



The QlikView Deployment Framework

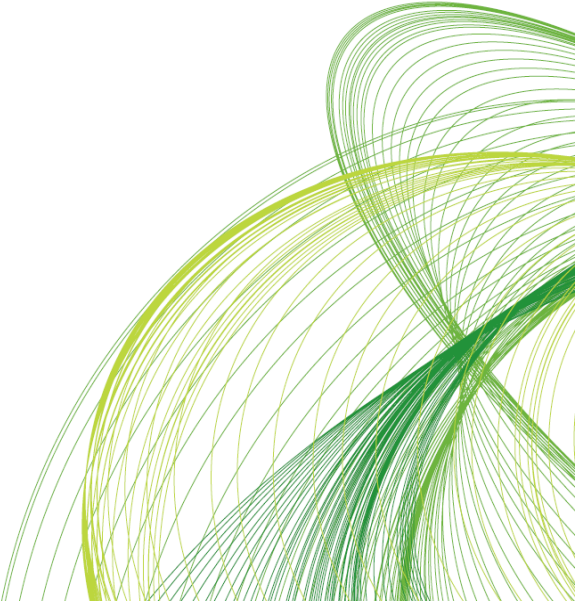
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Introduction

Managing a Business Intelligence (BI) deployment of any size is not trivial. Hardware, software, data and analytical applications, all require individual attention to ensure their stability and effectiveness. In order to ease maintenance, increase productivity and prevent an ‘out of control’ BI deployment, it is essential to implement standards and best practices as the groundwork for application governance.

The QlikView Deployment Framework (QDF) introduces a set of standards and best practices to QlikView. It’s a result of the combined experiences of our customers, partners and QlikView experts. Its main purpose is to address structure, organization and resource reusability within a QlikView environment, in turn reducing development time and increasing QlikView manageability.

Who is this document for?

This document will provide QlikView administrators, developers and partners with a technical overview of the QlikView Deployment Framework (QDF) – a set of best practices, libraries and tools that assist with the setup, development, and control of a QlikView environment. This document assumes there is a general understanding and working knowledge of the QlikView platform. (An introduction to QlikView is covered in greater detail in the standard QlikView materials. Please refer to the Appendix for more information.)

The QlikView Deployment Framework



The objective of a software framework is to make it faster and easier for developers to build and maintain applications. Frameworks typically 'bundle' together a collection of components in a simple to use form. For example, iOS developers may use the iOS Bluetooth Framework to accelerate the development of the

Bluetooth portions of their project.

The QlikView Deployment Framework builds upon the same light-weight application development model that makes creating QlikView analytics easy. Assembled with a set of standards, modules and QlikView tools, QDF introduces consistency, reuse and increased control across all QlikView applications.

The following is a list of standards defined by QDF:

Resource Container Architecture – A core file system structure composed of directory folders (referred to as 'containers') bound to the framework. It organizes, secures and stores projects and various objects used by QlikView applications and other QlikView deployments. By using QDF, all different document types and functions have their own respective place in their own folder structure and can be moved easily without effecting the operation of the QlikView application(s).

Container Map – An internal structure which maintains links between containers in order for objects (scripts, language settings, color schemes, variables, expressions, data connections, etc.) to be shared and reused by QlikView applications. The container map is managed with the Container Map Editor.

Container Naming Convention – A set of standard and recommended unique names used to name the file system folders according to application, department, project or resource. These can be modified as needed without affecting the functionality of the application.

Centralized Variables – A repository that stores system, user expressions, and other variables as user defined names. These names are referenced in QlikView projects as variables or can be called with the QDF sub-functions. Variables can be local to a project or global to the entire deployment. They are created and maintained with the Variable Editor.

Initiation Script – A pre-defined QlikView Load Script which initiates QDF, common modules and sets variables used within all QlikView applications that are bound to the framework.

Sub-Function Library – A set of modules used by QDF that contain callable sub-functions and practical examples. These can be easily included in QlikView applications. Examples include sub-functions for advanced calendars, document and data migration, data parsing, data exporting and linking resource containers and variables.

A Sample QDF Setup

Figure 2 illustrates a basic multi-project setup when using QDF. Shapes labeled **Project1** and **Project2** represent file directories in a defined QlikView document path. Application objects (*.qvw, *.qvs, *.qvd, images, scripts, etc.) reside in corresponding sub-folders for each project. The Shared Folders container stores and organizes common objects (data connections, custom load scripts, expressions, etc.) shared between projects. The Administration folder stores examples, tools and internal modules necessary for the setup and operation of QDF.

