

Qlikview Step By Step Tutorial

Qlikview Step By Step Tutorial

Downloaded from turn-nyc-edge-vdmdp.louper.io by Moriah & Swanson

INTRODUCTION TO QLIKVIEW: UNLOCKING DATA INSIGHTS

In the modern business landscape, data is the new currency. However, raw data is meaningless without the right tools to transform it into actionable insights. **QlikView** is a powerful business intelligence (BI) and data visualization platform that enables users to create interactive dashboards and reports. Unlike traditional query-based tools, QlikView uses an in-memory associative data model, allowing users to explore data freely, ask ad hoc questions, and uncover hidden patterns. Whether you are a business analyst, a data enthusiast, or a professional looking to upskill, mastering QlikView can dramatically improve your ability to make data-driven decisions.

This comprehensive **QlikView step by step tutorial** is designed for beginners and intermediate users. We will walk through the entire process—from installation and data loading to building visualizations and publishing your first application. By the end, you will have a solid foundation to create your own dashboards and share insights across your organization. Let’s dive in.

WHAT IS QLIKVIEW AND WHY USE IT?

QlikView is a leading BI tool developed by Qlik. Its key differentiator is the **associative data model**, which indexes every data value and links them across all tables. This means that when you select a value in one chart, all other visualizations automatically update to show only related data—no predefined hierarchies or queries needed. This makes exploration intuitive and fast.

Some core advantages of QlikView include:

- **Speed:** In-memory processing delivers near-instant responses even with large datasets.
- **Associative experience:** Colored associations (green, white, gray) show what data is selected, available, or excluded.
- **Self-service BI:** Users can interact directly without IT intervention.
- **Powerful scripting:** The script editor allows complex data transformations and ETL processes.

This tutorial will take you from zero to a functional QlikView application. Let's begin with the first step: installation.

STEP 1: INSTALLING QLIKVIEW

Before you can build anything, you need to have QlikView installed on your machine. Qlik offers a free **QlikView Personal Edition** which is fully functional for personal use and learning. Here’s how to install it:

1. Visit the official Qlik website and navigate to the downloads section.
2. Select “QlikView” and choose the Personal Edition (or download a trial of the enterprise version if you prefer).
3. Run the installer and follow the on-screen instructions. Accept the license agreement and choose your installation directory.
4. During installation, you can select components like the QlikView server, but for a local development environment, the Desktop client is sufficient.
5. Once installation completes, launch QlikView. You will be greeted with a blank application window.

Note: Ensure your system meets the minimum requirements (at least 8 GB RAM recommended). QlikView works on Windows operating systems.

STEP 2: UNDERSTANDING THE QLIKVIEW INTERFACE

When you first open QlikView, the interface may appear dense, but it is logically structured. Key areas include:

- **Menu Bar:** Contains file, edit, view, and tools options.
- **Toolbar:** Quick access to common actions like save, open, reload data, and toggle between design and sheet modes.
- **Design Sheet:** The main workspace where you drag and drop objects (charts, tables, list boxes).
- **Script Editor:** Accessed via File → Edit Script (Ctrl+E). This is where you define your data connections and transformations.
- **Sheet Objects Panel:** On the left, you can see all objects placed on the current sheet.

Spend a few minutes clicking around to familiarize yourself. In this QlikView step by step tutorial, we will use these components extensively.

STEP 3: LOADING DATA INTO QLIKVIEW

Data loading is the foundation of any QlikView application. The script editor allows you to connect to various data sources: Excel, CSV, databases (via ODBC), web files, and more. For this tutorial, we will load a sample Excel file.

3.1 Prepare Your Data Source

Create a simple Excel file with two columns: “Product” and “Sales”. Add a few rows of sample data. Save it as *SalesData.xlsx*.

3.2 Open the Script Editor

Press **Ctrl+E** or go to File → Edit Script. The script editor opens with a default empty script.

3.3 Add a Table Files Connection

Click on the **Table Files** button (or Insert → Table Files). Browse to your Excel file and select it. In the wizard, choose the sheet (e.g., Sheet1). QlikView will automatically preview the data. Accept the default settings and click **OK**.

The script will now contain something like:

```
LOAD Product, Sales FROM SalesData.xlsx (ooxml, embedded labels, table is Sheet1);
```

This is a basic load statement. You can also add transformations, filters, or joins manually. For now, close the script editor and click **Reload** (or press Ctrl+R) to load the data into memory.

After reloading, the data is available for use in your sheets.

