

# QlikTech QlikView 11 with IQ 15.4, Report 377, April 2012

This report describes the certification of QlikTech QlikView Personal Edition Version 11.0 with IQ version 15.4 using ODBC connectivity.

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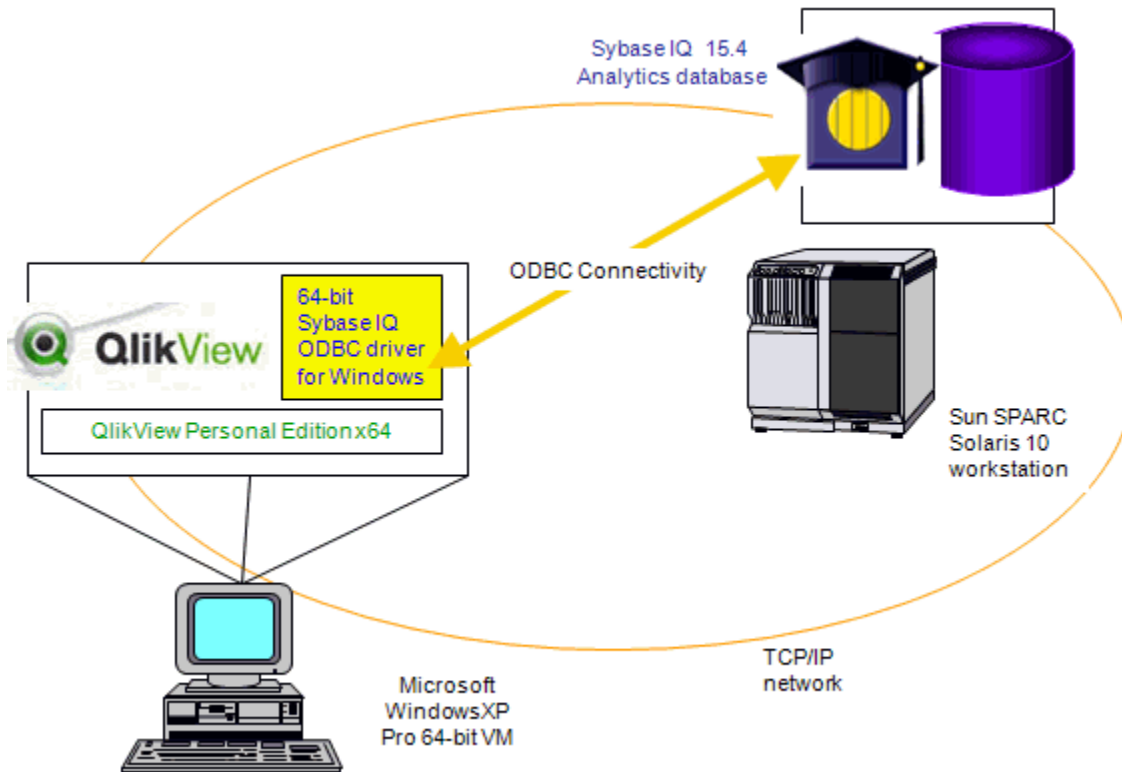
## Overview

This section describes each of the products tested and how they were used during testing. Only the platforms and products tested are reflected in this certification, but other possible combinations of these products and platforms may be used. For more information about Sybase products, including known issues not encountered during this certification or those occurring on other platforms, see the Release Bulletin for the specific product, platform and version. For more information about any of the products, please refer to the product literature manufacturer website.

- **QlikView x64 Personal Edition 11.00, 64-bit** (hereafter called "QlikView") is an interactive reporting environment in which users can query data dynamically by making selections from available objects in an interface called a "document." Data are retrieved from a source, in this case Sybase IQ, and then loaded into an in-memory database for use in the documents. The in-memory database is a snapshot of the data at the time an underlying script in the document is executed. Data are refreshed in a process called "reloading" that runs the script again. QlikView was installed and run on a 64-bit Microsoft Windows XP Professional machine.
- **Sybase IQ version 15.4** (hereafter called "Sybase IQ Server" or "Sybase IQ") is the Sybase database optimized for high speed reporting and analytics implementations. In the test environment, it served as an ODBC data source for QlikView documents. The Sybase IQ tested was a 64-bit application installed on a 64-bit Sun SPARC Solaris workstation.
- **Sybase IQ ODBC driver version 12.0** (hereafter called the "Sybase IQ ODBC driver") enabled ODBC connectivity between QlikView and the Sybase IQ Server. The Sybase IQ ODBC driver tested was a 64-bit driver installed on the same Microsoft Windows XP machine with QlikView. The driver was installed with the 64-bit Sybase IQ 15.4 Database Database Client for Windows x64.

\*Click [here](#) for for Sybase trademark and registration information.

The following diagram illustrates the test environment. For detailed information about the environment, see the section [Test Environment](#) later in this report.



## Tests Performed

This section contains a detailed explanation of the tests performed.

- Installed and configured Sybase IQ on a Sun SPARC workstation as described in the following section, [Setup and Configuration](#).
- Installed and configured QlikView on Microsoft Windows XP machine as described in the following section.
- Installed and configured the Sybase IQ database client, which includes the Sybase IQ ODBC driver, on the same machine with QlikView as described in the following section.
- Used the 64-bit ODBC Administrator on the QlikView machine to select the Sybase IQ ODBC driver and create an ODBC data source (DSN) for the remote Sybase IQ server. Information about configuring DSNS for Sybase IQ is also provided in the following section.
- Used QlikView to create "documents" with Sybase IQ data. These documents include a script, at least one sheet, and sheet objects.
- Created multiple QlikView documents, each of which included the following tasks:
  - Adding ODBC connection information for the Sybase data source within each document script.
  - Selecting tables in the Sybase data source to be loaded into the QlikView in-memory database for use in the document. In some cases, SQL statements were entered directly in the script window and not built using the Edit Script Select feature option.
  - Executing a Reload of the scripts to load the data specified in the connection string and SELECT statement into memory, or to update them when the underlying data were updated.

- Adding Sheet objects to the document sheets to create documents, including the Table Box, Text Box, Statistics Box, List Box, and Current Selections Box.
- Tested a sampling of the QlikView document sheet object boxes, including: List, Statistics, Table, Current Selections, Chart and Text.
- Tested the following sheet object properties: sort options and expressions with a sampling of aggregate functions.
- Used the QlikView interactive selection feature, "Select Possible," to filter and manipulate results. For example, limiting results displayed in the document object by clicking on a specific value.
- Created and tested an interactive document using List box, Statistics box, Text box and Current Selections boxes with Sybase demo database tables. See the section [Creating an interactive document with QlikView](#) for information about how to recreate this interactive document.
- Used QlikView scripts to evaluate QlikView for its ability to execute complex query functions supported by Sybase IQ, including sub-queries, CASE statements, CAST statements, aggregate functions, GROUP BY statements, column aliases, and, also for Sybase IQ SQL99 OLAP queries, such as NTILE, RANK, GROUP BY ROLLUP, GROUP BY CUBE, cumulative summation, calculate moving average and ORDER BY results.
- Evaluated QlikView for handling of Sybase IQ data types. See [2. Data Type Notes](#) in the Test Notes section of this report for detailed data type test information.

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## Setup and Configuration

The following information relates to the setup and configuration of the test environment. It is divided into the following sections:

- [Install, configure and verify Sybase IQ](#)
  - [Install, configure and verify the Sybase IQ ODBC driver \(database client software\)](#)
  - [Install, configure and verify QlikView](#)
- 

### Install, configure and verify Sybase IQ

Install the 64-bit Sybase IQ Server as described in the *Sybase IQ 15.4 Installation and Configuration Guide* for your platform. In the test environment, Sybase IQ was installed and run on a 64-bit Sun SPARC Solaris workstation.

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### Install, configure and verify the Sybase IQ ODBC driver (database client software)

To enable ODBC connectivity between QlikView and Sybase IQ, you must install the Sybase IQ ODBC driver on the machine with QlikView and configure an ODBC data source (DSN) for the target Sybase IQ. Sybase distributes ODBC drivers in database client product packages for most of its servers on supported platforms. The following database client was used for this installation:

- Sybase IQ 15.4 Network Client for Windows, 64-bit

Instructions for installing the Sybase IQ 15.4 ODBC driver and using it to configure an ODBC data source name (DSN) are provided in the [Sybase White Paper: Basic ODBC Connectivity for Sybase IQ 15.4 and SQL Anywhere 12.0.1](#).

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## Install, configure and verify QlikView

This section describes how to install and configure QlikView. For this certification the QlikView Personal Edition x64 was tested.

1. Install QlikView Personal Edition according to the *QlikView Reference Manual*, specifically "Part 2 Installation." This version of QlikView was available on the QlikTech website as the QlikView Desktop x64 free download. on, Complete install and the remaining default values.
2. After installation finishes successfully, choose **Start | Programs | QlikView | QlikView 11**. This launches the QlikView x64 Personal editions and opens it to the Start Page. Proceed to the [Feature Example](#) section of this report for information about using the QlikView create documents with Sybase data. See [Test Note 1.0](#) for information about attempts to use the New Document wizard.

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## Feature Example

This section describes the process for creating a QlikView document with tables from the the Sybase IQ sample database ("iqdemo"), which ships with Sybase IQ. For more information about the sample database, see the Sybase product manual *Introduction to Sybase IQ*, specifically the section "Demo Database" in the "Components" section. For more information about QlikView documents, refer to the *QlikView Reference Manual*.