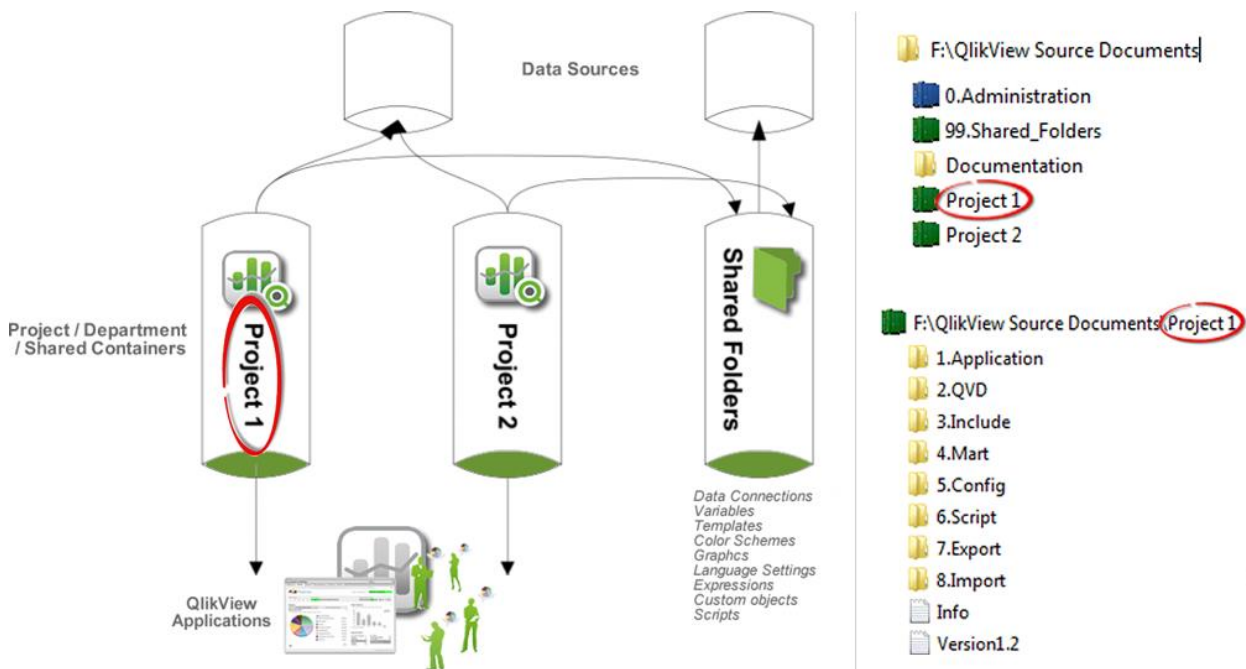


Fig. 1 – Simple resource container logical diagram (left), physical file system structures (right)

These structures are automatically created with the Container Map Editor and bound to the framework core. In order to streamline development, modifications and change management of QlikView applications, QDF containers are created as identical separate file structures that include the same base functionality. Because the containers are part of the underlying framework core, this allows them to be easily moved and/or renamed without changing any specific QlikView logic inside them.

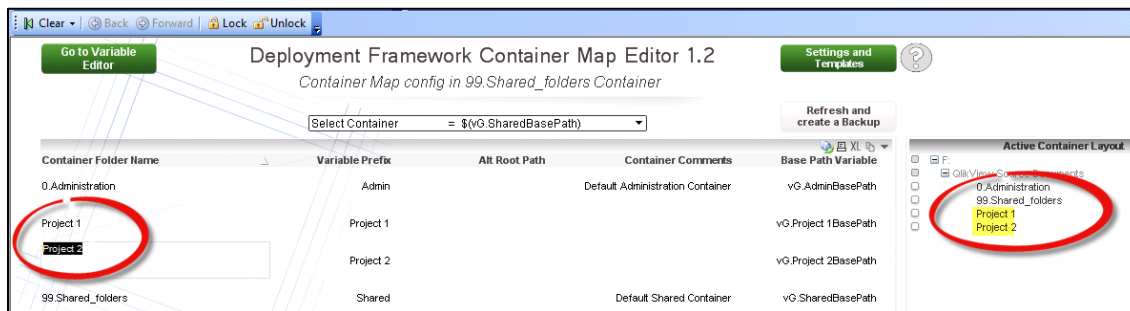


Fig. 2 – Container Map Editor – used to create resource containers

The Variable Editor is used to centrally manage and define system and user variables and expressions for a deployment or project. With this approach changes to QlikView applications that depend on those variables can be made very easily and in one place. (Anything that uses QlikView syntax can be defined as a variable, allowing a broader range of user defined properties in QlikView applications.)

