

HansaWorld University

**HansaWorld SmartView
by QlikView
Training Material**

**HansaWorld Ltd.
October 2009
Version 6.1**

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OVERVIEW

This document describes the QlikView Business Intelligence platform and the installation and deployment of the "SmartView Sales Template by HansaWorld powered by QlikView".

The document is for HansaWorld Internal use only and should not be distributed to customers.

INTRODUCTIONS AND TERMINOLOGY

HansaWorld Enterprise

HansaWorld Enterprise is an integrated accounting, CRM and ERP tool for working with Purchase and Sales Order Processing, Stock Control and the Sales, Purchase and Nominal Ledgers. HansaWorld allows you to keep track of contact with Customers, organize mail shots and for planning activities of all kinds.

QlikView

Business Intelligence Platform (QlikView Server v.9.0)

QlikView is a Business Intelligence platform that allows you to design and build complex business reporting templates using different data sources and reporting techniques. QlikView provide data analysis across multiple departments, teams, and roles. It allows you to easily select and review data using a simple and intuitive interface.

Business Intelligence Tools (QV Client, AJAX client, Java client)

QlikView provides several options to analyse the data such as the stand alone client application or distributed pdf documents.

The HansaWorld SmartView template is designed to work with the QlikView Standalone client for Windows, AJAX and JAVA client for web browser.

There are several restrictions and interface differences depending on the chosen end user client. The SmartView template is optimised to minimise and eliminate these differences as much as possible.

HansaWorld Enterprise integration with QlikView

HansaWorld Enterprise is integrated with QlikView using the "SmartView BI template by HansaWorld and powered by QlikView".

The ready-made SmartView Sales template is pre-setup to work with a standard HansaWorld installation where the data extraction customisation is installed.

HANSAWORLD ENTERPRISE

Installation and setup of the data loading mechanism from HansaWorld Enterprise

The Predefined Sales template is set up to load data into Qlikview using dynamic calls for data directly from the HansaWorld database. Alternatively Qlikview can be set up to load the data from flat XML files exported from HansaWorld system.

This is based on HansaWorld Enterprise v6.1

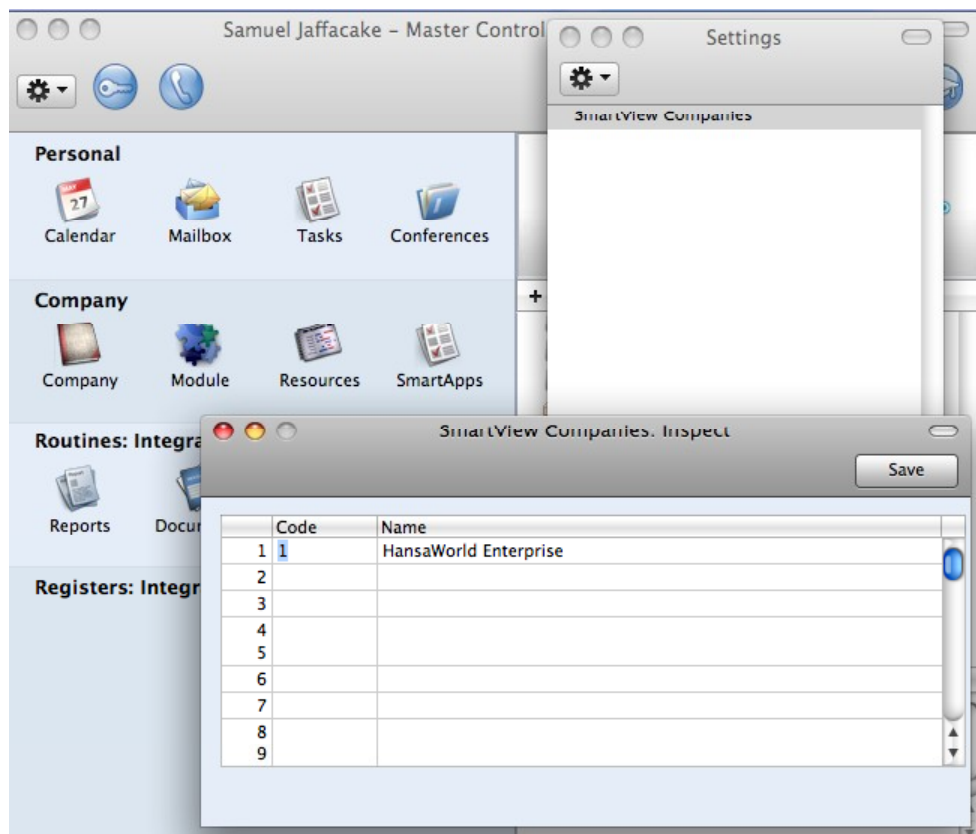
Dynamic load from the HansaWorld database using web calls

To use the dynamic data loading mechanism to the HansaWorld SmartView template, a company needs to be set up from which the data will be available in SmartView template.

It is possible to set up one or several companies to be available for data analysis in QlikView.

To define available companies proceed to **Module>>Integration>>Settings>>SmartView Companies**

Specify the company number and company name as it is set up in **Companies** register in **Systems** module.



Once the **SmartView Companies** setting is filled and saved, the QlikView script will be able to access and load data from HansaWorld using direct web calls.

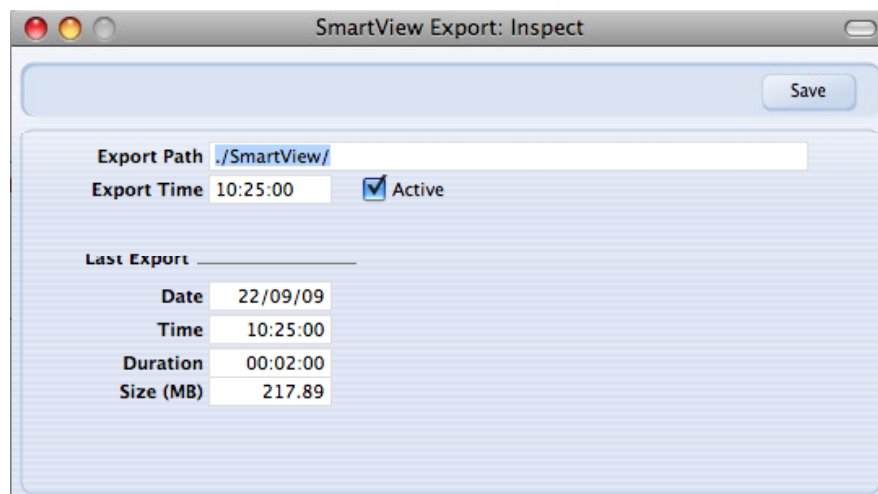
Please note that special HAL customisation is required to support web calls.