This example demonstrates the following tasks:

- [Creating a basic document with QlikView](#)
- [Creating an interactive QlikView document](#)

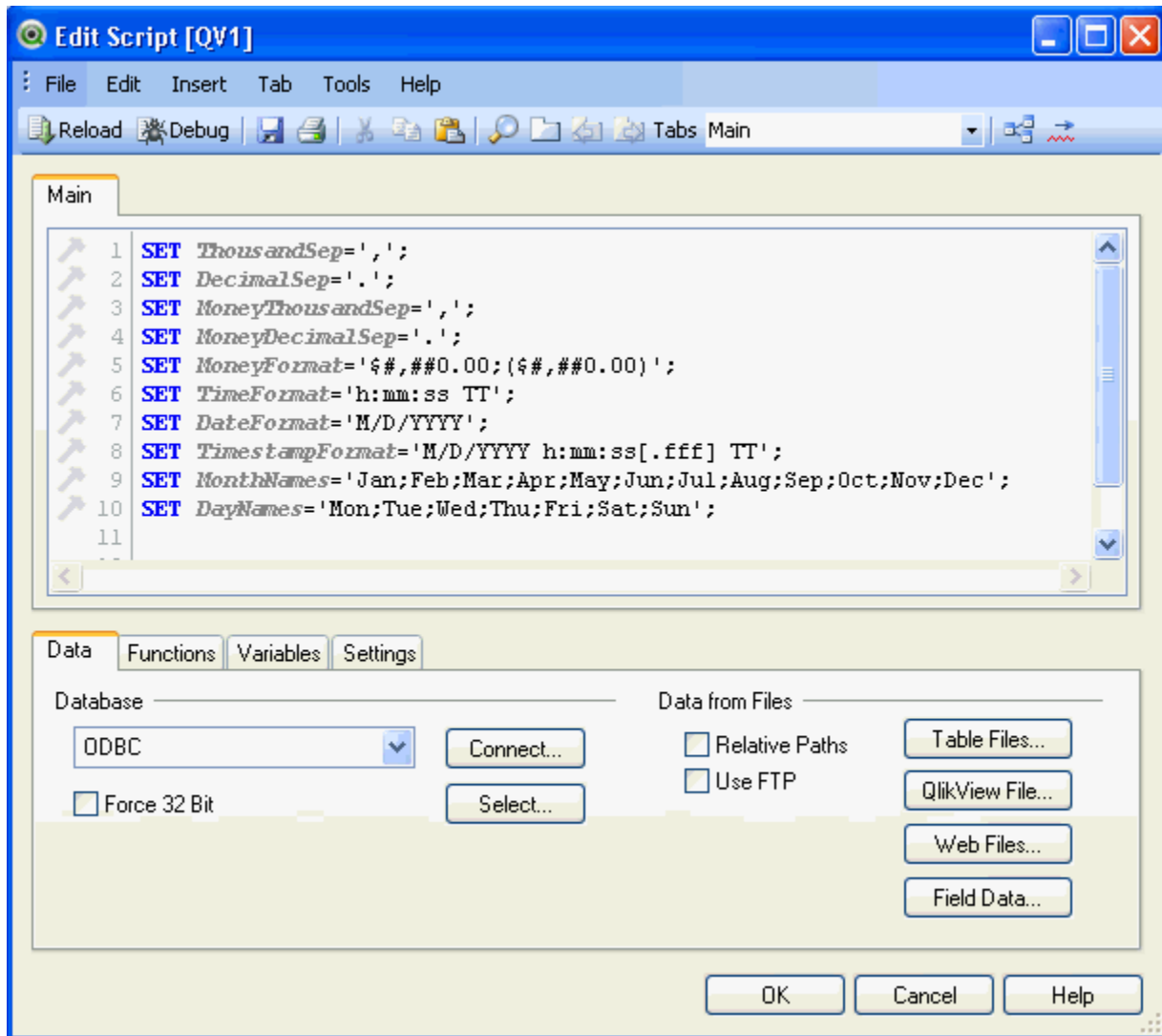
### Pre-requisites

Before performing the tasks in this example, the following tasks must be complete:

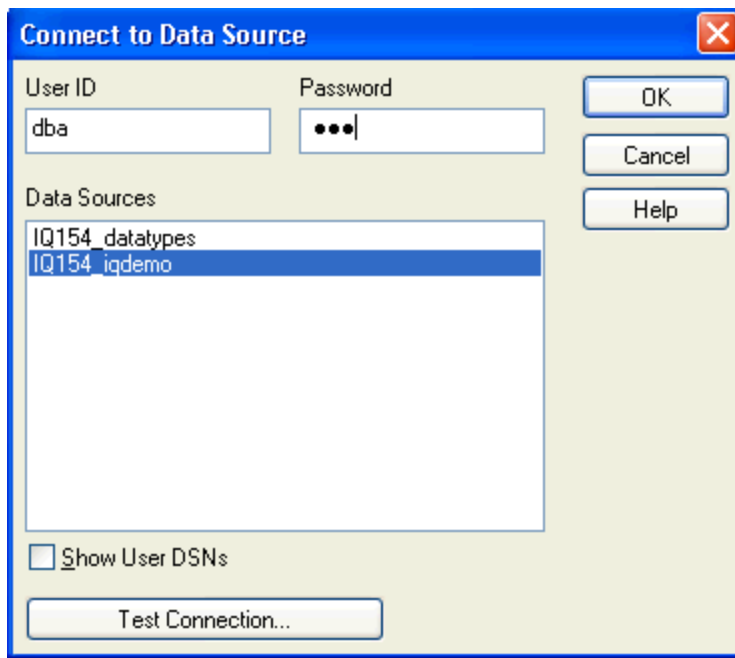
- The QlikView environment must be set up as described in the [Setup and Configuration](#) section of this report.
  - An ODBC data source (DSN) for the target Sybase IQ should be defined on the same machine as QlikView.
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# Creating a basic document with QlikView

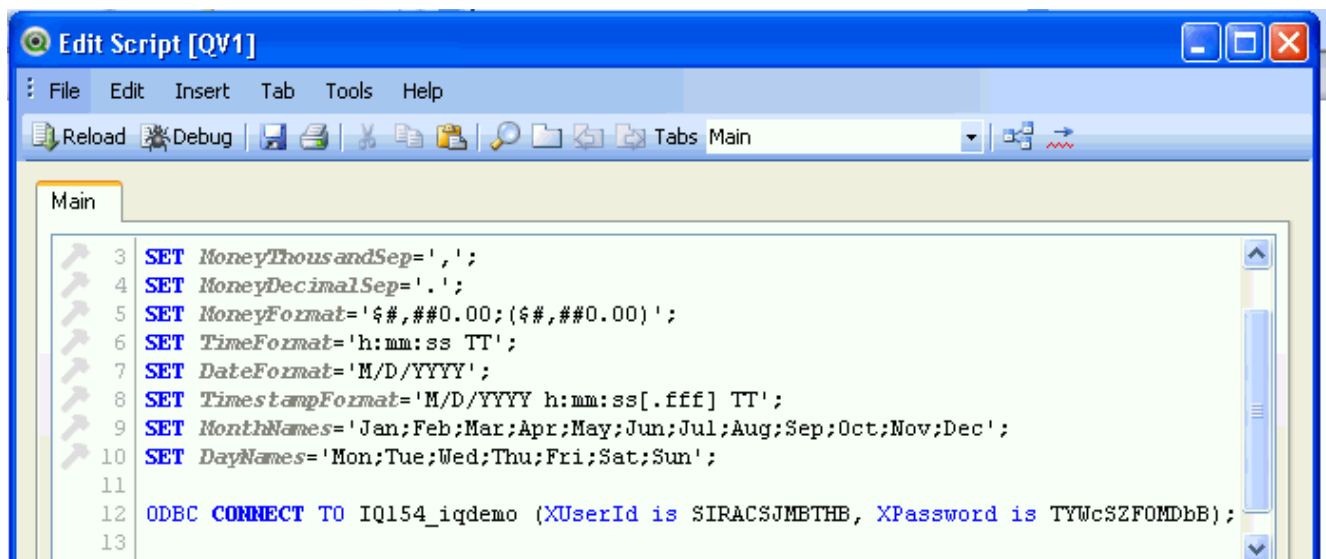
1. Open QlikView Personal Edition.
2. Choose **File | New** to create a new document. A blank Main sheet opens. See [Test Note 1.0](#) for information about the New Document Wizard.
3. Choose **File | Save** to save the new document.
4. Chose **File | Edit Script**. The Script editor opens, showing the default format settings statements. For detailed information about scripts, see "Part 4 Script" in the *QlikView Reference Manual*.



