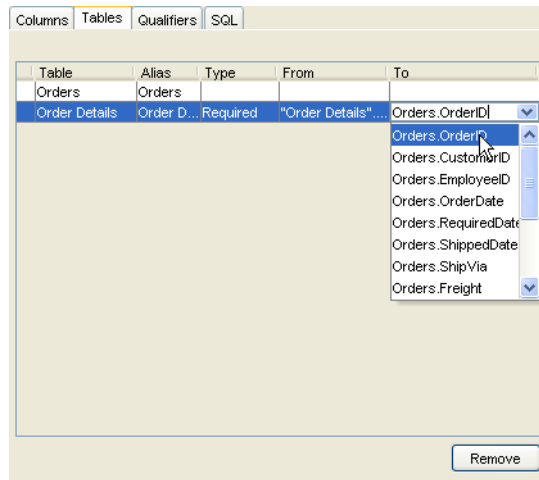
On the left of the Wizard is a list of the tables available in the database. Click the plus icon (⊕) to the left of the table name to display the table's available columns.

6. Add columns to your query by double-clicking the column names in the list at the left of the window. The columns will show up in the right-hand side. Quantrix may ask you to help it decide how to link the tables if it cannot detect the linkage (join) automatically.

Figure a-8. Selecting Columns to Import in Data Source Wizard


7. If necessary, you can manually edit the table joins on the Tables tab of the Data Source Wizard window as shown in Figure a-9.

Figure a-9. Setting Table Joins in Data Source Wizard



Using the Tables tab you can change the table joins in the following ways:

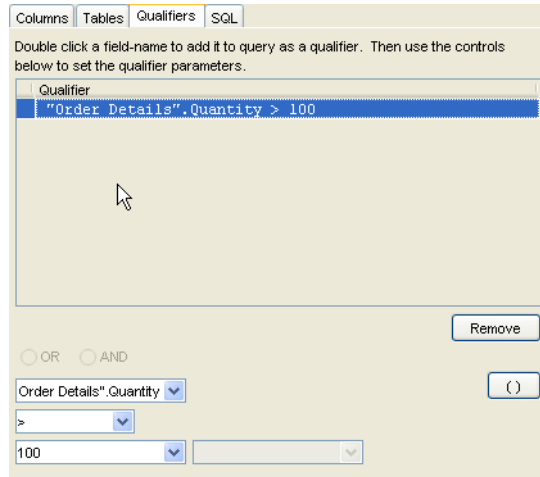
- **Alias** - this is the name used elsewhere in the query to refer to the table. Changing the Alias will automatically update the other references to this table.
- **Type** - this specifies whether a corresponding row in the table needs to be present for the query to return it. This setting allows for inner joins, shown as required (default), and left outer joins shown as optional.
- **From** - this is the column in the table being used to link or join to the To column in another table.
- **To** - this is the column in another table in the query which is used to compare with the From column to establish the join.



NOTE: You can establish more sophisticated joins using the **SQL** tab. See “Using SQL Expert Mode” on page 14 for more information on using the **SQL** tab.

8. If desired, you can add a qualifier to your query to filter only the rows you would like to analyze using the Qualifiers tab as shown in Figure a-10.

Figure a-10. Setting Qualifiers in Data Source Wizard



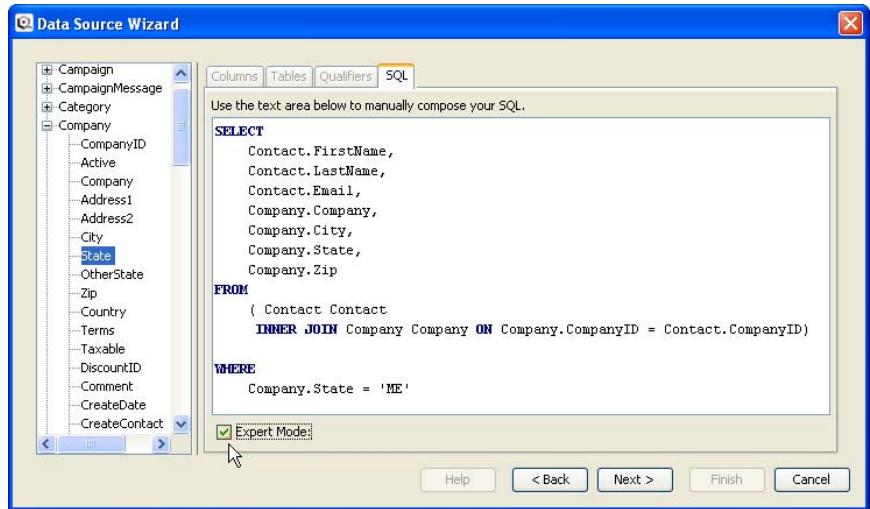
To add a qualifier, double-click on the column in the list on the left of the Data Source Wizard window to add a column qualifier to the qualifier tab. You can then set the logic of the qualifier using the drop-down menus and fields in the lower left corner of the Qualifiers tab.

9. To see the resulting SQL at any time during the process of building your query, you can click on the **SQL** tab.
10. When you are satisfied with the query, click **Next >** and continue with Step 3 on page 6 to complete the data source setup.

Using SQL Expert Mode

The query builder in the Data Source Wizard can help you construct simple queries with straightforward qualifiers and joins. If you need to execute more complex queries or if you prefer to enter your SQL manually, you can click the **SQL** tab. This will present you with a SQL editor that will allow you to type your SQL in manually as shown in Figure a-11.