Data loading from the HansaWorld database using scheduled data exports

To use flat XML files exported from HansaWorld as a data source for SmartView template, export parameters must be specified in **Module>>Integration>>Settings>>SmartView Export**.

Specify the **Export path** and **Export time** in the setting. The absolute or relative path can be used as the export destination. There is no default value for the export destination and the export will fail if no or the wrong path is specified.

Tick the **Active** checkbox to enable the export functionality.



The **Last Export** section in SmartView Export setting window displays information about the last successful export including the date, start time, duration and total size of output XML files.

Please note that special HAL customisation is required to support web calls.

Advantages and disadvantages of data loading mechanisms

There are advantages and disadvantages for both data loading mechanisms.

Dynamic data load using web calls allows scheduling of continuous data reloads on the QlikView server and therefore the SmartView template could be updated several times per day, thereby displaying all the latest information from HansaWorld database.

The disadvantage for dynamic data reload is speed. When the QlikView server is not installed on the same server as the HansaWorld server, or not on the same network subnet, then the reload time is significantly increased. For larger databases this can even cause the reload process to timeout.

Data reload from flat XML files exported from HansaWorld is significantly faster. The data export itself from HansaWorld takes less time and processing resources. Flat XML files works very effectively with very large databases and over the different network subnets.

The biggest disadvantage of the file based system is the timing of data loading into SmartView template i.e data is updated only when new xml export files are generated.

Before choosing a data loading method evaluate the customer database size and growth of the data volume vs. their need for continuous data loading.

QLIKVIEW

Licensing Overview

OEM License

The Current OEM Licensing agreement between HansaWorld and QlikView allows for the use of HansaWorld Enterprise as a data source for Business Intelligence templates. The OEM License agreement does not allow the use other data sources for Business Intelligence templates.

License types

In QlikView Server installations a Server access license will be installed on the server that allows end users to use the license from the server. It does not require installation of a licence on client workstation. SmartView templates can be opened using any of the available QlikView clients.

When the customer chooses to use a Developer license with enhanced functionality to modify the SmartView templates, then a separate license file is issued and needs to be deployed on the local client installation.

Server vs. Client License

There are two types of licenses: Server CAL and QlikView Developer license.

- The Server CAL (Client Access License) is deployed on the QlikView server and allows any user to connect to the server to access the templates either using Web browser or the QlikView Windows Client.
- The QlikView Developer license allows to the customer to open and modify the SmartView template using the local QlikView Windows Client and also to create new templates. The license must be deployed on local installation and once installed will not use the User Cal from the server.

Installation and Configuration of QlikView Server

Prerequisites

In order to successfully install and run the QlikView Server/Publisher, the following basic requirements must be met by the system:

- 1 GHz (x86 processor) or 1.4 GHz (x64 processor). 2 GHz or faster, with several cores/processors recommended.
- QlikView Server will use the color settings of the Windows server where it runs when sending charts and other graphics to the client. For best results, the color palette on the Windows server should be set to at least 65,536 colors (16 bit).

- a mouse or an equivalent pointing device supported by Microsoft Windows.
- (optional) a DVD drive for DVD-based install media only.
- a hard disk with at least 450 MB of free disk space.
- 1 GB RAM minimum on x86 systems and 4GB minimum on X64 systems. The server's capacity to publish QlikView documents and the number of users who concurrently can connect to it are strongly related to the amount of RAM available.
- An http server for providing QlikView Java, Java Objects Client and AJAX ZFC solutions to end users (e.g. MS Internet Information Services (IIS) or the built-in QlikView WebServer). Microsoft IIS or the built-in web server is required when using tunneling, external authentication or NT security with Java clients and whenever the AJAX Zero-Footprint client is used.
- TCP/IP Network.
- Microsoft .NET 3.5.

Actual requirements will vary, based on system configurations. It is recommended that you work with your local QlikView representative to configure an appropriate hardware platform for your QlikView Server/Publisher requirements.

- Microsoft Internet Explorer 7 or Firefox 3 to use QlikView Management Console.

QlikView Server is supported on following Operating Systems:

Microsoft® Windows Server 2003™ including x64 Edition

Microsoft® Windows Server 2008™ including x64 Edition

Microsoft® Windows XP™ including x64 Edition*

Microsoft® Windows Vista™ including x64 Edition*

Microsoft® Windows 7 including x64 Edition*

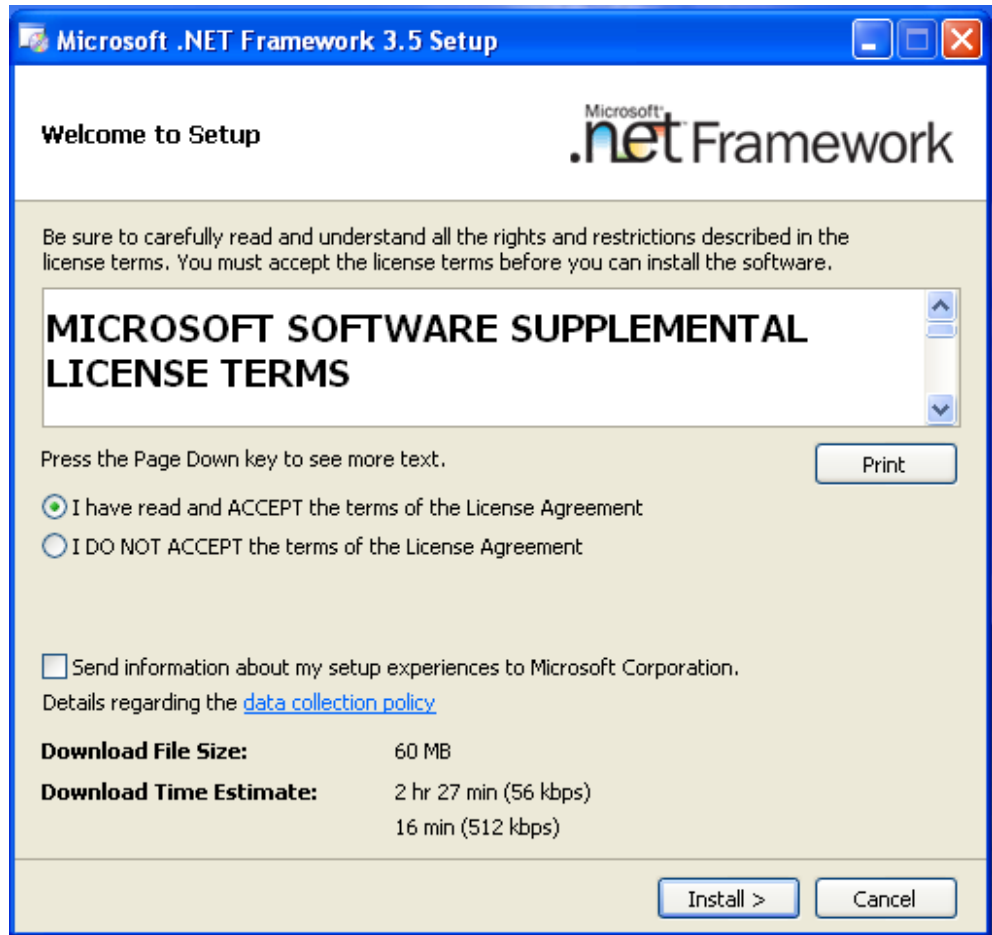
*Recommended for development and testing purposes only.