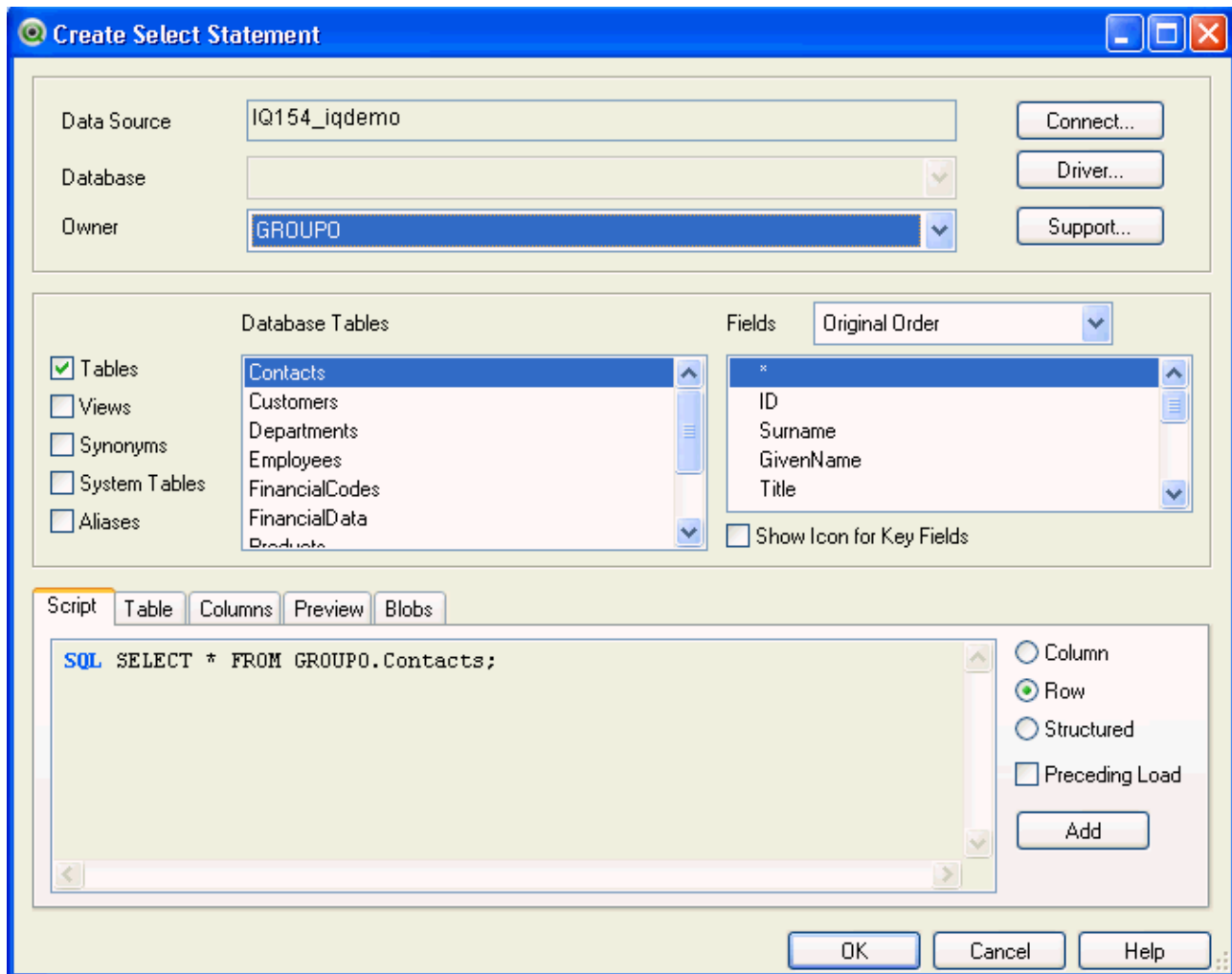
5. Add a CONNECT statement to the document script by clicking the **Connect** button on the **Data** tab below the script pane. The Connect to Data Source dialog box opens, showing the list of existing 64-bit ODBC DSNs. These data sources were defined with the 64-bit ODBC driver using the ODBC Administrator for 64-bit drivers as described in the [Install, configure and verify the Sybase IQ ODBC driver \(database client software\)](#) section earlier in this report.



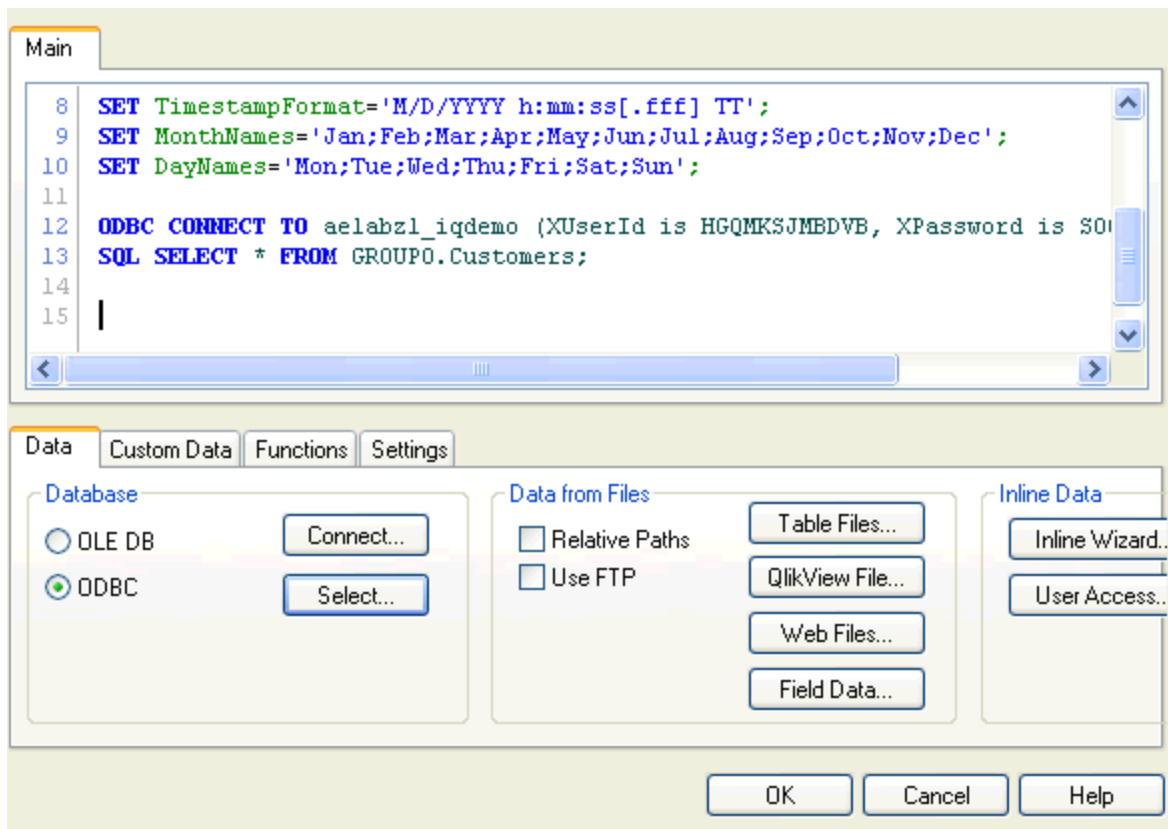
6. Select the Sybase IQ data source you want. The sample screen above shows the data source for the Sybase IQ demo database selected. Provide a valid user id and password for the target Sybase Server, and click **OK**. QlikView adds an ODBC connection string to the script, which includes the ODBC DSN and the encrypted user and password.



7. Select a table or tables from the Sybase data source by clicking the **Select** button, which is below the Connect button on the **Data** tab. The Create Select Statement dialog box opens showing the objects belonging to the first Sybase IQ database owner list alphabetically. You have the option here to see a list of Tables, Views, Synonyms, System Tables and Aliases. Only Tables are selected by default.
8. Select the owner of the tables you want to select. The objects belonging to the selected owner are listed in the Database Tables list. The first table in the list is selected by default. For example, the Sybase IQ demo database tables and views are owned by a user named GROUPO (the last character is a capital letter "O"). You select GROUPO from the Owner field drop-down list to see the list of tables in the demo database. The first table in the list is selected by default.



9. Select the table you want. For example, select the **Customers** table in the demo database and click **Add**. The **SELECT** statement at the bottom of the Script dialog box changes to reflect the selection. If you want to add more tables, select the next table and then click **Add** after each table you add. QlikView does not include any relationships or constraints from the source table as described in [Test Note 1.1](#). You can, however, include an alias for a column or add an expression by manually entering it in the script. See [Test Note 1.2](#) for information about creating an alias for a column. In either case, you may just want to manipulate the **SELECT** statement in the script. You can modify the SQL in the Script Editor.
10. When you finish selecting tables, click **OK**. The **SELECT** statements are added to the script, below the **CONNECT** statement.



11. Click **OK** to save the script and return to the blank Main sheet document.
12. Choose **File | Reload**. QlikView requires that you save the document before you load data, so it will prompt you to save the document. Save it to the default location or create a directory and save it there. The Script Execution dialog box opens while the script executes. Note that the dialog box may disappear quickly if only one or a few tables are selected. The data are loaded into an in-memory version of the selected table or tables for use in the QlikView document.
13. To see the table schema as is held in QlikView memory, choose **File | Table Viewer**. The table viewer panel opens showing the in-memory schema as shown in the following screen. Note that if you specified an alias for the column, that alias would be shown here.