Figure a-11. Using SQL Expert Mode in Data Source Wizard



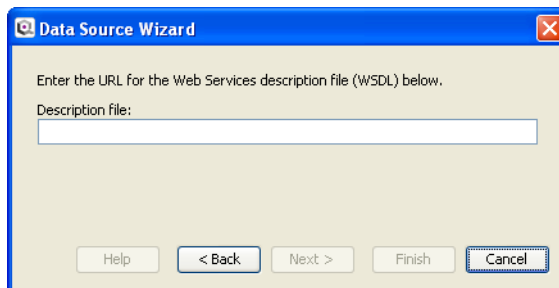
TIP: If you have existing SQL that you would like to use within Quantrix, you can use the clipboard to paste it directly into the **SQL** tab of the Data Source Wizard.

You can use expressions in your SQL statement to point to cells in your model to set dynamic variables in the SQL command. While in SQL expert mode, use the curly braces {} to surround your expression statement. To learn more about expressions, see “Expression Concepts” on page 200 of the *Quantrix Modeler User Guide*.

Using Web Services / SOAP

If you selected to import your data from a *Web Services / SOAP* (Step 1 on page 6) the Data Source Wizard will look like what is shown in Figure a-12.

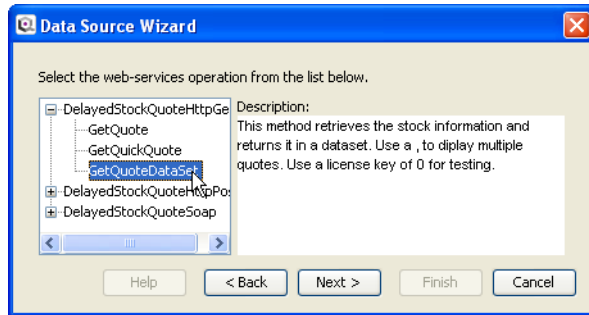
Figure a-12. Opening Web Services Screen of Data Source Wizard



Follow these steps to configure the Web Services / SOAP Data Source:

1. Enter the URL for the Web Services Description file (WSDL).
2. Click **Next >** to continue to this screen shown in Figure a-13.

Figure a-13. Selecting Web Services Operation in Data Source Wizard




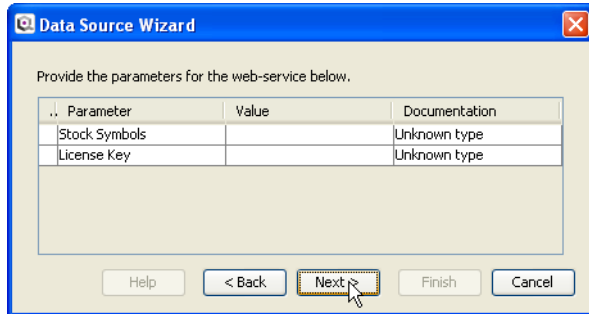
3. Use the plus icons () in the tree at the left to expose the available services. Select the service you would like to invoke by clicking on the label.
4. Click **Next >** to continue to a screen shown in Figure a-14.

Figure a-14. Select Web Services Parameters in Data Source Wizard

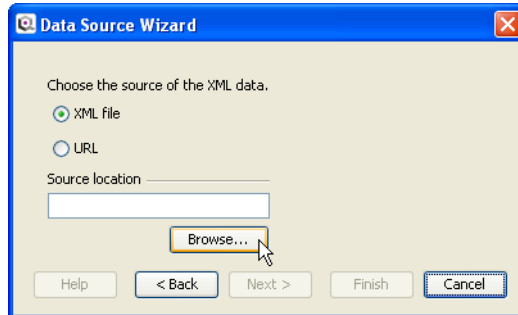


5. The Data Source Wizard will list the parameters of the Web Services call you are invoking. Fill these in with the relevant values to configure the Web Services invocation.
6. Continue from Step 3 on page 17 to configure the XML fields you would like to import.

Using XML Files

If you selected to import your data from an *XML Data Source* (Step 1 on page 6) the Data Source Wizard will look like what is shown in Figure a-15.

Figure a-15. Opening XML Screen of Data Source Wizard

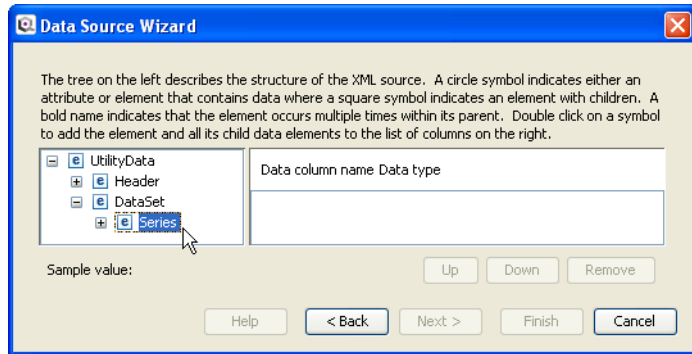


Follow these steps to configure the XML Data Source:

1. Use the radio buttons to select the source of the XML data.
 - **XML file** - the file is located on a file system available on your computer.
 - **URL** - the file is accessible via HTTP or FTP on the Internet.
2. Enter the url or file path into the **Source location** field. If you selected XML file, you can click the **Browse...** button to use the file browser to locate the xml data file.
3. Click **Next >** to get to a screen like what is shown in Figure a-16.