Installation of the QlikView Server v.9.0

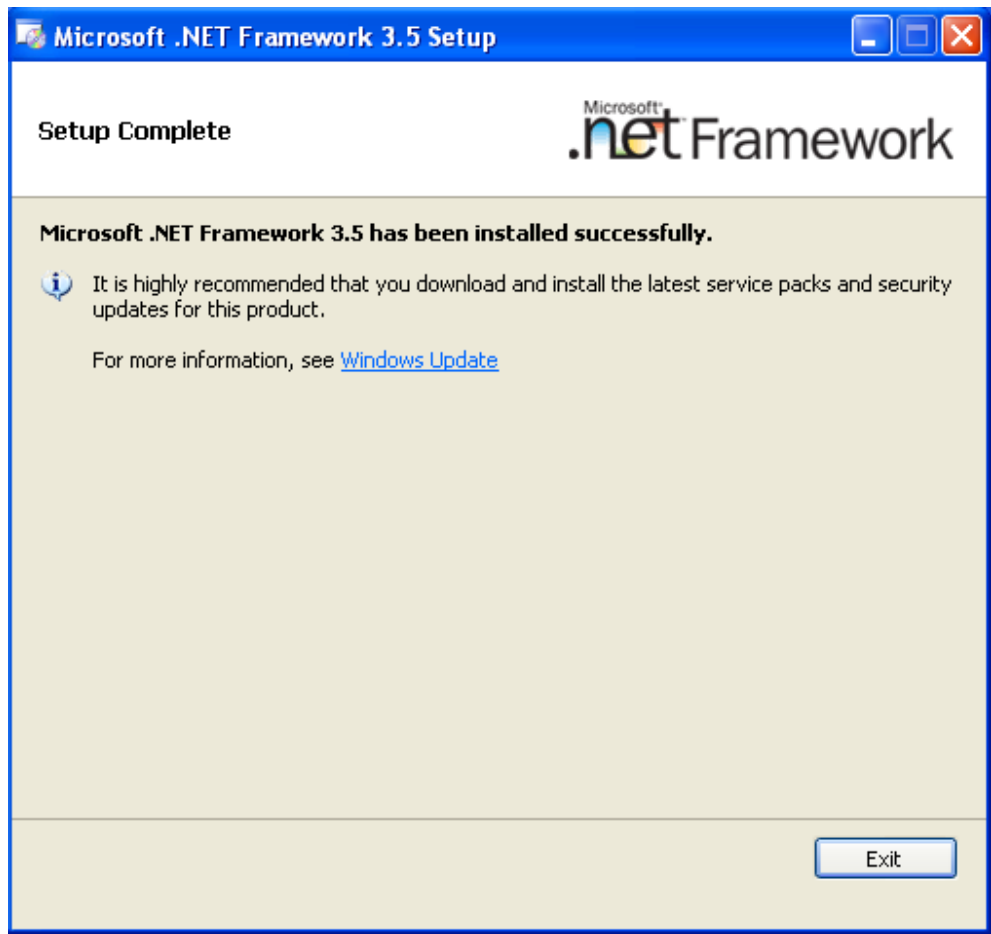
The installation package can be downloaded from <http://www.qlikview.com>. You must be registered as a QlikCommunity member to access the Downloads section of the page.

To start installation double click **QvsRedist.exe** file from your installation media.

If the .Net Framework version 3.5 is not installed on the Server machine, then installation wizard will automatically start the installation of the .Net 3.5 Framework.



Click the radio button "I have read and ACCEPT the terms of the License Agreement" and click "Install".



After .Net Framework 3.5 is successfully installed click th "Exit" button and restart the operating system to continue with the installation.

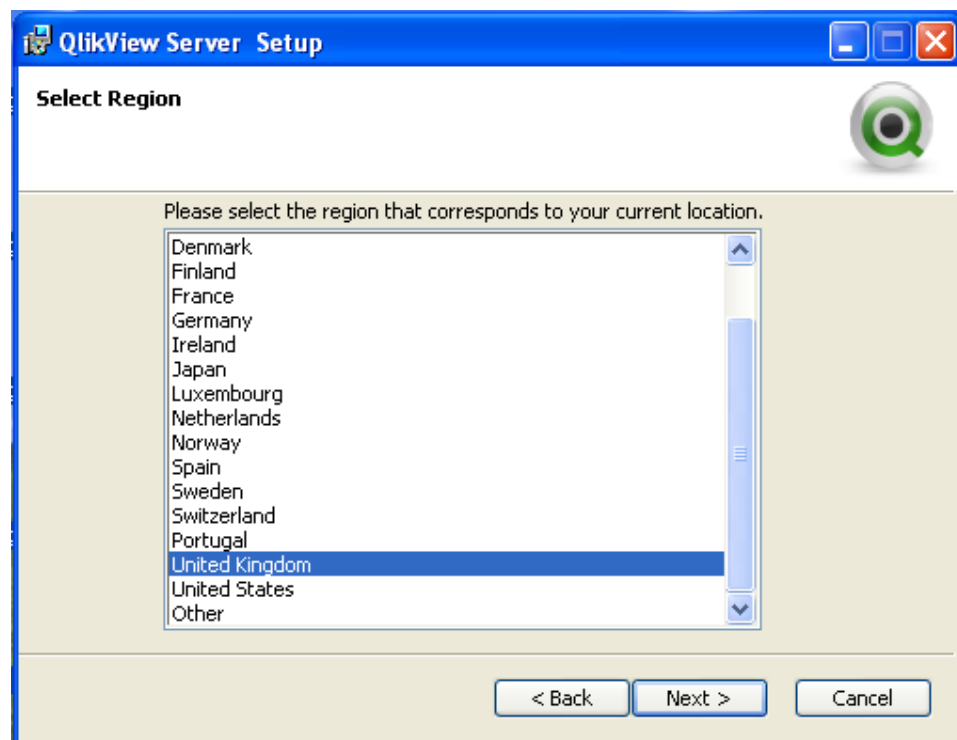
Installation of the QlikView Server

To start the QlikView Server installation execute **QvsRedist.exe** from the installation media.

