

WHAT'S NEW IN QLIKVIEW 11

QlikView 11 takes Business Discovery to a whole new level by enabling users to more easily share information with coworkers, supporting larger enterprise deployments through enhanced manageability, and delivering an enhanced mobile experience.

With QlikView 11, business users can conduct searches and interact with dynamic dashboards and analytics from any device. They can ask and answer questions on their own and in groups and teams, forging new paths to insight and decision. They don't have to go back to an expert for help with a new query or report each time they come up with a new question. IT's role in Business Discovery is to enable self-service business intelligence (BI) by assembling and delivering relevant data while ensuring security, scalability, and performance.

SOCIAL BUSINESS DISCOVERY

Decision making is inherently a collaborative activity. Social Business Discovery helps organizations leverage peoples' shared insights in the decision-making process. With QlikView 11, business users can ask and answer streams of questions in formal or informal groups, in real time as well as asynchronously. Together, QlikView users collaborate to explore data and forge new paths to discovery and insight.

The new social Business Discovery capabilities in QlikView 11 build on existing collaboration functionality in QlikView, including collaboration objects, shared bookmarks, and Microsoft Office® integration.

SHARED SESSIONS BRING DECISION MAKERS TOGETHER

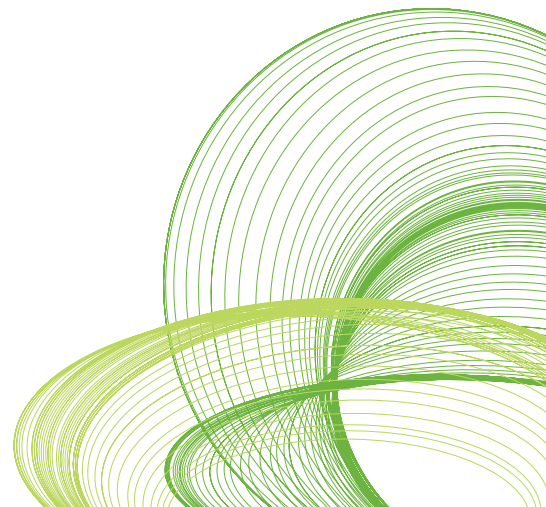
Shared sessions improve the quality of business decisions for geographically distributed and mobile users who work in teams to analyze information and make decisions. Users can jointly interact with a QlikView app in real time—sharing selections and testing scenarios together to better uncover insights and solve problems.

THE FIVE THEMES OF QLIKVIEW 11

QlikView 11 arms business users with multiple sources of insight: data, people, and place. Drive data-driven decision making with improvements in core QlikView. Nurture and encourage collaborative decision making with social Business Discovery. And bring insights from being out “on location” into your decision making with mobile Business Discovery.

With our investments in these five theme areas, we've take a major step forward in QlikView becoming the standard for Business Discovery:

- Social Business Discovery
- Comparative analysis
- Mobile Business Discovery
- Rapid analytic app platform
- Enterprise platform

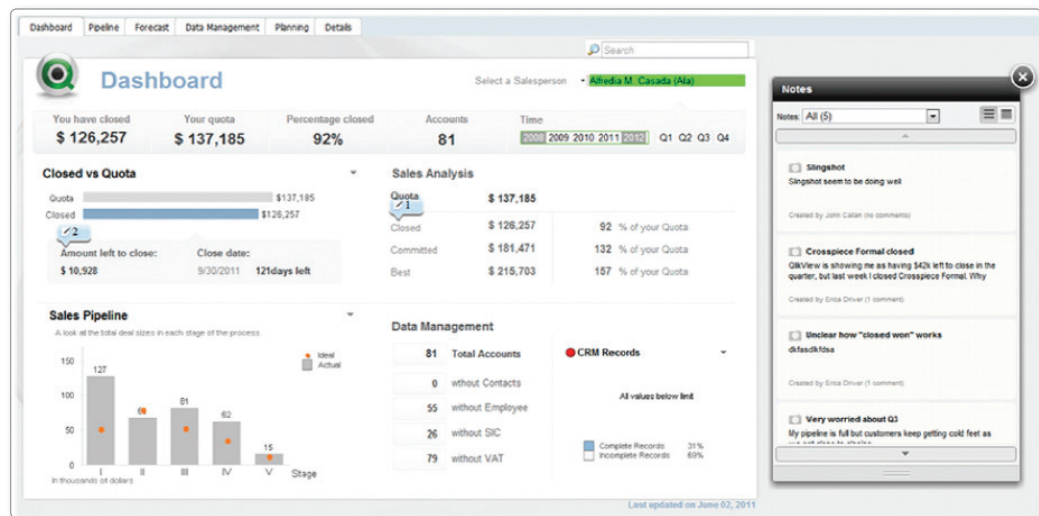


A user can invite others—even those who don't have a QlikView license—to join a session by distributing a one-time-use URL. Each participant interacts with the same QlikView app at the same time, for the duration of the session—without having to pass control from one to the other. This new capability is designed to augment a voice conversation. Collaborative sessions work on tablets and smart phones as well as desktop and laptop computers.