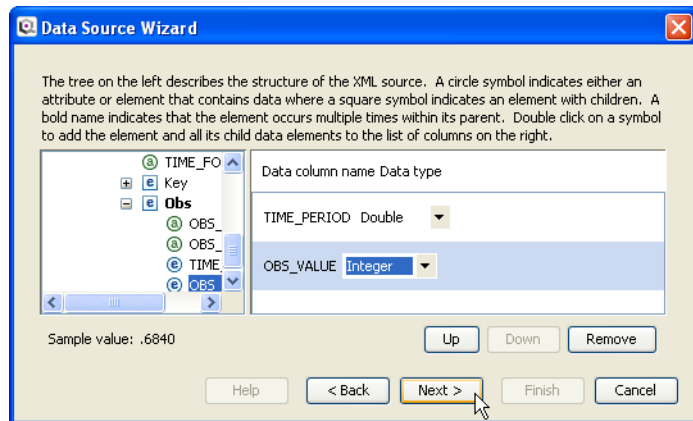
The tree on the left represents the structure of the XML document. You can navigate the structure by clicking the plus icons (⊕) to open elements and expose their children. The list on the right indicates which fields from the XML you will be importing.

Figure a-16. Navigating XML Source with the Data Source Wizard



4. Double-click on the elements or fields you wish to import. They will show up in the right pane.
5. Set the data type for each field using the drop-down menu in the **Data type** column.

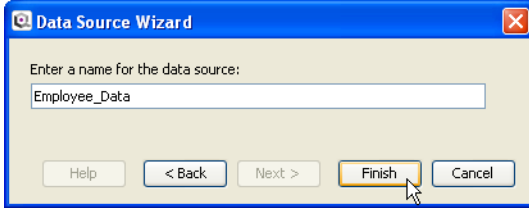
Figure a-17. Selecting XML Source Data with Data Source Wizard



6. Click **Next >** and continue with Step 3 on page 6 to complete the data source setup.

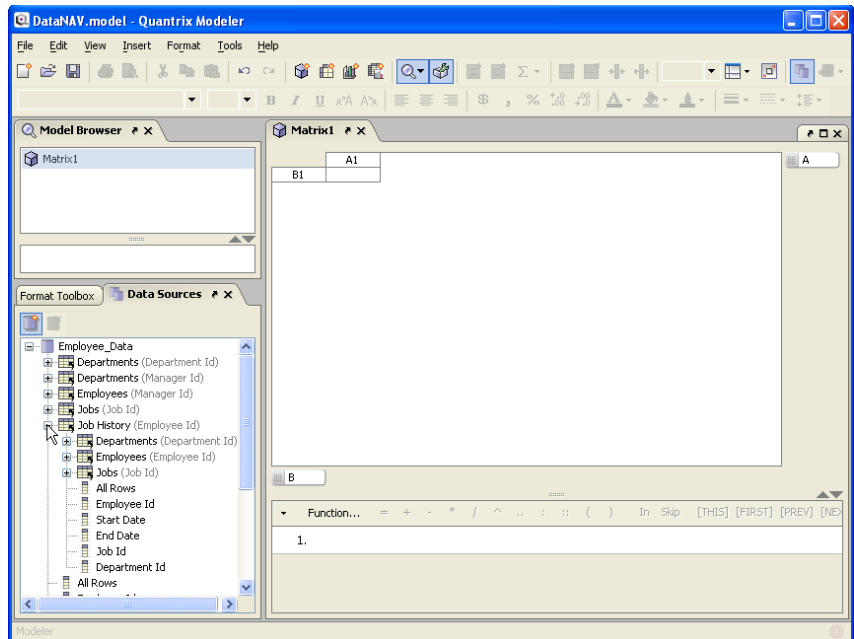
Name New Data Source

Once the data source connection is established you will create a name for the new data source. Click **Finish** to proceed to use the data source in an aggregation query.



When finished, the table you specified is made available for Quantrix aggregation queries. Quantrix will inspect the table and if foreign key constraints are present in the database Quantrix will link the joined tables automatically. If foreign key constraints are not present you can manually establish the joins. See “Add Join Table” on page 27 for more details.

Click on the plus icon (⊕) next to the data source name to review the columns and linked tables for the data source.



Using DataNAV

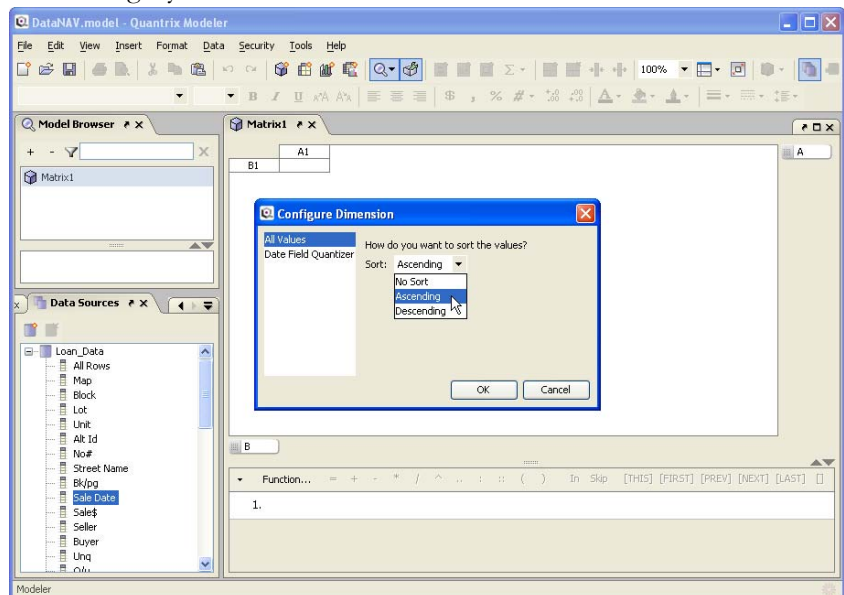
Once a data source is created, you can use it to create categories and data items in matrices.

Create Categories

To create an aggregated category, drag the category tile icon from the column to a category tray in the desired matrix. With each column in the database, you can create one or more of these three different types of categories. If desired, during configuration you can choose to sort the category values.