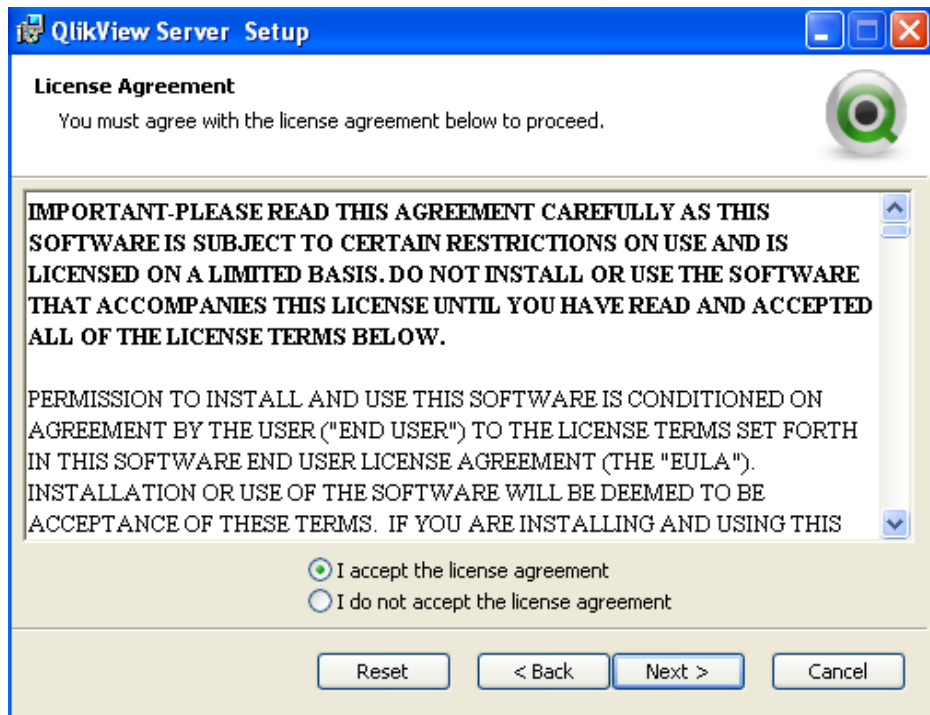
Click **Next** to continue with the QlikView Server setup



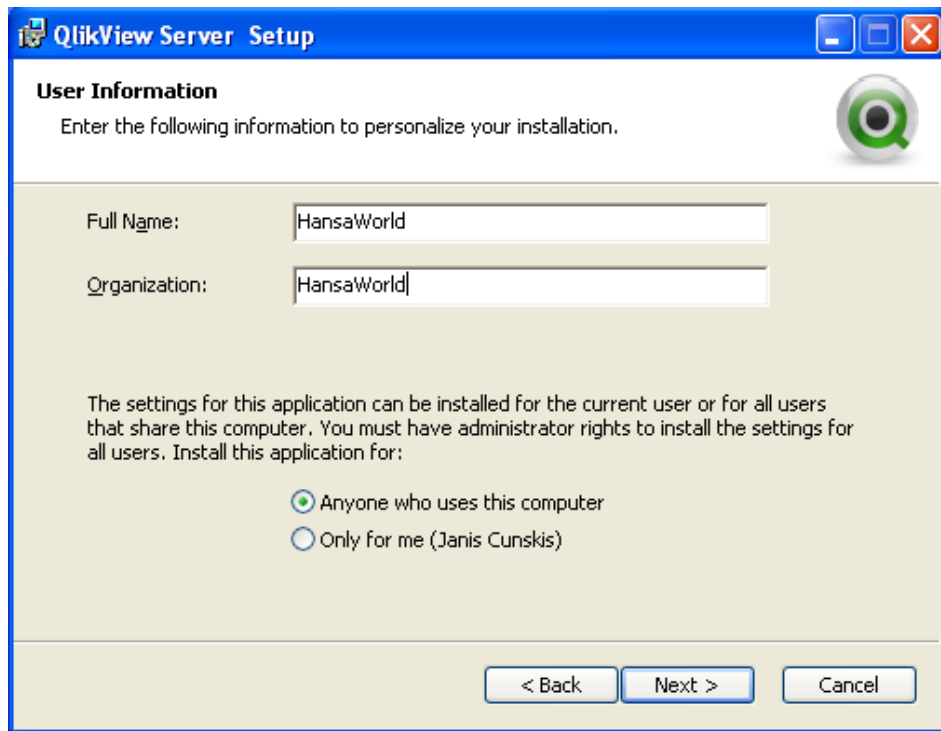
Select the region for the local location of the server