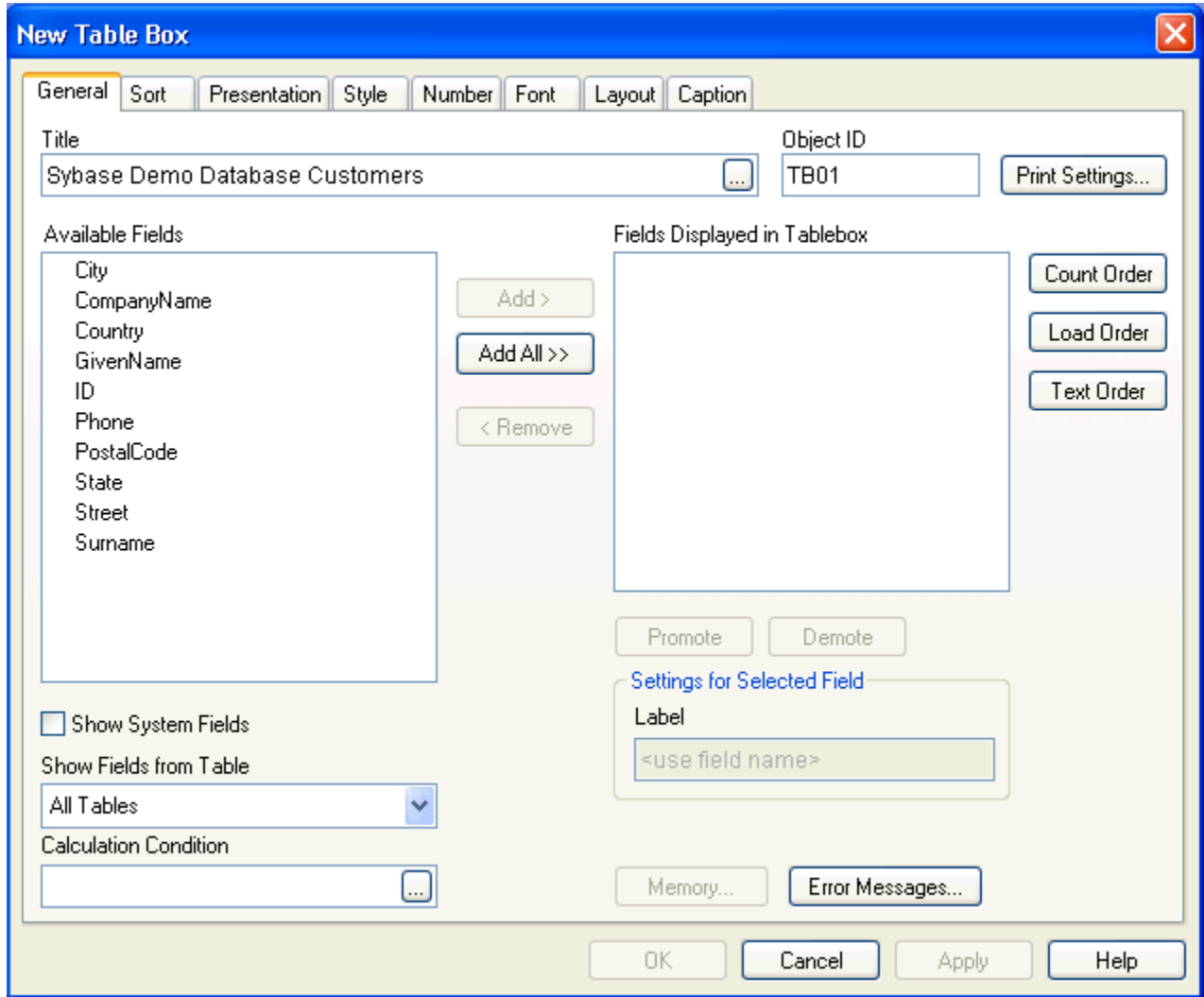
Customers
ID
Surname
GivenName
Street
City
State
Country
PostalCode
Phone
CompanyName

14. Click **OK** to dismiss the table viewer. Now you are ready to add data to the document.
15. Add an object to the blank Main sheet by clicking the sheet, right-clicking and choosing **New Sheet Object** from the pop-up menu. This displays a menu with a list of several objects, called "sheet objects" that you can add to a document. The QlikView tutorial does an excellent job of demonstrating how the interactive objects can be used. A simple example of an interactive document that uses the demo



database data is also provided later in this section, under the heading [Creating an interactive document with QlikView](#).

16. For this simple example, choose **Table Box**. The New Table Box dialog box opens showing the fields (columns) available from the Customers table. Note that the fields are listed in alphabetical order, not the order in which they appear from left to right in the table.
17. Provide a **Title** for the Table Box. For example, the following screen shows the title "Sybase Demo Database Customers."



18. Select the columns you want from the **Available Fields** list by selecting the column and clicking the **Add >** button. This moves the selected column to the Fields Displayed in Tablebox window. You can click the **Add All>>** button to add all the available fields. This moves the fields in the same alphabetical order. If you want them in the same order as the source table, you will need to click the Load Order button. The New Table Box dialog also provides the Count Order, Text Order, or Promote and Demote buttons to manipulate the field order. The following screen shows the Customer columns after all were added and the Load Order button was clicked.

Fields Displayed in Tablebox

ID  
 Surname  
 GivenName  
 Street  
 City  
 State  
 Country  
 PostalCode  
 Phone  
 CompanyName

Settings for Selected Field

Label

<use field name>

19. Click **OK**. The Table Box opens in the Main document sheet with the Customers table data. You can select the Table Box and see the result row and column count (126 x 10 for the Customers table) in the lower right corner of the application. If the results are in a different order than you expected, it could be the result of a default Sort setting. See [Test Note 1.4](#) information about Sort settings. A distinguishing characteristic of QlikView is its dynamic reporting capabilities. You can focus on a specific aspect of the data in the document by clicking on it. For example, if you click on a row in a Table Box, the Table Box will limit the display to only that row. You can remove the selection by right-clicking and choosing Clear Selections from the pop-up menu.

Main									
Sybase Demo Database Customers									
ID	Surname	GivenName	Street	City	State	Country	PostalCode	Phone	CompanyName
333	Jones	Harry	87 Software Rd	Ajax	CA	USA	94020	4085556689	Bits & Bytes
222	Doe	Jane	54 Disk Drive	Ajax	CA	USA	94020	4085558796	data Recovery Services
221	Johnson	Jack	65 Shoebox Lane	Armstrong	NM	USA	40420	5055554568	Turkey Creek Co.
555	Fernandez	Philippe	24 Main Street	Arnprior	CA	USA	90205	2135554457	Quaker Fashions
178	Naidu	Suresh	351 Sycamore Drive	Ayr	CT	USA	6320	2035554440	Amys Silk Screening
665	Thompson	William	19 Washington Street	Bancroft	NY	USA	11700	5165552549	The Apple Farm
152	Jones	Frank	8960 Inelt Business Ctr.	Barrie	NY	USA	11746	5165555952	Play it again Sports
162	Toste	Melba	90 51st Ave North	Beechwood	OH	USA	43065	6145558983	The Real Deal
169	Terlemezian	Laura	123 First Street	Bracebridge	NC	USA	28105	7045558411	CoMed
106	Phillips	Paul	200 Cherry Creek N. Dr.	Brandon	CT	USA	64579	2035553464	Ralston Inc.
551	Cruz	Tom	248 Far Away Lane	Byron	OR	USA	98524	5035557462	Raceway Engines
164	Najarian	Aram	257 Cambridge Center	Cambridge	CT	USA	6811	2035557907	Bloomfields
147	Lela	Manoj	572 Third Avenue North	Campbellford	NJ	USA	07095	9085556021	Norton Co.
177	Zubenko	Joseph	960 Stonehollow Drive	Chandler	NC	USA	27695	9195555152	Avco Ent.
118	Sanford	Kristina	22 96th Street	Chandler	NC	USA	27695-7209	9195555152	Raleigh Active Wear
107	Colburn	Kelly	1131 Vallico Parkway	Chandler	NC	USA	27695-7209	9195555152	The Home Club
128	Mums	Hardy	911 5th Avenue S.W.	Charlottetown	CO	USA	02106	6175554340	BoSox Club

For Help, press F1
10/9/2009 11:36:33 AM\*
126 X 10

20. To refresh data in a document, choose **File | Reload** again.
21. Choose **File | Exit** to exit QlikView or leave it open to perform the tasks in the next section. This completes our basic example of using QlikView. Continue to the next section for information about creating an interactive document with QlikView.