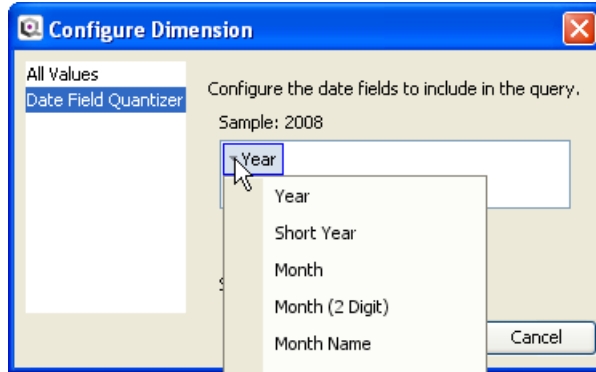
The type is pre-determined by the database. If more than one option is available, you will be able to choose in the **Configure Dimension** dialog box as shown below.

- **All Values** - Each unique value in the column will become an item in the category.
- **Bin Quantizer** - The unique values in a category can be binned into ranges.
- **Date Field Quantizer** - Each unique date in the column can be aggregated into separate year, month or day dimensions. Additionally, date formats can be applied for different date displays in the category.



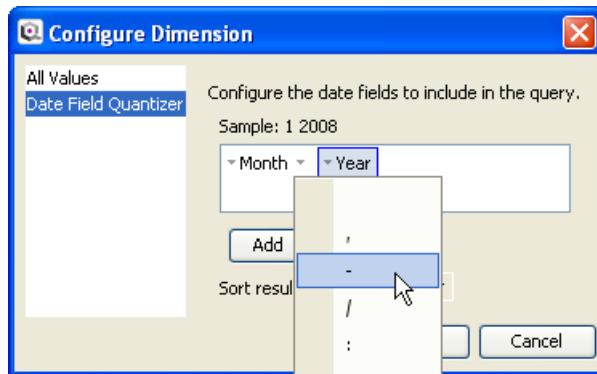
To apply a date format, follow these steps:

1. Drag the Date category tile to the desired matrix.
2. In the **Configure Dimension** dialog box, choose the appropriate date components from eleven options available in the drop-down menu as shown below.



To include additional fields, click the **Add** button. You may also choose to display a field separator by clicking on the drop-down menu that appears between the two date fields. Choose from the six available options as shown.

3. Press **OK** to complete the date field formatting.



TIP: To view the source of a Category or Data Item, hover the cursor over the item name. A tooltip displaying the Data Source, Table, Field and summarization method, when used, will be shown.

Linked DataNAV Categories

When two matrices need access to the same DataNAV category, you can link the category (and all of its items) across the matrices just as you would any other model category. For more information on linked categories, see “Using Linked Categories” on page 125 of the *Quantrix Modeler User Guide*.



CAUTION: In DataNAV, linked categories share any DataNAV Qualifier restrictions placed on the category in the originating matrix. For more information on DataNAV Qualifiers, see “Applying Qualifiers” on page 23.

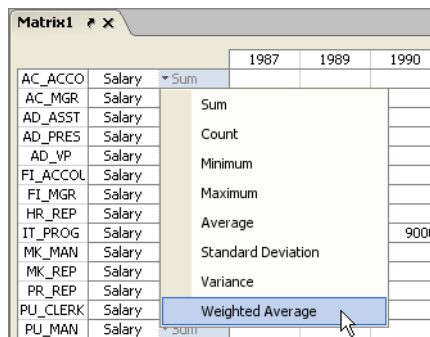
Create Data Item

Each column in the data source can be an aggregated *Data Item*. While some databases may have expanded statistical functions available, most databases will have these standard types of data items:

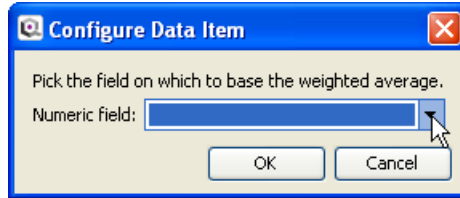
- Count
- Minimum
- Maximum
- Sum
- Average
- Variance
- Weighted Average

To create a weighted average item, follow these steps:

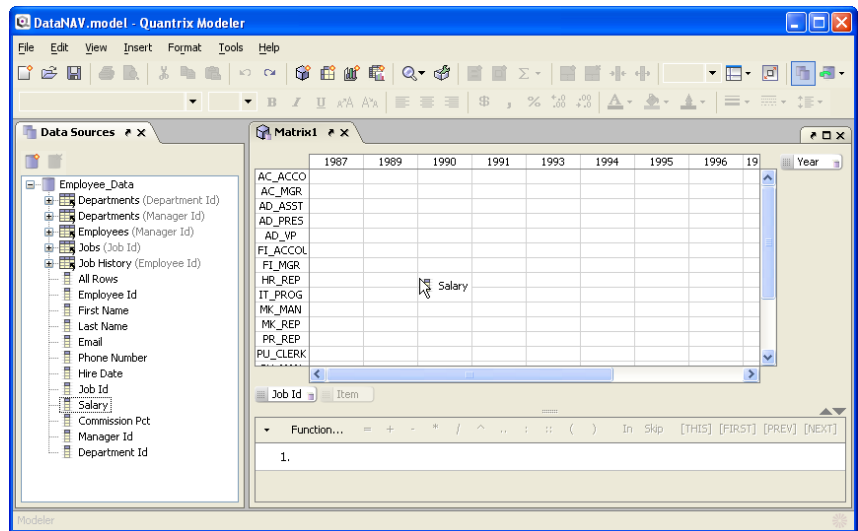
1. Drag the data item to the table of the desired matrix.
2. Select the Weighted Average option from the drop-down menu as shown.