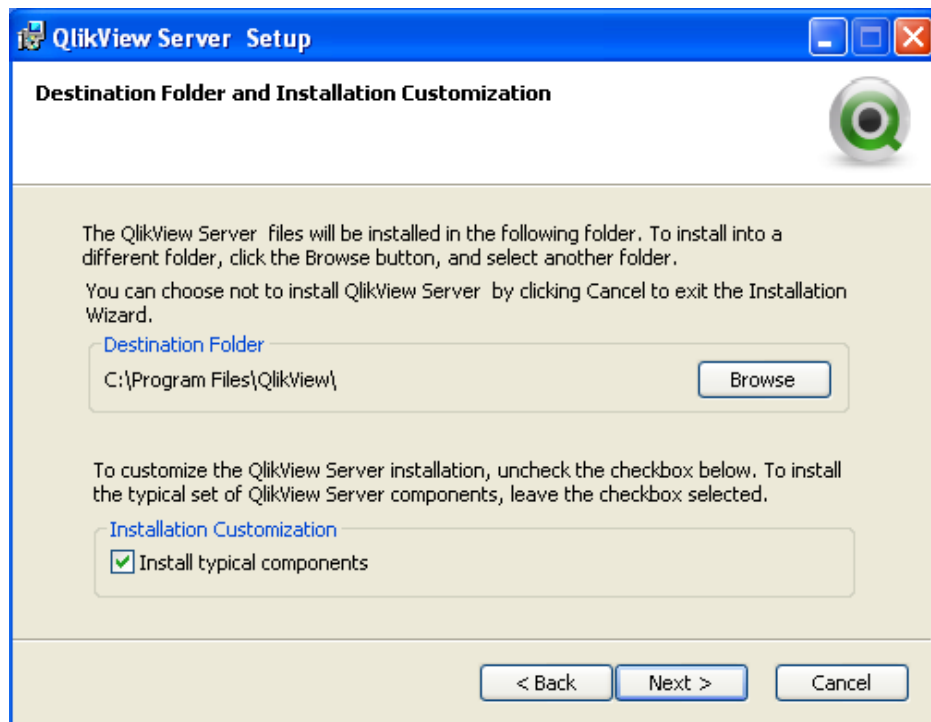
Read the license agreement, and continue by selecting I accept the license agreement, and then click Next.



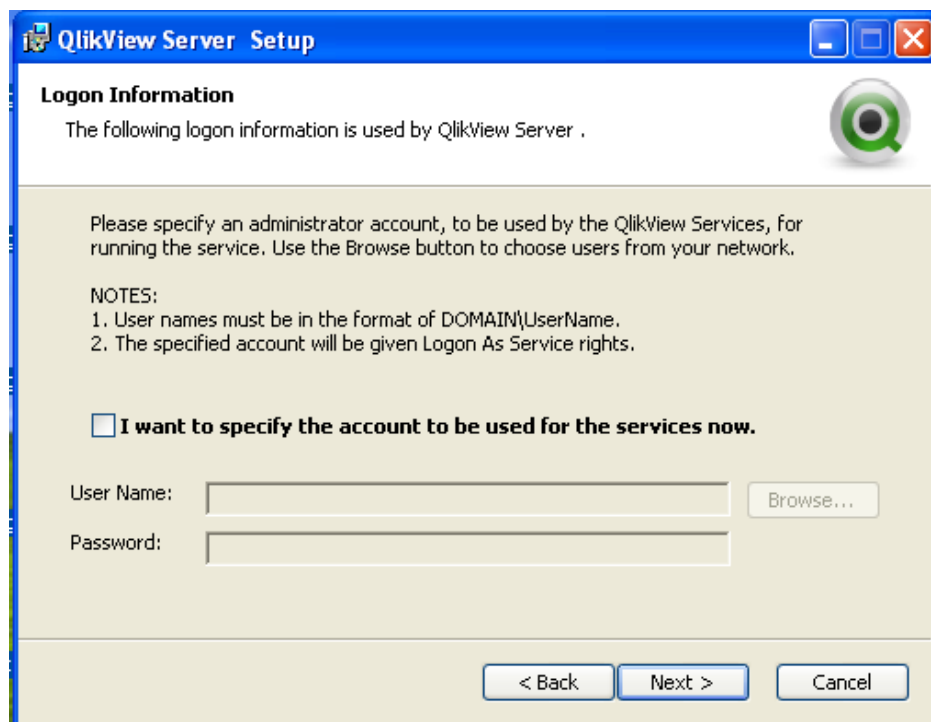
Enter the user information for QlikView Server.



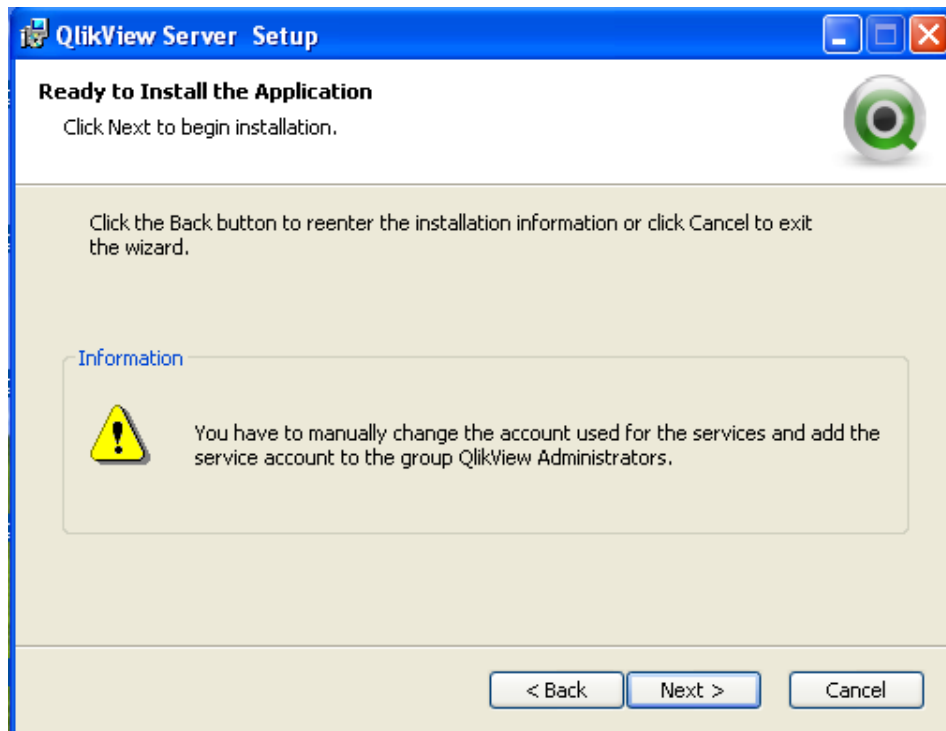
All files will be installed within the specified folder location. If you would like to change the root folder location of the installed files, click Browse to specify the preferred location. For full functionality, including the SDK and documents, you must unmark the Install Typical Components checkbox and choose to install the SDK. Continue by clicking Next.



Enter the user credentials for the administrator level account that will be used to run the services required for the QlikView Server. If you leave User Name and Password fields blank QlikView will be installed under the local system account.



Click **Next** to install the application.



Once the Installation is complete, click **Finish**.