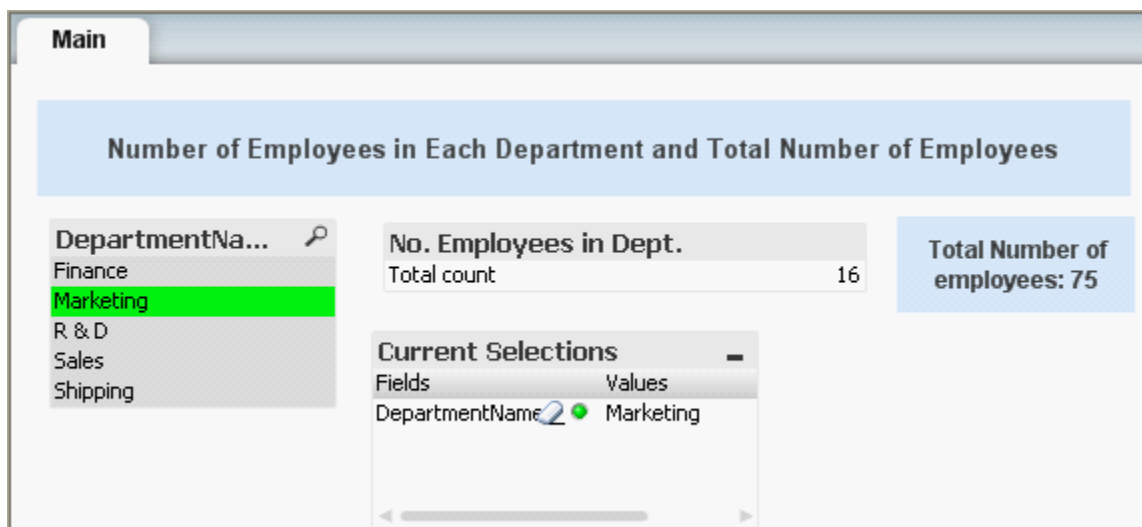
# Creating an interactive document with QlikView

A distinguishing characteristic of QlikView is its dynamic, interactive reporting capabilities. This section provides a simple demonstration of an interactive document with Sybase demo data. For a demonstration of more sophisticated QlikView capabilities and objects, run through the QlikView tutorial.

This sample interactive document will allow users to see how many employees are in a department compared with the total number of employees. This example shows data from the Employees and Departments tables in the Sybase IQ demo database. A picture of the complete sample document is shown below along with a description of the objects and how they are implemented. Instructions for creating the sample document are provided after the picture.

The sample sheet objects are listed from left to right by their names in the sample:

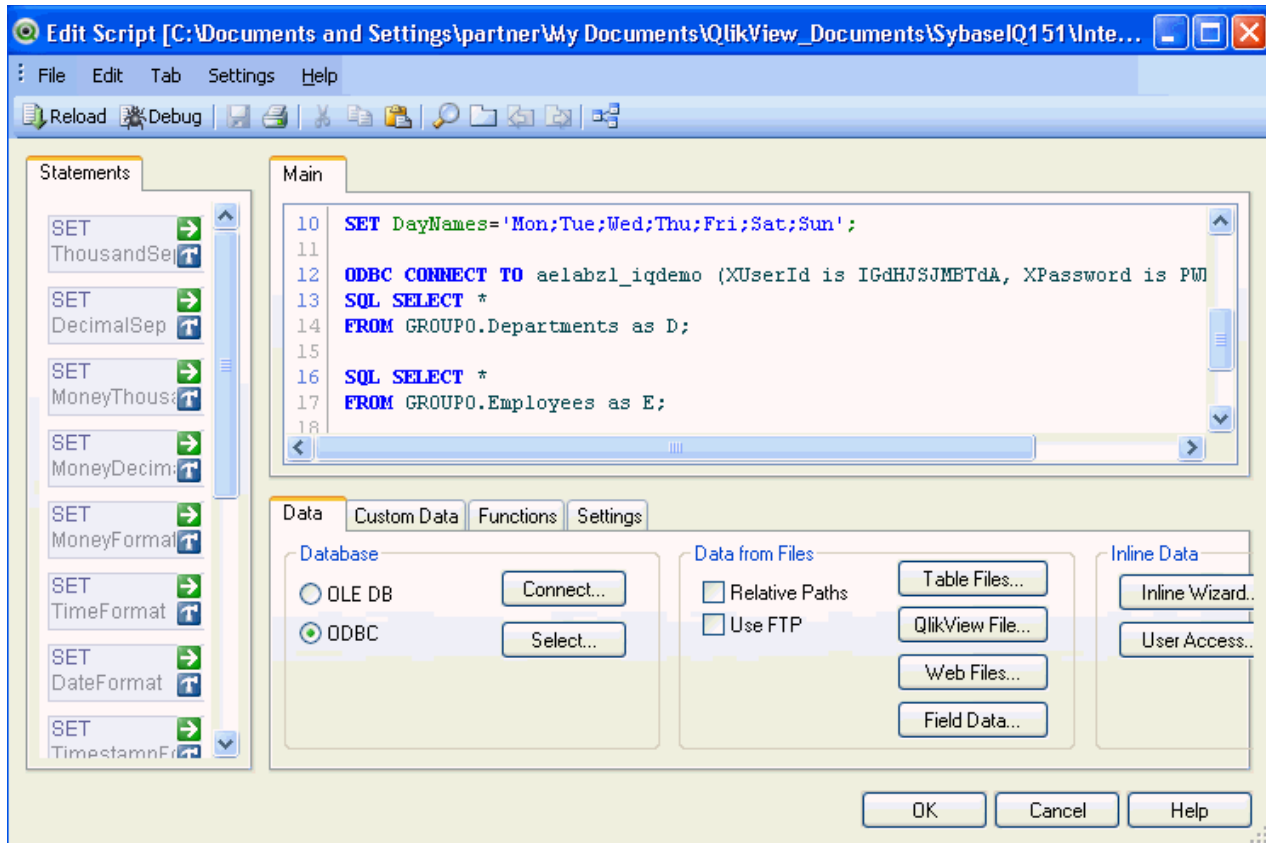
- **DepartmentName - List Box** - this object is configured to display all the rows from the DepartmentName column in the Departments table. When a user selects a department in the list box, the selected department is highlighted in the List Box. This selection affects the number "No. Employees in Dept." object, changing it to show the number of employees in the selected department.
- **No. Employees in Dept. - Statistics Box** - this object is configured to count the number of employees in a selected department. The value displayed in this box changes whenever a user selects a different department in the DepartmentName List Box.
- **Current Selections** - Current Selections Box - this object displays the department currently selected in the DepartmentName box. This value changes whenever the user selects a different department in the DepartmentName List Box.
- **Total Number of employees: 75 - Text Box** - this object is configured to display the text "Total Number of employees" and then the total number of employees based on a total count aggregate function applied to the EmployeeID field in the Employee table.



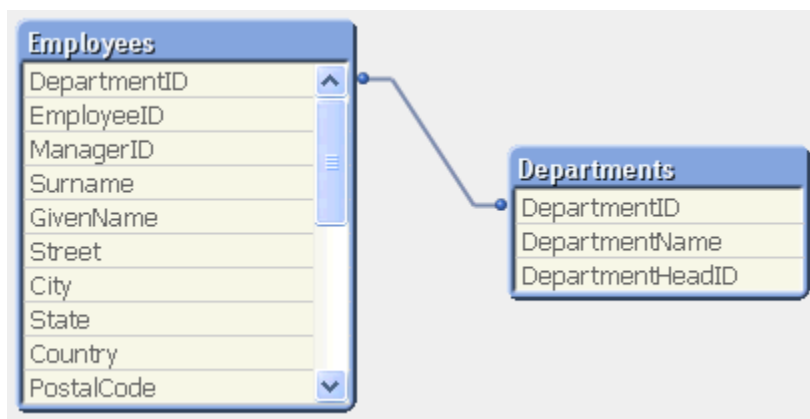
To create this sample interactive document using the Sybase demo Employees and Departments tables, perform the following steps:

1. Use QlikView to create a new document as described earlier in this section, under the heading [Creating a basic document with QlikView](#).
2. Edit the document script to add an ODBC connection to a Sybase data source configured to access a Sybase demo database. If you do not have an ODBC DSN pointing to a Sybase demo data source, you will need to create one first.

3. Select the following Sybase demo database tables: **Departments** and **Employees**. The following screen shows the sample script based on these selections with aliases specified for the tables.



4. Click **OK** to close the script window, choose **File | Save** to name and save it, and choose **File | Reload** to execute the script. When the script finishes running, the selected table data will be loaded into the QlikView in-memory database.
5. To see how the table schemas are stored in the in-memory database, choose **File | Table Viewer**. QlikView will create a logical join on the DepartmentID column, which exists in both tables. QlikView does not import the relationships defined in the Sybase data source but makes its own logical joins for columns with the same names in different tables. QlikView uses the term "associations" to refer to these logical joins as described in [Test Note 1.1](#).



6. Click **OK** to close the Table Viewer. The blank document Main sheet is open in QlikView. Now, you need to add the objects to create the sample interactive report.

7. Right-click in the Main sheet and choose **New Sheet Object | List Box** from the pop-up menu. The New List Box properties dialog box opens with the General tab in focus.
8. On the **General** tab, leave the Title field blank and select **DepartmentName** from the drop-down list of available columns in the Field box. The **Use as Title** check box is selected by default. This specifies to use the selected column name as the List Box title. Leave the remaining options with the default values on this and the other tabs.

**New List Box**

General | Presentation | Sort | Number | Font | Layout | Caption

Title: <use field name> [...]

Object ID: LB02

Field: DepartmentName [v]

☒ Use as Title

☐ And mode      ☐ Show Frequency

☐ Show Alternatives      ☐ In Percent

☐ Hide Excluded

☐ Read Only

☐ Always One Selected Value

☐ Override Locked Field

☐ Show Info Automatically

☐ Show as TreeView

With Separator: /

Search:

Include Excluded Values in Search: <use default> [v]

Default Search Mode: <use default> [v]

Print Settings...