STEP 4: BUILDING YOUR FIRST SHEET AND VISUALIZATIONS

Now that you have data, you can create interactive visualizations. By default, QlikView opens a new sheet. You can rename sheets by right-clicking the sheet tab.

4.1 Add a List Box

A list box shows distinct values of a field. To add one:

- From the menu, go to **Objects → New Sheet Object → List Box**.
- In the dialog, select the field “Product”.
- Click OK. A list box appears on your sheet showing product names.

Now select one product. Observe that the list box turns green for the selected item, and any other objects will filter accordingly.

4.2 Create a Bar Chart

To visualize sales by product:

1. Go to **Objects → New Sheet Object → Chart**.
2. In the Chart Properties wizard, select “Bar Chart” as the chart type.
3. On the **Dimensions** tab, add “Product” as the dimension.
4. On the **Expressions** tab, click “Add” and enter Sum(Sales) as the expression.
5. Finish the wizard. A bar chart appears with sales per product.

If you select a product in the list box, the bar chart will automatically highlight or filter to show only that product's sales—thanks to the associative model.

4.3 Add a Filter Box

Filter boxes (multi-list boxes) allow filtering on multiple fields. Add one for “Sales” (as a range filter) or for “Product” as a multi-select. Use the same method as list box but choose “Filter Box” instead. Customize the appearance in properties.

Experiment by adding different chart types: pie charts, tables, and gauge charts. The key skill is understanding dimensions (categories) and expressions (measures like sum, count, avg).

STEP 5: MASTERING EXPRESSIONS AND SET ANALYSIS

Expressions are the heart of QlikView calculations. While `Sum(Sales)` is straightforward, you often need more complex logic. QlikView provides numerous aggregation functions and a powerful feature called **Set Analysis** for dynamic filtering.

5.1 Basic Expression Examples

- `Count(Product)` – counts distinct products.
- `Avg(Sales)` – average sales.
- `Max(Sales)` – maximum sales value.
- `Sum({} Sales)` – sum of sales only for Laptop, using set analysis.

5.2 Introduction to Set Analysis

Set analysis allows you to define a “set” of data different from the current selections. The syntax is: `Sum({[set_expression]} Sales)`. Common identifiers include:

- `$` – current selections
- `1` – all data (ignore selections)
- `~` – alternative (inverse selection)

Example: `Sum({1} Sales)` always returns total sales regardless of user selections. Combine with modifiers like `to` to filter within the set.

Set analysis is a topic that deserves deeper study, but even basic usage can enhance your dashboards significantly.

STEP 6: ENHANCING THE USER EXPERIENCE WITH LAYOUT AND NAVIGATION

A well-designed dashboard is intuitive. Use the following tips:

- **Organize sheets:** Have a summary sheet, a detailed analysis sheet, and a data table sheet.

- **Use container objects:** Group related charts together.
- **Add text objects** for titles and descriptions.
- **Set default colors and fonts** via the layout properties.
- **Enable bookmarks** (Create a bookmark from the menu) so users can save their selections.

To make your dashboard interactive, add buttons that trigger actions like clearing selections or navigating to another sheet. Use **Actions** in object properties under the “Actions” tab.

STEP 7: SAVING AND PUBLISHING YOUR QLIKVIEW APPLICATION

Once your dashboard is ready, save it as a **.qvw** file (File → Save As). If you have a QlikView Server environment, you can publish the application for others. For personal use, you can share the .qvw file directly with colleagues who have QlikView installed, or export to PDF (File → Export → Report).

For enterprise deployment, publish via the QlikView Management Console (QMC). This step is beyond the scope of a beginner tutorial, but knowing the basics of the .qvw file format is essential.

STEP 8: TIPS FOR EFFICIENT QLIKVIEW DEVELOPMENT

- **Use variables:** Define constants like sales target in the script: `LET vTarget = 10000;`. Then use `$(vTarget)` in expressions.
- **Optimize data model:** Avoid synthetic keys by properly linking tables using a “concatenate” load or renaming fields. Use the Table Viewer (Tools → Table Viewer) to inspect relationships.
- **Comment your script:** Use `/* */` or `//` to document your logic.
- **Test incrementally:** Load small samples first, then scale up.
- **Learn keyboard shortcuts:** Ctrl+R reloads data, Ctrl+E opens script editor, Ctrl+S saves, F2 toggles design mode.

CONCLUSION

This **QlikView step by step tutorial** has equipped you with the fundamental skills to start building your own analytical applications. From installing the software and loading data to crafting interactive charts and using expressions, you now have a practical foundation. The true power of QlikView lies in its associative engine—the ability to explore data freely without being constrained by predefined