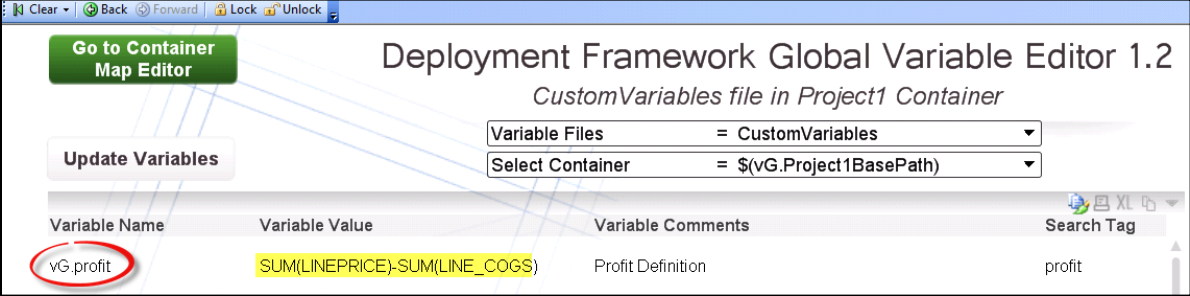


Fig. 3 – QDF Variable Editor, defining vG.profit variable with expression SUM(LINEPRICE) – SUM(LINE_COGS)

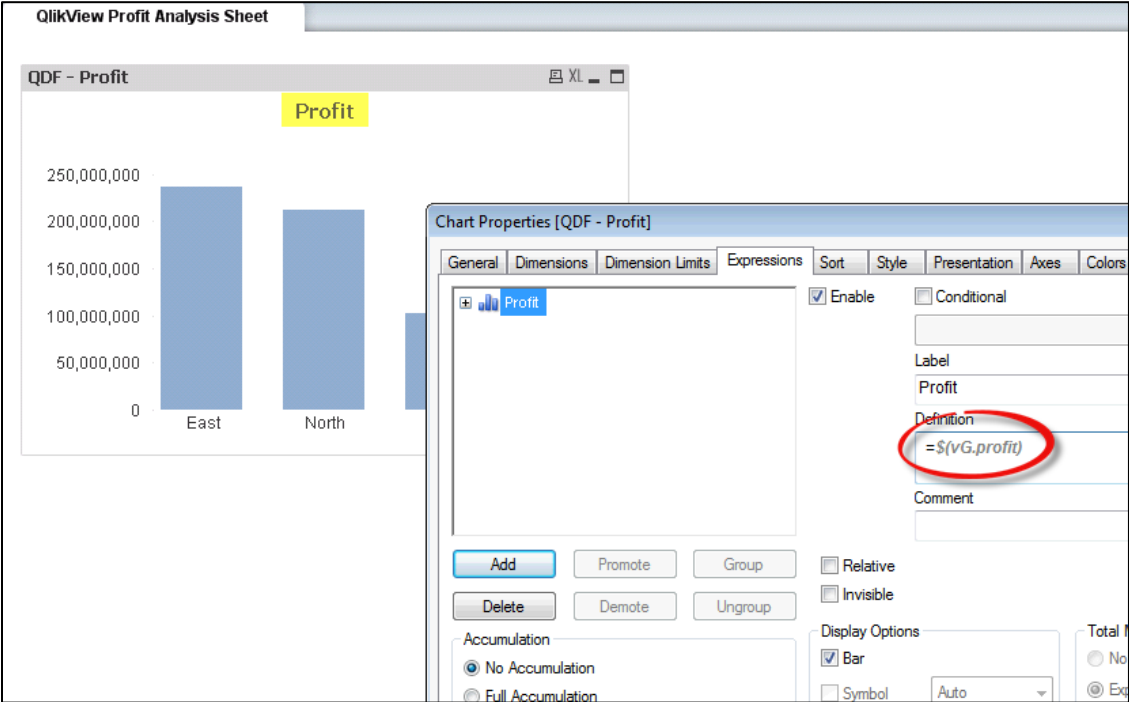


Fig. 4 – QlikView application (.qvw) using vG.profit variable as a metric in the chart object

What's included in the QlikView Deployment Framework?

The following is included in the QlikView Deployment package:

- **QlikView Deployment Framework Deploy Tool**
Installation utility to setup the initial administration containers, libraries, tools and samples in the desired QlikView root Document folder.
- **Deployment Framework Tools**
Container Map Editor, Variable Editor, Setting and Templates. 3 QlikView based utilities that manage the setup of containers, variables and templates used in QDF deployments.

The following documentation:

- **Getting Started Guide**
Provides an overall understanding of the framework basics and how to start installing and developing.
- **Operations Guide**
Guide for QlikView administrators that are responsible for maintaining the platform and managing security, tasks and containers.
- **Development Guide**
Guide for developers to learn how to work with QDF in an efficient way. It includes content on naming conventions, data modeling, optimization and other guide lines regarding development and exercises.
- **Deployment Guide**
Guide for project manager and platform owners to manage the QlikView development, test, acceptance, production process.
- **Deployment Framework Core Documentation**
Detailed documentation regarding the content and design of the QlikView Deployment Framework Core (folder structure, script and sub function logic).
- **QlikView Deployment Framework Education Exercises**
Several documented QlikView examples and exercises to assist in learning the power of QDF.