☐ Print All Values

☒ Layout Dependent Print

OK Cancel Help

9. Click **OK** and then **Save**. A List Box named "DepartmentName" will be added to the Main sheet, showing the list of available departments.
10. Right-click in the Main sheet again and choose **New Sheet Object | Statistics Box** from the pop-up menu. The New Statistics Box dialog box opens with the General tab in focus.
11. On the **General** tab, enter **No. Employees in Dept.** in the Title box.
12. Select **EmployeeID** from the drop-down list of available columns in the Field box and then add a count aggregate by locating **Total count** in the **Available Functions** list and clicking **Add>** to move it to the **Displayed Functions** window. Leave the remaining default values on this and the other tabs.

**New Statistics Box**

General Number Font Layout Caption

Title: No. Employees in Dept. Object ID: SB02

Field: EmployeeID Print Settings...

☐ Use as Title

Available Functions: Numeric count, Null count, Text count, Missing count, Sum, Average, Std dev, Skewness, Kurtosis, Min, Max, Only value

Displayed Functions: Total count

Settings for Selected Row: Label: Total count, Background Color: [Light Blue], Text Color: [Dark Blue]

☐ Show Standard Error ☐ Cell Borders ☐ Apply Colors to all Rows

Buttons: Add > < Remove OK Cancel Help

13. Click **OK** and **Save**. A Statistics Box named "No. Employees in Dept." will be added to the Main sheet. Note that it displays the number of employees for the department selected in the DepartmentName List Box.
14. Right-click in the Main sheet and choose **New Sheet Object | Current Selections**. The New Current Selections Box dialog opens with the General tab in focus. Notice that the Title field defaults to **Current Selections**.
15. Accept the default values on the General and the other tabs.

**New Current Selections Box**

General Font Layout Caption

Title: Current Selections

Object ID: CS02

Print Settings...

**Displayed Columns**  
The Fields Column is Always Shown

☒ Status ☒ Clear Icons  
☒ Values ☐ Lock/Unlock Icons

☒ Use Column Labels

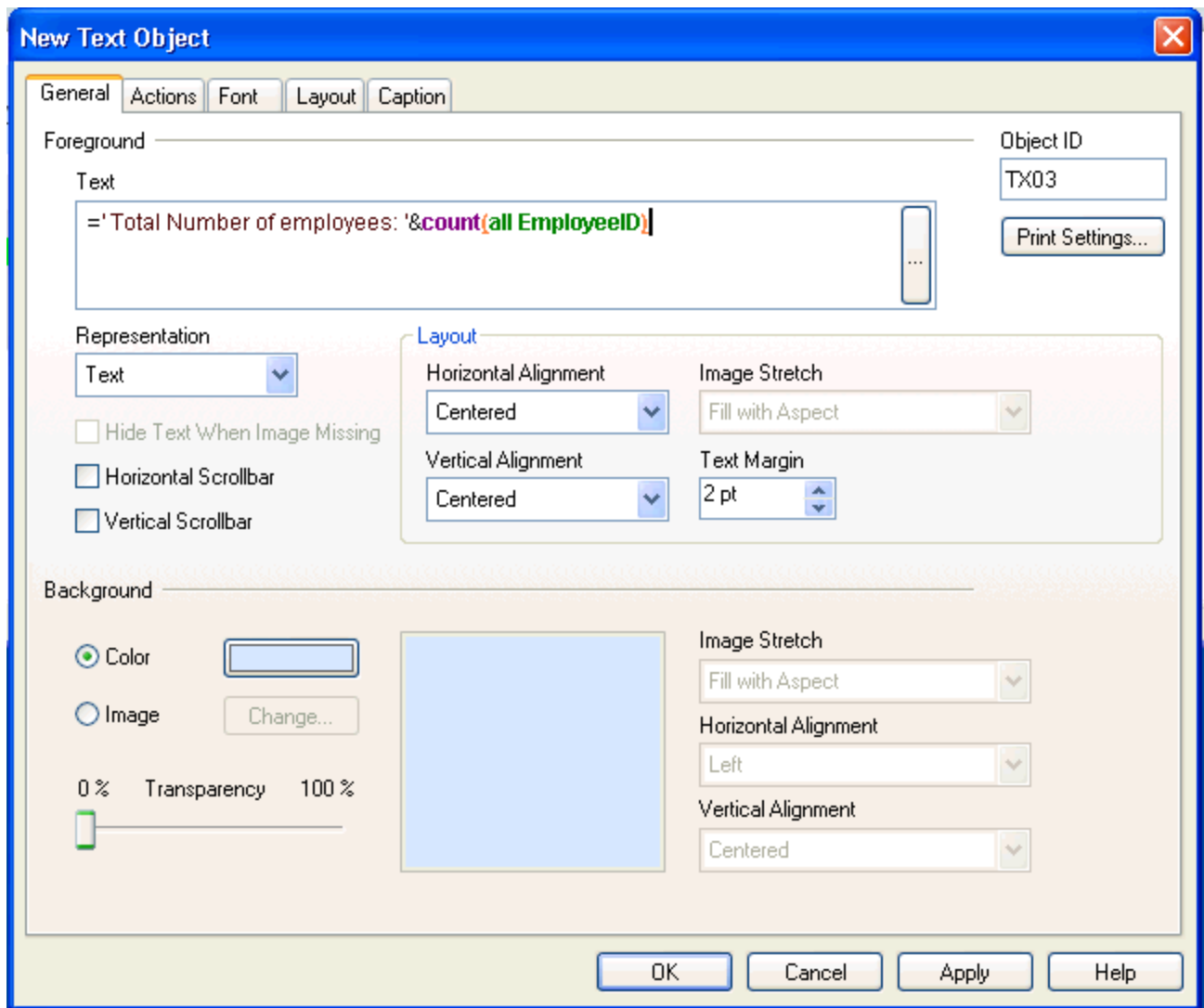
Fields: Fields  
Status:   
Values: Values

**Color**

Label Background:   
Label Text Color:   
Background:   
Text Color:

OK Cancel Help

16. Click **OK** and **Save**. The Current Selections Box is added to the Main sheet. It will report the department currently selected by default in the DepartmentName List Box.
17. Finally, right-click in the Main Sheet again and choose **New Sheet Object | Text Object**. The New Text Box dialog box opens with the General tab in focus.
18. On the **General** tab, enter the following in the Text field: **= 'Total Number of employees: '&count(all EmployeeID)** exactly as shown here in bold. You can accept the remaining defaults on the General and other tabs.



19. Click **OK** and **Save**. A Text Box with the text "Total Number of Employees: 75" is added to the Main sheet. Note that the number 75 count of employees is calculated from a total count of the EmployeeID column in the Employee table. The Main sheet should now look like the complete sample shown at the beginning of this section.

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## Test Notes

This section contains information gained during testing, which may be helpful. The notes are divided into the following sections:

[Test Notes 1: QlikView Notes](#)

[Test Note 1.0: The New Document Wizard requires specification of the Microsoft Excel location](#)

[Test Note 1.1: Relationships from the source database are not imported](#)

[Test Note 1.2: Creating column aliases in the script](#)

[Test Note 1.3: Display formats](#)

[Test Note 1.4: Default format settings may affect results](#)



[Test Notes 2: Data Type Notes](#)

[Test Note 2.0: Display BOB data in the Text Box sheet object](#)

[Test Note 2.1: Decimal values display as a pound sign \(#\)](#)

[Test Note 2.2: Null values for all types display a dash in the field](#)

[Test Note 2.3: Data type test table](#)

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## Test Notes 1: QlikView Notes

### Test Note 1.0: The New Document Wizard requires specification of the Microsoft Excel location

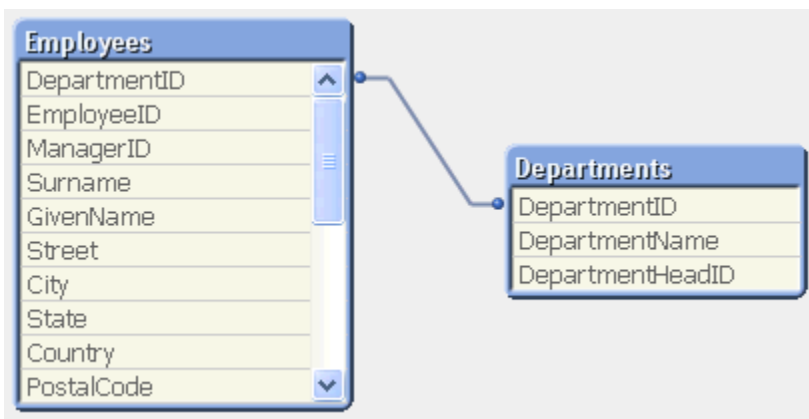
The first few attempts to create a new Document by choosing File | New from the QlikView toolbar resulted in the display of the New Document wizard. This wizard prompts you to specify the path to the Microsoft Excel data source.

**Workaround:** Because Sybase IQ was the data source for this certification instead of Excel, the option to disable the display of the New Document wizard was chosen. Subsequently, choosing File | New to create a new document resulted in the display of a blank document.

### Test Note 1.1: Relationships from the source database are not imported

According to QlikTech, relationships and constraints from the source tables are not included in the in-memory snapshot of the data that QlikView creates. It will make logical "associations" based on loaded data, such as logical joins on columns with the same name. For example, the demo database Employees and Departments tables both have a column named "DepartmentID." QlikView creates an association on these columns. When the columns/fields are listed in Sheet objects, you will only see one DepartmentID column.