- In the **Configure Data Item** dialog box, choose the numeric field on which to base the weighted average as shown below. All numeric fields available appear in the drop-down menu.

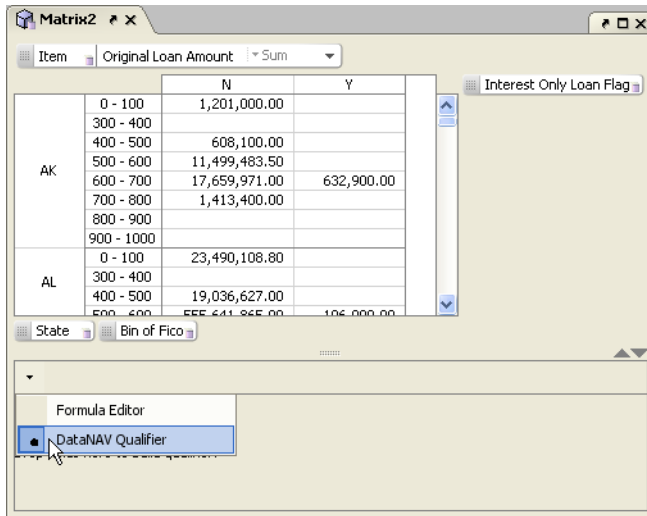


Categories and data items can be placed into matrices, table views, chart views and views on a presentation canvas. Simply click on the appropriate data item and drag it into the table of the matrix as shown below

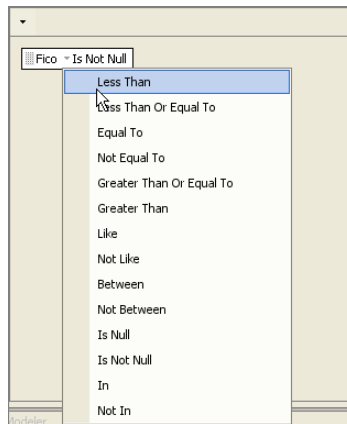


Applying Qualifiers

Any column can be used as a qualifier for the aggregation query. To create a qualifier, first click the drop-down arrow in the formula pane and switch to **DataNAV Qualifier** mode.

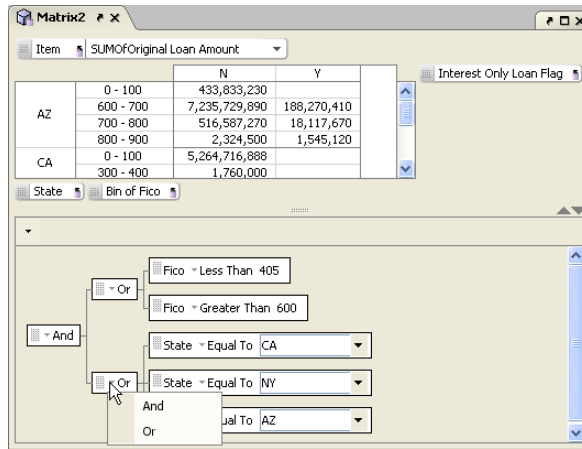


Then simply drag a column point (category or data item) into the qualifier area of the matrix window and set the qualifier parameter.



TIP: To increase processing speed while applying qualifiers, turn off the Auto Refresh feature by choosing **Data > DataNAV > Auto Refresh**. This will prevent Quantrix from querying the database with each qualifier edit. Click the Update Data icon (🔄) in the toolbar to refresh manually.

You can create multiple qualifiers and join them with AND / OR statements.



Building qualifiers is essentially creating the WHERE conditions of the SQL query being passed to the database for processing.

To duplicate queries for multiple matrices, select the entire qualifier and drag to the desired matrix.

Remove Matrix DataNAV Links

Matrices containing data from a DataNAV source will display a DataNAV link icon (🔗) on the matrix in the Model Browser and Matrix Title Bar.

Once the matrix is populated with the data, you may want to remove the link to keep the data static. To remove the DataNAV link, follow these steps:

- Highlight the appropriate matrix in the Model Browser
- Choose **Data > DataNAV > Remove Matrix DataNAV Links**

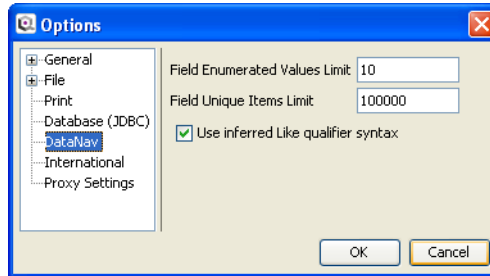


CAUTION: Removing matrix DataNAV links will also remove any DataNAV Qualifiers that have been established in the DataNAV Qualifier pane.

Setting General DataNAV Options

You can apply some DataNAV options to all of your Quantrix files using the **Options** dialog box. To open it, choose **Tools > Options**.

Figure a-18. The Options dialog box



There are three options related to DataNAV files. To change the default settings, follow these steps:

1. Choose **Tools > Options** to open the **Options** dialog box
2. Click on the **DataNAV** section of the **Options** dialog box
3. Change the following options as desired:
 - **Field Enumerated Values Limit** - sets the maximum number of items to appear in the DataNAV qualifier drop-down list
 - **Field Unique Items Limit** - sets the maximum number of items that will be created in a DataNAV category
 - **Use inferred Like qualifier syntax** - when selected, Quantrix will imply the SQL '%' in all **Like** queries
4. Click the **OK** button to apply the options

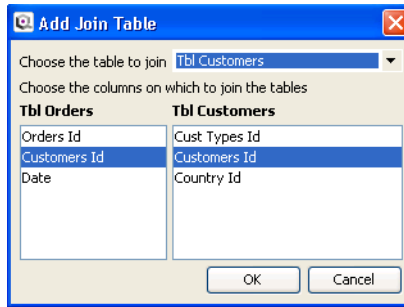
Modifying DataNAV Data Sources

Add Join Table

Some databases and other data sources do not broadcast which tables are related to each other. With Quantrix, you can establish the joins between tables manually through the data source panel.