Configuration of the QlikView Server

After successfully installing the QlikView Server/Publisher, you must complete the following steps to activate it:

- Start the services
- Register the QlikView Server
- Configure the Document repository
- Configure Security and access control

Starting the service

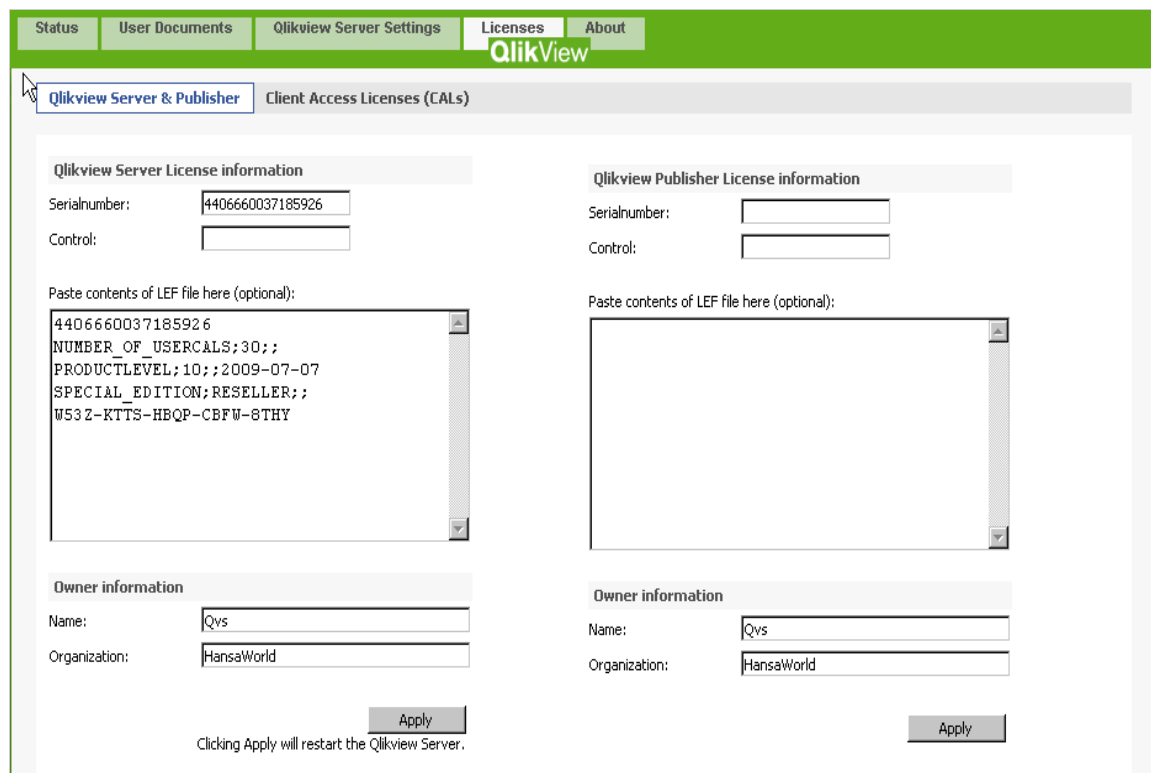
Once the QlikView Server/Publisher has been installed as a Windows service, it can be started. If the QlikView Server is set for automatic startup, rebooting the operating system will start the QlikView Server service. To manually start the service, go to the Windows Computer Management, Services.

Registering QlikView Server instance

Registration authenticates your copy of the QlikView Server software and allows it to be run on your computer. In order to register, you must have a valid Serial Number and Control Number issued to you by your vendor. If you do not have both a Serial Number and a Control Number, please contact your vendor.

In the QlikView Management Console (License), enter the Serial Number and Control Number assigned to your copy of QlikView Server/Publisher. You should also enter your name and organization in the fields provided.

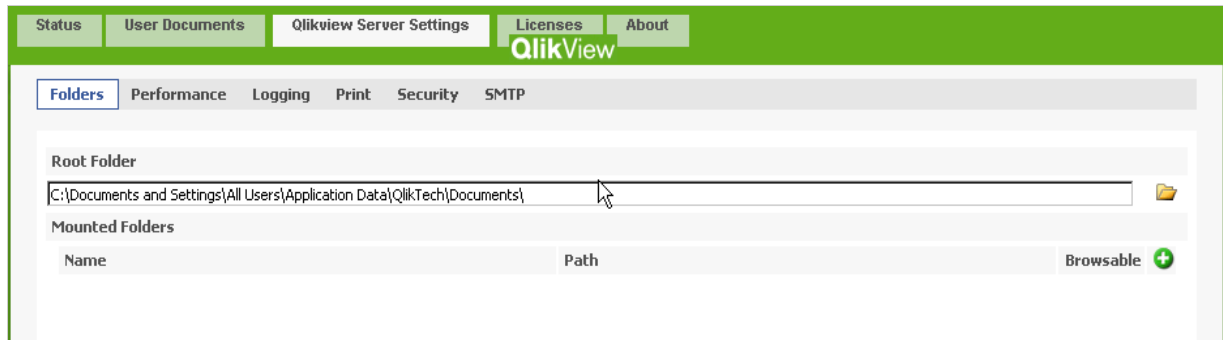
Configuration of Document Repository



The screenshot shows the QlikView Management Console interface for configuring licenses. The top navigation bar includes 'Status', 'User Documents', 'Qlikview Server Settings', 'Licenses', and 'About'. The main content area is titled 'QlikView Server & Publisher' and 'Client Access Licenses (CALs)'. It is divided into two columns for 'Qlikview Server License information' and 'Qlikview Publisher License information'. Each column contains input fields for 'Serialnumber:' and 'Control:', a text area for 'Paste contents of LEF file here (optional):', and 'Owner information' fields for 'Name:' and 'Organization:'. The 'Server' section has the serial number '4406660037185926' and the organization 'HansaWorld'. The 'Publisher' section is empty. There are 'Apply' buttons at the bottom of each section, with a note: 'Clicking Apply will restart the Qlikview Server.'

By default QlikView Server installation creates a Document Repository under **C:\Documents and Settings\All Users\Application Data\QlikTech\Documents**

To change the Default Repository open QlikView Management Console and select appropriate folder in Folders tab under QlikView Server Settings menu.



It is possible to add several other folders using this screen if needed by adding Mounted Folders.