Typically associations are controlled from within the script. Where associations are desired, fields should be aliased to have the same name as needed. Where associations should be prevented from forming, fields should be aliased to have different names as needed. See [Test Note 1.2](#) for information about creating a column alias.



### Test Note 1.2: Creating column aliases in the script

You can create a column alias in the document Script by including the alias with the column name using the syntax "<original\_column\_name> as <alias\_name>". For example, to distinguish a column named "id" from one in a different table, you could modify the part of the SELECT statement that selects that column as follows:

```
SELECT id as id1....
```

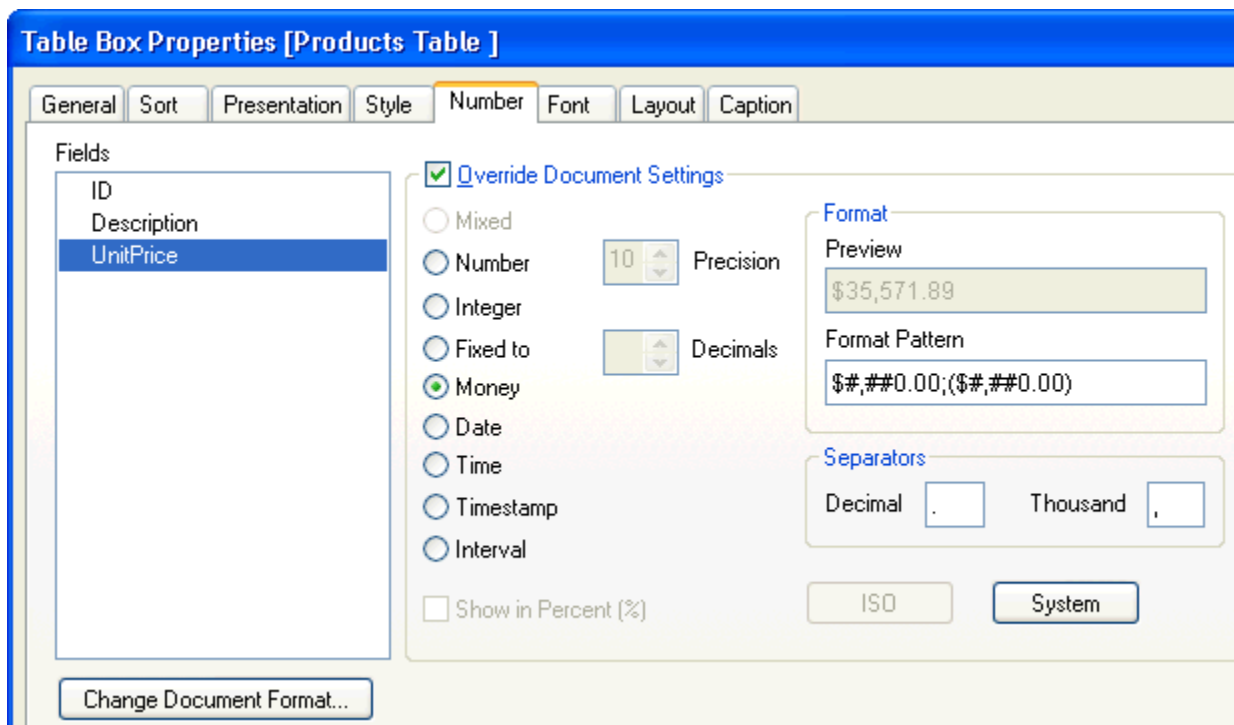
### Test Note 1.3: Display formats

Analyzer allows you to specify display formats values of type number, decimal, money, date, time or timestamp. You can set formats using any of the following methods:

- In the Script Editor, which shows the default settings at the top of the script
- In the Document Properties, which is available under the Analyzer settings menu
- In the sheet object properties, which you can display by selecting the object, right-clicking and choosing Properties

To use the object Properties method, for example, consider the UnitPrice column in the demo Products table. By default, it displays in a Table Box object as a number with a scale of two (two decimal places). To display the UnitPrice in a money format, you can do the following:

1. Select the Table Box, right-click and choose **Properties** from the pop-up window. The Properties dialog box opens.
2. Display the **Number** tab and select the **UnitPrice** column.
3. Select **Override Document settings** and select **Money** from the list below. The Format Pattern changes to reflect your selection.

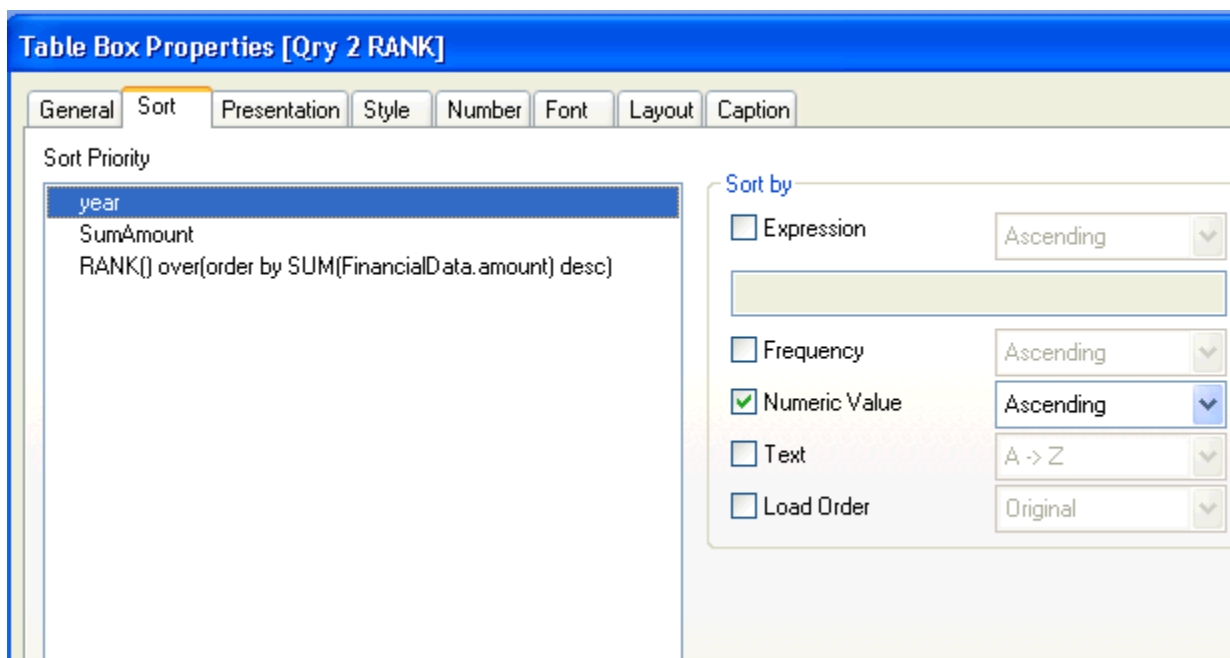


4. Click **OK** at the bottom of the Properties dialog box (not shown). The UnitPrice column is now formatted with a dollar sign.

Products Table		
ID	Description	UnitPrice
300	Tank Top	\$9.00
301	V-neck	\$14.00
302	Crew Neck	\$14.00
400	Cotton Cap	\$9.00
401	Wool cap	\$10.00
500	Cloth Visor	\$7.00
501	Plastic Visor	\$7.00
600	Hooded Sweatshirt	\$24.00
601	Zippered Sweatshirt	\$24.00
700	Cotton Shorts	\$15.00

## Test Note 1.4: Default sort settings may affect results

During testing some test results did not return in the expected order. In some cases, a default Sort setting in the Sheet Object properties caused this to happen. For a column defined with a numeric type, the Sort tab Numeric Value option is set to Ascending by default. For a column defined with a string type, the Sort tab Text option is set to A->Z by default. Deselecting these default settings or changing them to Descending changed the order in which the results returned. For example, the following screen shows the default Sort options for a numeric value in a Table Box Sheet Object.



## Test Notes 2: Data type notes

This section contains notes about data type testing and a table summarizing the data types tested.