To establish joins between tables do the following:

- Right-click on the data source name and choose **Add Join Table...**
- From the **Add Join Table** panel, choose the table you want to link to and the common column in each table that establishes the link



NOTE: The **Add Join Table** option is only available when using a DataNAV JDBC / ODBC Data Source.

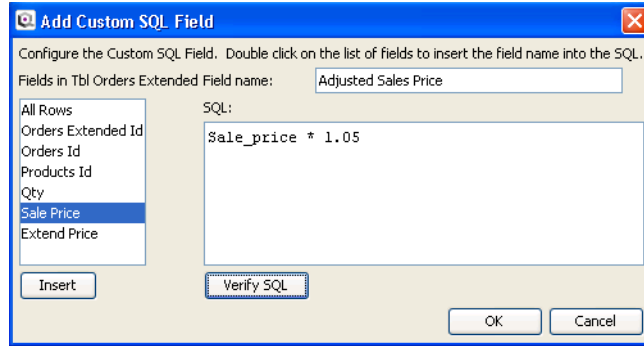
Add Custom Fields

You can add a virtual column in a data source. An example would be to take two columns and perform a mathematical operation (average, multiply, addition). Doing this allows you to use the database as the processing engine for the column and then use the results in a matrix using the aggregated data source.

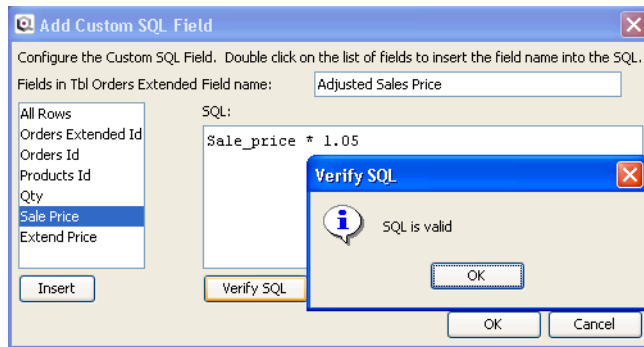
To establish a custom field do the following:

- Right-click on the data source name and choose **Add Custom Field...**

- In the **Add Custom SQL Field** panel, enter the name of the new field in the Field Name box and then write the SQL statement for the new virtual column.



- .Select **Verify SQL** to check the validity of the SQL statement.



TIP: Use a different formatting style, all capital letters for example, to differentiate custom fields from the fields that are part of the data source.



NOTE: The **Add Custom SQL Field** option is only available when using a DataNAV JDBC / ODBC Data Source.



TIP: When configuring a DataNAV, any missing or invalid names are signified by a red X warning (⊗).

Remove Data Source

Remove a data source from the model in one of these ways:

- Right-click on the data source name and choose **Remove**
- Click on the **Remove Data Source** icon (🗑️)

Create a Two Dimensional Query

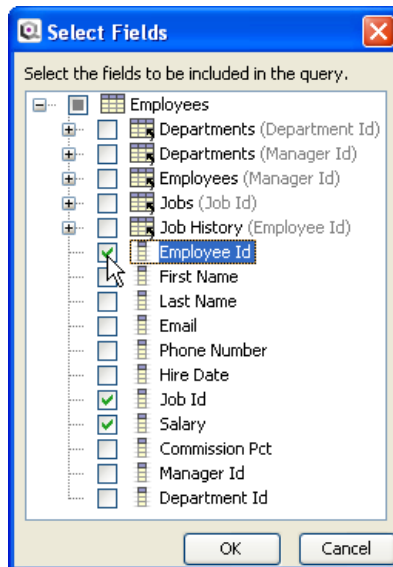
With Quantrix DataNAV you can create a *Two Dimensional Query* from any of your model data sources. Items in a Two Dimensional Query are not data items and no summarization methods will be applied. See “Create Data Item” on page 22 for more information about data items.

You can apply DataNAV Qualifiers to a Two Dimensional Query as you would in any other matrix. See “Applying Qualifiers” on page 23 for more information.

You create a Two Dimensional Query in one of the following ways:

1. Using the **All Rows** column:
 - In a new matrix, drag the **All Rows** column from the appropriate data source or linked table to any category tray
 - Drag all desired columns to the table of the matrix
2. Using **Two Dimensional Query**:
 - Right-click on the appropriate data source or linked table
 - Select **Two Dimensional Query** from the pop-up menu
 - Select the columns to include in the query from the Select Fields dialog box as shown in Figure a-19
 - A new matrix is created from your choices

Figure a-19. Create a Two Dimensional Query



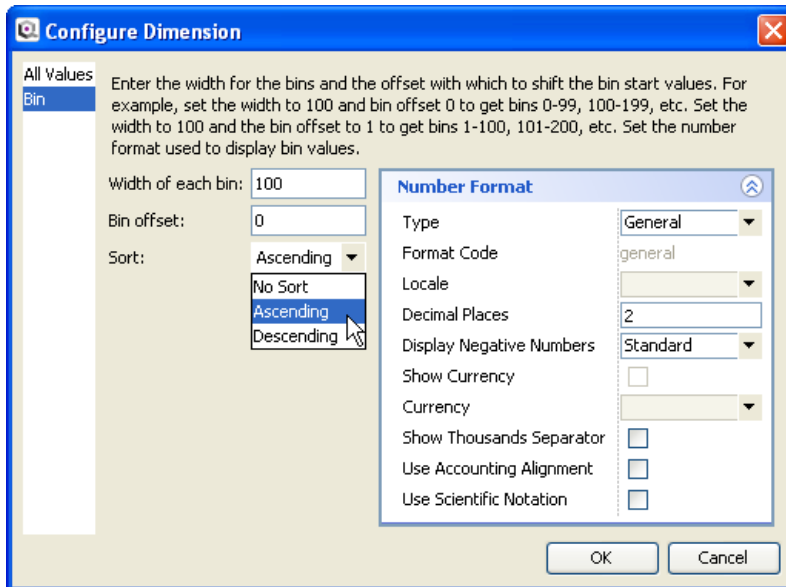
Updating DataNAV Queries

Modifying DataNAV Categories

You can modify categories created by DataNAV to adjust the bin settings, auto-summarize or update the items. To modify DataNAV categories do the following:

- Right-click on the Category Tile of the DataNAV item and choose **DataNAV** from the pop-up menu. Then choose one of the following menu items:
- **Configure Dimensions** - If the category was originally created as a date or bin, clicking Configure Dimension shows the panel that allows you to adjust the date or bin settings.

As shown in the bin configuration below, you can set the start and width of the bin as well as apply a number format. Clicking **OK** will reset the bins with the new information entered in the panel.



- **Auto Summarize** - This option adds a new summary item to the category and executes a SQL query to the data source for the summarized results of the dimension.
- **Update Items** - Updates the category items with any new information from the data source.

Adding and Modifying Items Manually in DataNAV Categories

Renaming Items

Items in DataNAV categories can be renamed as desired. The new name will remain when DataNAV queries are updated.

Adding and Deleting Items

New items can be added to DataNAV categories and can be used in the normal modeling process. You can add a new item to a category just as you would in any regular category. Simply click on an item and press the **ENTER** key or choose **Insert > Add Item** from the menu.


Items can also be deleted from DataNAV categories. It is important to know that deletion of items created by a DataNAV category will return with the next data source update.

To permanently remove an aggregated item from a category, use a qualifier. For more information see “Applying Qualifiers” on page 23.

Auto Refresh DataNAV Queries

Deletion and additions of categories and items in a matrix can automatically refresh the DataNAV query. To turn this setting on or off, choose **Data > DataNAV > Auto Refresh**

Update Data

Aggregated queries in a matrix that is not refreshed automatically can be refreshed by choosing **Data > DataNAV > Update Data**. You can also click the Update Data icon () in the toolbar to refresh the matrix data.

Update All

All the aggregated queries in a model that are not refreshed automatically can be refreshed by choosing **Data > DataNAV > Update All**.

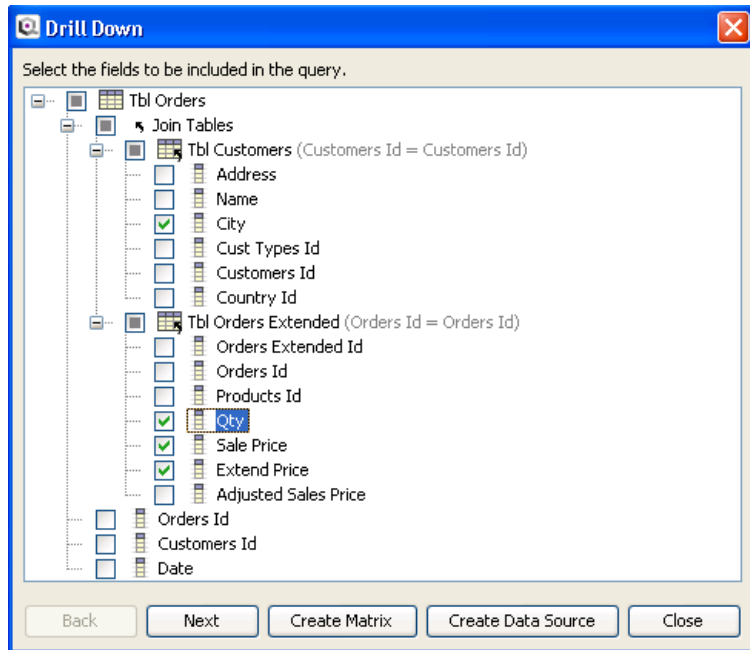
DataNAV Drill Down

Once you have created a DataNAV query that contains summarized data, you can *drill down* to see a list of the transactions that make up the data in an individual cell.

To see the data detail, right-click on the summarized DataNAV item and choose **Drill Down** from the menu.

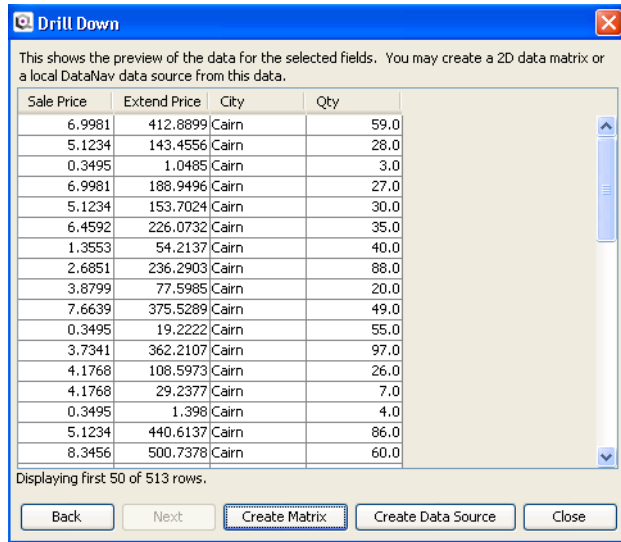
A list of columns that make up the DataNAV summarized values will be displayed. Choose the columns in the DataNAV **Drill Down** results window that you would like to use to create a new query.