Configuring QlikView Server Security and Access control

To configure the QlikView Server to use DMS (Document Metadata Service) security model, Change the setting in the QlikView Management Console Security tab under the QlikView Server Settings menu. DMS authentication method allows you to define access for each user for each document.

Setting up QlikView templates for web

To publish QlikView templates and make these accessible through a web browser or HansaWorld's Inline browser, the QlikView Server must be installed and configured to use DMS Security authorisation and the QlikView Web Service must be started.

The QlikView Web Service is installed together with a QlikView Server and in v.9.0 is a part of the integrated QlikView solution. The QlikView Web Service is installed as a separate Windows service. By default it is running on port 80 therefore before starting it make sure no other services or applications are using this port. (e.g. Microsoft IIS, Skype)

To publish QlikView templates on the web:

1. Place the QlikView template file in main Document Repository or Mounted Folder
2. Open the **QlikView Management Console**, choose **User Documents** in the menu
3. Highlight the template that should be published
4. Specify available **Accesspoint access methods** on the **Server Settings** tab on the right side

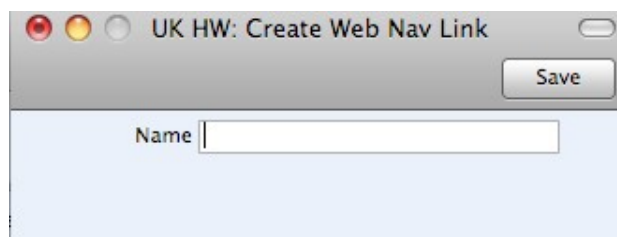
5. Add the users that are allowed to access the template on the **Authorization** tab

Opening the SmartView template in the HansaWorld Enterprise Inline browser

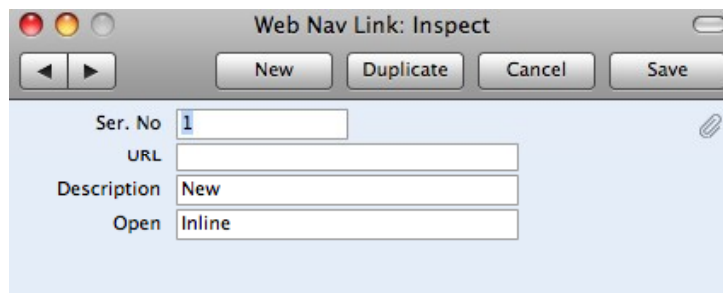
To be able to open the SmartView template in HansaWorld inline browser you need to create a new Web Link in Personal desktop using HAnsaWorld Cocoa client for Apple.

To do so click on Add icon on the top left corner of your **Personal desktop** and choose **Create Web Link** from dropdown menu.

Specify the name of the Web Link and Save the link



Highlight the newly created Web Link on your personal desktop and choose **Edit Web Link** option from dropdown menu of your Personal desktop. Specify the URL path to the SmartView template and the Description for your Web Link. Use the **Inline** option for opening type of the Web link.



Double clicking on the link in your Personal desktop will open the SmartView template in HansaWorld Inline browser window.

The Difference between QlikView Server v.8.5 and v.9.0

Test Server license.

A special licence type has been created for use with the QlikView Server (QVS) for test purposes. A QVS running with such a license will have the full feature set and performance, but the word "Test" will be superimposed on all charts and added to all object captions. See the QlikView Server Reference Manual for more information.

QVS migration mode

A setting has been added in the QVS Management Console allowing you to temporarily run two clusters of QVSs, sharing the same license during migration between versions.

QlikView Personal Edition

With QlikView 9.0, everyone is free to create QlikView documents for personal use. Hence, a normal QlikView desktop can be run without purchasing a licence. There are no limitations, except that it is not possible to open QlikView documents created by other users. Nor is it possible to import an entire layout from an xml file.

Evaluation

The 15-day evaluation of QlikView Developer has been removed.

QlikView Server with integrated reload QlikView Server now comes with integrated reload scheduling capabilities. The product previously known as Publisher Standard Edition has been discontinued, while the capabilities it offered are part of the standard QlikView Server install package.

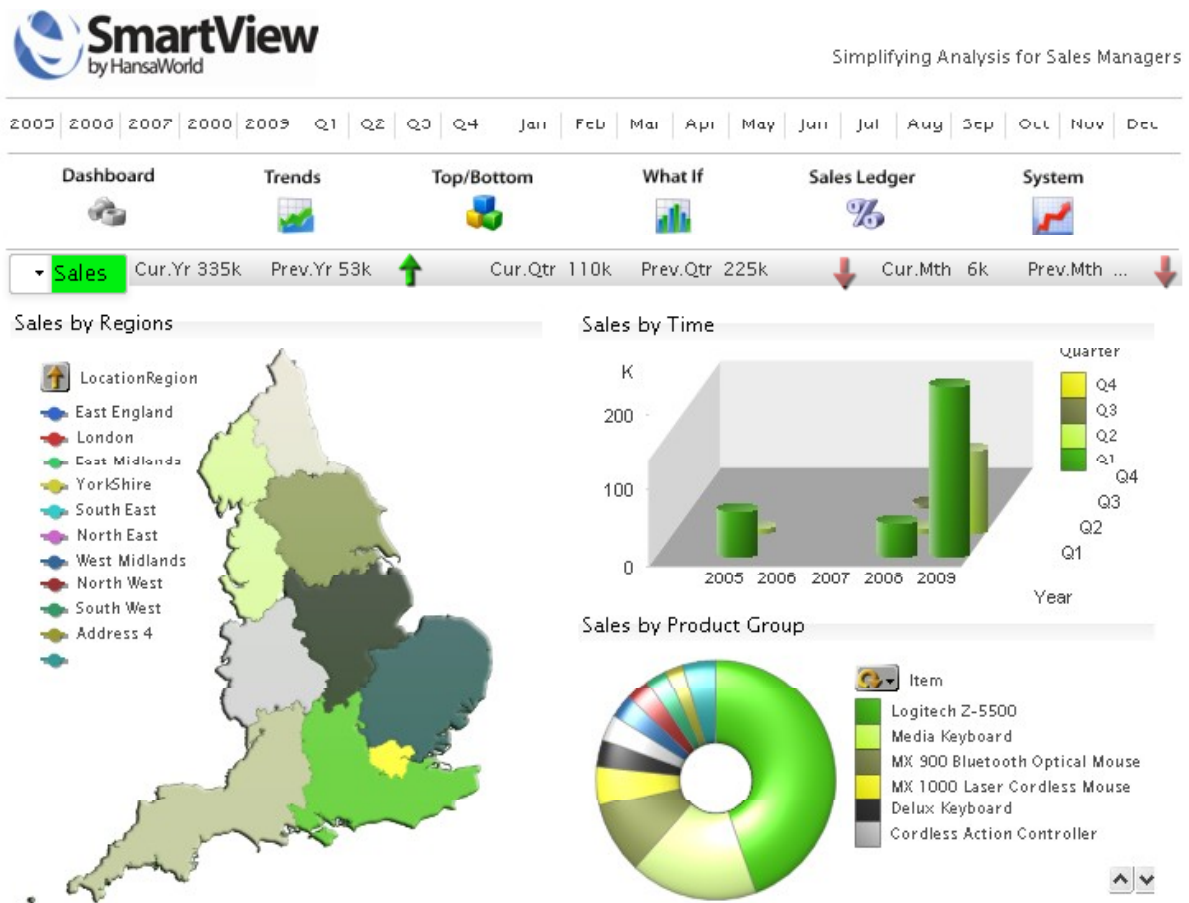
QlikView Enterprise Management Console (QEMC). The QEMC gives full access to all possible settings for QlikView Server and the Publisher module. It also lets you control multiple instances of QlikView Server and multiple Publisher execution instances from a single management console