Where can I get it?

The QlikView Deployment Framework is available to members of the QlikCommunity under the QlikView Deployment Framework Group. Please note that the QlikView Deployment Framework is not a QlikTech product and is not supported by QlikTech customer support. It is supported by community members of this group. Members include QlikTech employees, partners, customers and enthusiasts. Members may start a discussion, report a problem and receive the latest updates on the QDF software and documentation. After membership is granted, navigate to the Content tab to download the QDF Deploy Tool and review the QDF documentation to get started.

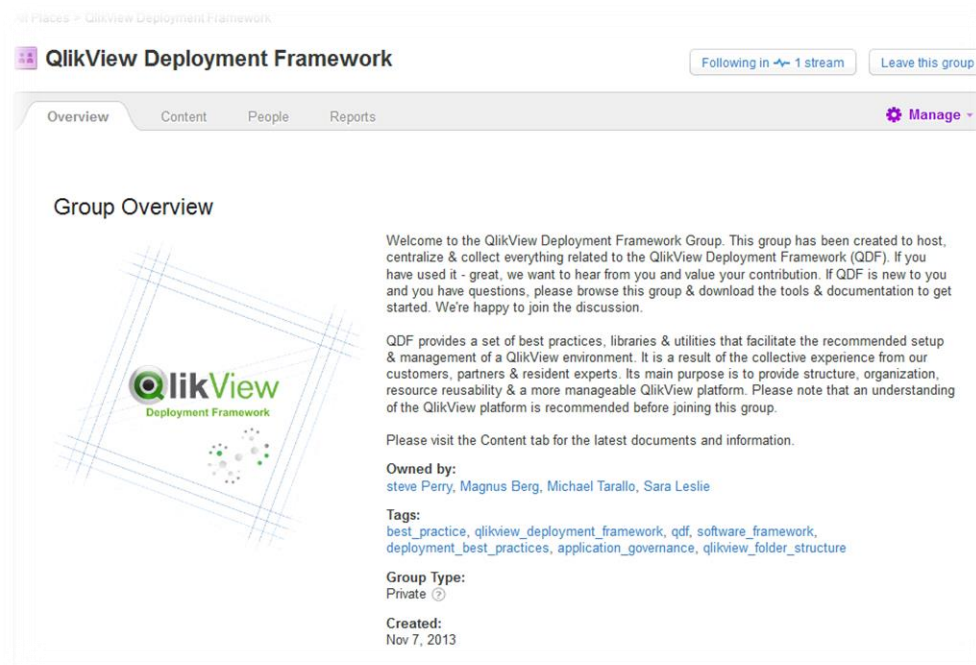


Fig. 5 – QlikView Deployment Framework Group on the QlikCommunity

Summary

There isn't 'one' answer for best practices, but rather a collection of proven results from customers, partners and QlikView experts that provide enterprise scale, efficiency and governance for QlikView implementations. The QlikView Deployment Framework is the result of this collaboration. The value an organization realizes from the QlikView Deployment Framework will vary depending on the size, complexity and customizations of the deployment and its applications. Large and Enterprise QlikView deployments will greatly benefit from QDF due to ever-changing business requirements, data additions and organizational growth. It is recommended that smaller deployments investigate QDF but it may not be necessary to implement. Generally speaking, QDF will shorten development time for each new QlikView deployment, allow easier maintenance and reuse of resources and provide an overall application governance model.

Appendix

QlikView Deployment Framework Group

<http://community.qlikview.com/groups/qlikview-deployment-framework>

QlikView Development and Deployment

<http://www.qlikview.com/us/~-/media/Files/resource-library/global-us/direct/datasheets/DS-Technical-Brief-Dev-and-Deploy-EN.ashx>

QlikView Reference Manual – (installed with QlikView Server)

C:\ProgramData\QlikTech\QlikView Documentation\Reference Manual.pdf

Documentation available from the QlikView Management Console (QMC) Help

- Understanding QlikView Documents
http://<hostname>:4780/QMCHelp/Content/QMC_Documents.htm
- Source Documents
http://<hostname>:4780/QMCHelp/Content/QMC_Documents_SourceDocuments.htm
- User Documents
http://<hostname>:4780/QMCHelp/Content/QMC_Documents_UserDocuments.htm
- Understanding QlikView Document Folders
http://<hostname>:4780/QMCHelp/Content/QMC_System_Setup_QlikViewServers_Folders.htm#kanchor263