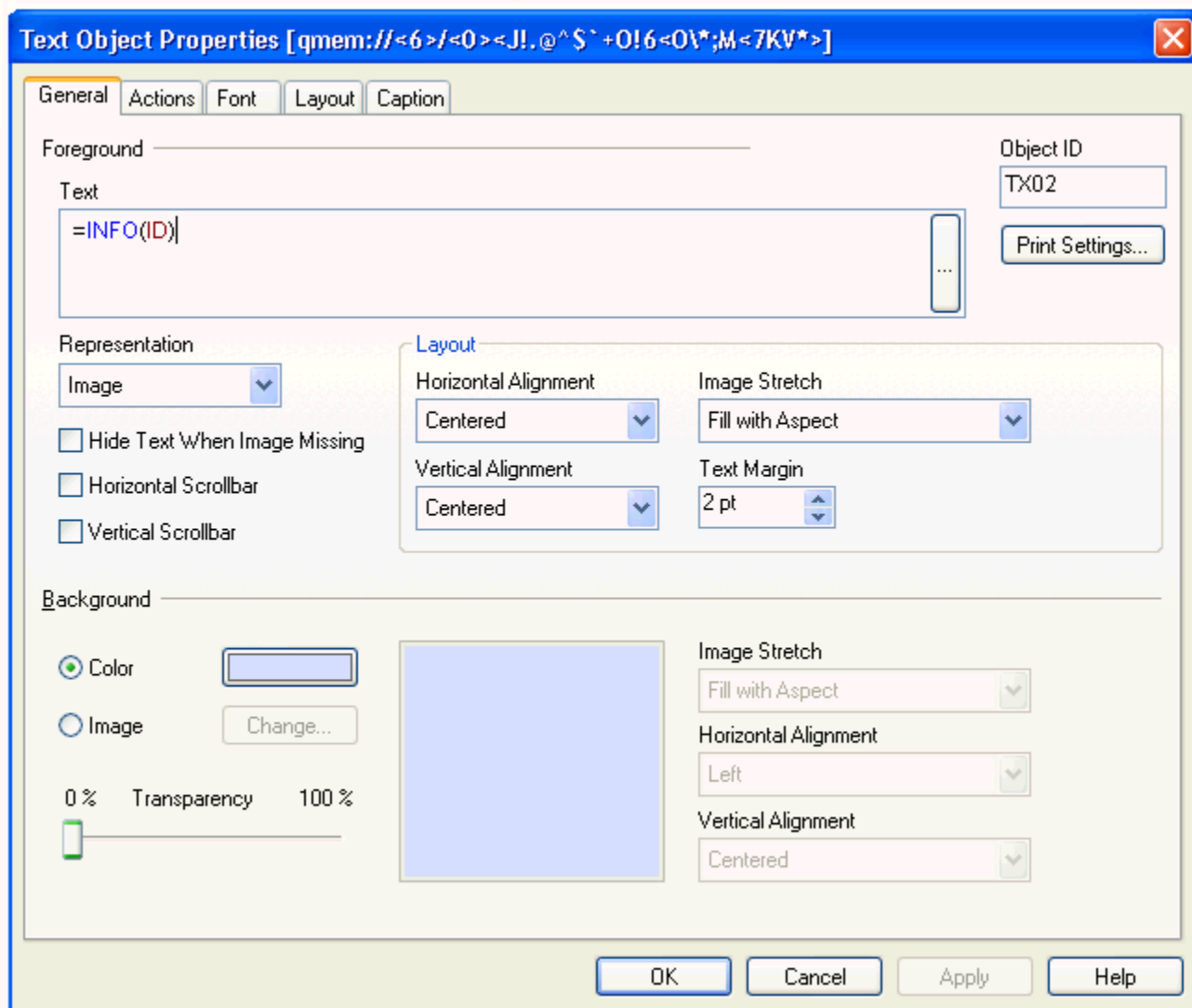
### Test Note 2.0: Display BLOB data in the Text Object

To display and render data in a QlikView document, use the Text Box object and select "Image" as the Representation option. This topic is addressed in the QlikView Community thread at <http://community.qlikview.com/thread/2314>. It describes using an INFO SELECT statement in the document

script and then displaying the data in a Text box with the Representation option set to Image and  
"=INFO(<ColumnName>)" in the Text input field on the General tab. Following is a sample script, which  
displays one of the products in the sample IQ demo database Products table:

```
ODBC CONNECT to IQ154_iqdemo (XUserId is XQURKSJMDOB, XPassword IS ECEAXZFOMDFA);  
INFO SELECT ID, Photo FROM GROUPO.Products WHERE ID = 300;
```

Notice that this script limits results to one row and, therefore, one photo. Following is a sample Text Object Properties screen configured to display an image. Notice that Representation is set to Image and the Text input field contains INFO and the column name ("=INFO(ID)");



## Test Note 2.1: Decimal values display as a pound sign (#)

Some test decimal values displayed in QlikView sheet objects as pound signs (#). Testing showed two reasons for this:

- The value exceeded the precision of 14, which is the max precision supported by QlikView.
- The field size allocated for the value in the sheet object was too small.

## Values exceeding precision of 14

Any attempts to specify a precision larger than 14 in the Number Properties override for the sheet object were unsuccessful. The value consistently reverted to 14. Thus all test values exceeding precision 14 were truncated, displayed as pound signs or in scientific notation.

### Field size allocation too small

The field size allocation problem is easy to fix. Simply stretch the sheet object until it is big enough to display the value.

If decimal values display as pound signs (#), you can select and resize the column in the Table object, or you can specify a display format as described in [Test Note 1.3](#).

### Test Note 2.2: Null values for all types display a dash in the field

QlikView displays a dash for all null values of all types for Sybase IQ.

### Test Note 2.3: Data Type test table

A sampling of the following Sybase IQ 15.4 supported data types were tested. Large values (where maximum values are theoretical and restricted by hardware) and minimum values, as well as null and not null values were tested. All values returned as expected unless noted otherwise. All data type data were tested in Table Box Sheet objects except BLOB types, which were displayed in a Text Box object as described in [Test Note 2.0](#) above.

Types	Sybase IQ 15.0
Exact Numeric Integer Types	<b>tinyint, smallint, int, unsigned int, bigint, and unsigned bigint</b> - All values of all types returned as expected. Null values displayed as a dash.
Exact Numeric Decimal Types	<b>decimal, numeric, smallmoney and money</b> - Values displayed in monetary or exponential format by default. You can modify Number format Properties in the Sheet Object to change formats as described in <a href="#">Test Note 2.1</a> . In the Number Properties override, QlikView only allowed maximum precision value of 14. Attempts to enter any higher values reverted to 14. Note that this is true even though the column information in the Script Columns panel shows the correct length/precision for the fields. Thus, test decimal values with precision 19 and scale 4 rounded up or displayed as ### signs. Some test values with precision higher than 14 displayed in scientific notation. Values with precision less than 14 displayed as expected. Null values displayed as a dash.
Approximate Numeric Float Types	<b>float, real and double</b> - Values displayed in scientific notation. Some rounding occurred for all types. Null values displayed as a dash.
Character Types	<b>char in lengths 1 and 254 and varchar in lengths 10 and 254</b> - All values displayed as expected. Null values displayed as a dash.
Date/Time Types	<b>date, time, smalldatetime, datetime and timestamp</b> - All values displayed as expected. Null values displayed as a dash. Note QlikView sets default date and time formats in the document script.
Binary Types	<b>binary and varbinary</b> - Values displayed as expected but without the "0x" prefix thereby giving no indication they were binary.
Large Object Types	<b>CLOB (character large object) and long varchar in length 300</b> - displayed all 300 characters but it displayed two values in the same column of the same row instead of two

	rows in different columns as expected.  <b>BLOB and image types</b> - The Script Editor Create SELECT statement provides a tab at the bottom to the far-right for Blobs. The Photo column from the demo database Products table was selected and the Blobs tab Blob Viewer came up with a list of the blobs by row and file size. Selecting a row displayed the picture in the Blob viewer. The Text Box object configured with Representation set to Image displayed the BLOB data as expected.
Multi-byte Data	<b>Simplified Chinese data inserted into a varchar column in a UTF8 database</b> - Note that the Microsoft Asian Language packs were installed on the QlikView host machine and the appropriate language packs were installed on the Sybase IQ host Solaris workstation. All values displayed as expected.
User-defined Types	<b>User-defined data types</b> based on <b>char</b> , <b>numeric</b> and <b>identity types</b> - All values displayed as expected.

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## Issues and Incompatibilities

This section describes the issue found during testing.

### Issue 1: Problem displaying long varchar and CLOB values

In a QlikView Table Box, tests showed that long varchar and CLOB values in length 300 displayed all 300 characters but displayed two values in the same column of the same row instead of two rows in different columns as expected.

## Test Environment

This section provides details about the test environment.

### Client Machine

Hardware or Software	Description or Version
Machine	Intel(R) Xeon(R) CPU, 2.13 GHz, 64-bit VM running on a VMWare ESX Server version 4.0.0
Memory (RAM)	4.00 GB
Operating system	Microsoft Windows XP Professional x64 Edition Service Pack 2
Disk space	20 GB
Network	TCP/IP Ethernet E1000

Language software	Microsoft Asian language packs
Sybase IQ ODBC driver	Sybase IQ 12.00.01.6567 64-bit, installed with the Sybase IQ 15.4 Network Database Client for Windows x64
Interactive Reporting Software	QlikView Analyzer for Windows (64-bit) Microsoft Windows executable, 11.00.11154.0 IR 64-bit Edition (x64)

## Sybase IQ Server Machine

Hardware or Software	Description or Version
Machine	Sun Ultra SPARC IV (64-bit) running four 1.8 GHz processors
Memory (RAM)	32 GB
Operating system	64-bit Sun Solaris 10 with language packs installed
Disk space	1 TB
Network	Ethernet, TCP/IP
Language software	Sun language packs
Analytics Database	Sybase IQ 15.4.0.6567, 64-bit

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## Other Sources of Information

### Sybase e-shop

Sybase provides product and technical documentation online at [mysybase.com](http://mysybase.com), including the certification reports written by the Sybase Application Engineering Team. You may also order paper versions of product manuals through Sybase's online store, <http://e-shop.sybase.com>.

### Sybase Partner Program

For more information about the Sybase Partner Program, please visit the Sybase Partner Program website, <http://www.sybase.com/partner>.

## Vendor Contact Information

**Vendor Name:** QlikTech

**Address:**

Global and North American Headquarters  
150. N. Radnor Chester Road  
Suite E220  
Radnor, PA 19087

**Web site:** [www.qliktech.com](http://www.qliktech.com)

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