Figure a-20. Create DataNAV Drill Down Query



The results of the Drill Down will be displayed as shown in Figure a-21 on page 33.

Figure a-21. DataNAV Drill Down Results



Select one of the options from the bottom of the DataNAV Drill Down results window to use the data in the following ways:


- **Create Matrix** - creates a new two dimensional matrix with the results of the query
- **Create Data Source** - use the query results as a new data source for the current model

Using the Data Source Library

Each DataNAV Data Source exists with the model in which it was created. This enables the data source to be available when the model is shared. Quantrix allows you to create a static copy of a model data source that can be used in other models by adding it to a library of data sources.

Add to the Library

To save a static copy of a data source, making it available for other models, follow these steps:


1. Open the Data Sources panel by clicking on the **Data Source** icon () in the toolbar.
2. Right-click on the data source to be saved and select **Add Source to Library**.

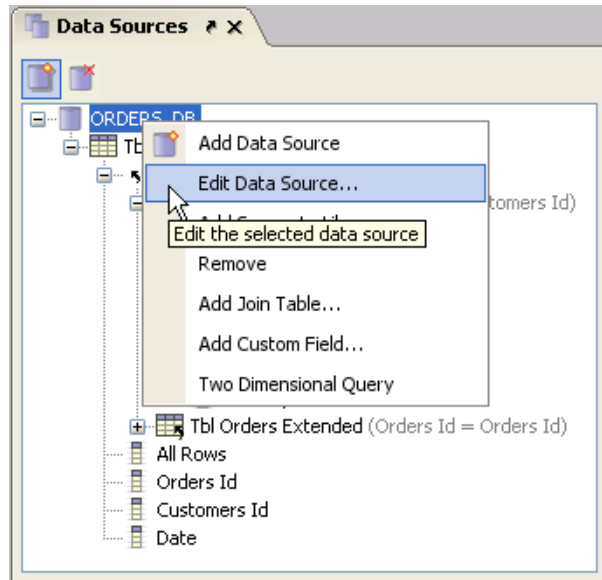


NOTE: This is a static copy and will not be updated with changes to the original data file. To import the most current data file, see “Editing a Data Source” on page 34.

Editing a Data Source

To edit an existing data source, follow these steps:

1. Open the Data Sources panel by clicking on the **Data Source** icon  in the toolbar.
2. Right-click on the data source to be edited and select **Edit Data Source...**



This opens the Data Source Wizard allowing you to make adjustments to all of the original settings. For more detailed instructions see “Adding a JDBC / ODBC Data Source” on page 4 or “Adding a Local Data Source” on page 5.



TIP: To save the edited data source as a new data source, enter a new name in the Data Source Wizard when prompted.

Deleting a Library Data Source

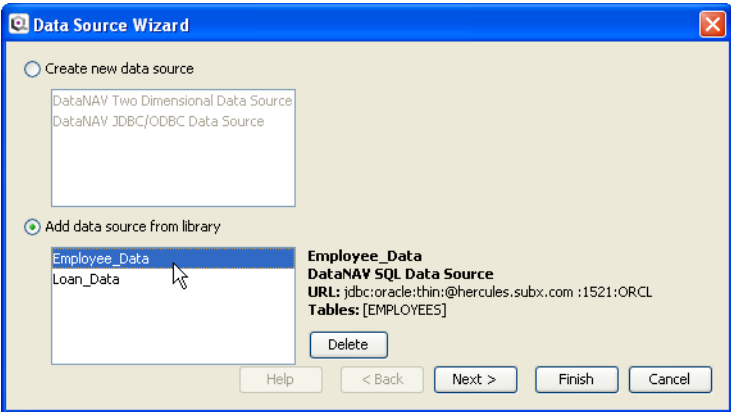
To delete a data source from the library, follow these steps:

1. Open the Add Data Source Wizard in one of these ways:
 - Click on the **Add Data Source** icon (🔍).
 - Right-click on an existing data source and select **Add Data Source** from the pop-up menu.
2. Choose the data source to be deleted from the **Add data source from library** list.
3. Click **Delete**.

The data source is removed from the library but remains active in any saved models that use this data source.

Using a Library Data Source

To use a Data Source from your DataNAV library, click on the **Add Data Source** icon (🔍) or right-click on an existing Data Source and choose **Add Data Source** to start the Data Source Wizard.



When you select a Data Source from the **Add data source from library** option, you will see the details of the original Data Source setup. Select **Next >** to proceed through the steps of setting up a database connection as described in “Adding a JDBC / ODBC Data Source” on page 4 and “Adding a Local Data Source” on page 5. This process allows you to make changes to the original parameters.



TIP: To add a Library Data Source as a new Data Source without any changes, double-click on the Data Source name.



NOTE: Any changes made during this setup process will not be saved to the library unless you add it to the library as a new Data Source. See “Add to the Library” on page 33 for more information.

DataNAV Permissions

Permissions

Quantrix allows you to grant specific permissions related to DataNAV to each role to control how the model is used by others.

The following tables provide details on the additional settings at each level. For information on creating roles and all of the permissions available in Quantrix Modeler, see “Protecting a Model” on page 358 of the *Quantrix Modeler User Guide*.

Edit Structure Settings

These role specific settings for DataNAV apply to the currently active model.

Setting:	Description:
Modify Data Sources	Allows editing of established DataNAV Sources
Modify DataNAV Query	Allows editing of established DataNAV queries in all or selected matrices
Update	Allows updating of established DataNAV links in all or selected matrices

Allow Interaction Settings

These role specific settings for DataNAV apply to the currently active model.

Setting:	Description:
Open Data Source Browser	Allows interaction with the Data Source Browser