Document default scheduling for reload. When designing a QlikView document it is now possible to define a default reload schedule in the **Document Properties** dialog

Pre-generation of AJAX pages no longer needed. The need to pre-generate AJAX pages for QlikView Server has been removed. QlikView Server will display documents in AJAX when called upon, just like it has always done with the Java and plug-in clients.

SMARTVIEW SALES TEMPLATE BY HANSAWORLD

Standard Sales template overview



The Date Range within Date selection field at the top of the SmartView template represents all available transaction dates loaded from HansaWorld database.

The Date selection works for whole template and once selected, will be filter the data to be within the chosen range.

Clicking on any selection criteria is automatically stored for the session and all related data in the template is filtered using this criteria. To clear all selection filters click on **Home** link at the end of the page.

Dashboard page explained

The Dashboard displays graphs, key measures and trends, for the most important dimensions of your business - salesperson, item group, item and customer. Use selection criteria to switch between revenue, cost and quantities in the graphs, and make selections for any year, quarter or month.

Trends page explained

Trends worksheet on SmartView Sales template Provides:

- Monthly sales breakdown comparing the current period with the prior period
- Seasonality chart
- Sales/costs/profit current period against prior period, and trend, for Salesperson, Item Group, Item and Customer

Top/Bottom page explained

This worksheet is particularly effective for Pareto analysis - when you need to see the top or bottom performing salespeople, item groups, items or customers. Use the slider to select the number of top or bottom performers to display.

What If.. page explained

This worksheet offers the ideal tool for creating top-level strategic budgets. You start from a table of actual results based on any date range of your choosing. These will be broken down by salesperson, item group, item or customer. You then use the sliders for the percentage change in sales, costs and quantities, to derive a forecast.

Sales Ledger page explained

Use the Sales Ledger worksheet to analyse the content of your open ledger balance. Graphs display the ledger breakdown by customer, age, specific invoice or invoice range or Sales man. The worksheet also displays invoice days that are overdue and average days overdue.

Deployment of the Standard Sales template

To deploy the standard SmartView Sales template to the QlikView server copy the template “.qvt” file to the document repository and set the template availability for the web client as described in earlier in this document.

Configuring the Standard template for data reload from HansaWorld Enterprise

You need to use the Qlikview Standalone Windows Client to edit the template script to point to the HansaWorld server.

Open the template and click on **Edit Script** option in **File** dropdown menu. Go to the main tab, and change the following line:

SET IP='localhost:1080!'; to point to the HW server IP and WEB port if you use dynamic data reload mechanism. Replace *localhost* with your server's IP address and port with your HansaWorld server web port.

SET IP='path to the export folder'; if you use flat xml files for data reload. You also need to change the HAL function and the parameter in each tab of the QlikView script to the appropriate xml file name. (e.g. \$(IP\PersonList.xml)

You can run the data reload script from the QlikView Standalone Client to test the loading mechanism and debug the script if needed.

Save the changes and close the template.

Modification of data loading script

Currently the data reload is defined using HAL customisation that outputs the data in XML format.

Data structure can be adjusted and modified based on specific needs or requirements.

A separate procedure is used in HAL to output each register and it generates a separate XML file for each register or block. To add a new field to a register that already gets exported you only need to add new xml tags and field names for the register structure. See an example for register export below:

```

procedure QlikViewXMLDepartment(string compcode)

begin
    record      DepVc      Depr;
    while      (LoopMain(Depr,1,true))      begin
        WebOutTagOpen("<Dep>");
        WebOutTagOpen("<CompCode>");
        WebOutStringFormat(compcode);
    WebOutTagClose("</CompCode>");
        WebOutTagOpen("<DepCode>");
        WebOutStringFormat(QlikviewXmlString(Depr.Code));
        WebOutTagClose("</DepCode>");
        WebOutTagOpen("<DepName>");
        if      (nonblank(Depr.Description))      then      begin
    WebOutStringFormat(QlikviewXmlString(Depr.Description));
        end;
        WebOutTagClose("</DepName>");
        WebOutTagClose("</Dep>");
        WebOutNL;
        end;
    return;

end;

```

Modification of the Sales template script

The SmartView Sales template script is representing the QlikView data structure used to build graphical elements in the template.

SmartView template uses 4 main Key Performance Indicators in the Sales template:

- Sales
- Profit
- Cost
- Quantity

These Key Performance Indicators are defined and more KPI's can be added in SmartView script if necessary using the **Inline** tab.

All of the charts can represent information split by 5 main criteria:

- Salesman
- Item Group
- Item
- Customer
- Region

Other data dimensions are used to represent data based on time or on region.

To add a new dimension to some of the structure element when it has been added to the QlikView HAL export structure you must add it to the script at the same place where it is added in the xml structure.

If *LocationCity* is a new field added to the XML output after LocationName tag, then in QlikView script it must be added as a new line after LocationName tag.

```
Location:
LOAD
    Autonumber (CompCode&LocationCode) as LocationKey,
    LocationName,
    LocationCity,
    LocationCounty as LocationRegion
FROM [http://$(IP)/WebQlikViewXml.hal?function=LocationList]
(XmlSimple, Table is [LocationList/Location]);
```