ANNOTATIONS IMPROVE CONTEXT AND ESTABLISH A RECORD OF HOW DECISIONS WERE MADE

With annotations, QlikView users can engage each other in discussions about QlikView content (see Figure 1). A user can create notes associated with any QlikView chart, graph, list box, or other object. Other users can then add commentary to create a threaded discussion. Users can capture snapshots of their selections and include them in the conversation so others can get back to the same place in the analysis when reviewing notes and comments. QlikView captures the state of the object (current selections), as well as who made each note and comment and when, for a lasting record of how a decision was made.

Figure 1: Annotations Improve Context and Establish a Record of How Decisions Were Made



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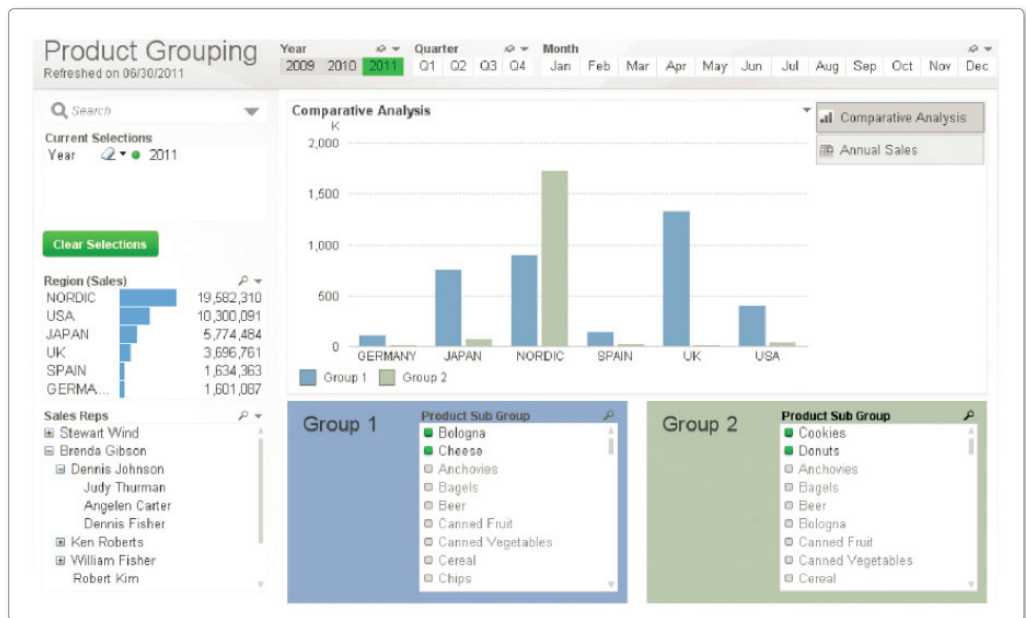
COMPARATIVE ANALYSIS

One of the core capabilities of QlikView is associative search. QlikView 11 takes our associative analytics to a whole new level.

PERFORM COMPARATIVE ANALYSIS USING ALTERNATE STATES

Business users can quickly gain new kinds of insight when analyzing information in QlikView, with new comparative analysis options. App developers can create multiple selection states in a QlikView app; they can create graphs, tables, or sheets based on different selection sets (see Figure 2). Business users can then compare multiple selections of data inside one app, chart, or object, to spot trends, outliers, or differences. This makes it easier for information workers to gain new insights into patterns of use, opportunities and threats, and relative performance.

Figure 2: Derive Deeper Insight With Comparative Analysis



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MOBILE BUSINESS DISCOVERY

With mobile Business Discovery, information workers can take advantage of being in a particular place at a particular time and generate insights “on location.” QlikView on mobile delivers full Business Discovery and the power of QlikView to mobile devices connected to a server—including the associative experience, interactive analysis, access to live data, and search. For Apple iPads, QlikView also provides offline views of data.

SUPPORT FOR BROWSERS ON MULTIPLE TABLET PLATFORMS IMPROVES USABILITY AND TIME TO VALUE

Organizations can get better usability and faster time to value from their QlikView investments by giving business users access to apps via native HTML5 browsers on Apple iPads and Android tablets. This means users get a seamless experience with their QlikView apps across tablets and desktop and laptop computers. They get the same functionality and interactivity, without waiting for developers to create new versions of the app for each specific mobile platform.

IMPROVED TOUCH INTERACTIVITY DELIVERS A MORE INTUITIVE USER EXPERIENCE

Organizations can get higher adoption of Business Discovery apps, and more value from their QlikView investments, by giving business users the ability to interact with mobile QlikView apps through a full set of native, intuitive, touch-based gestures.

BROWSER SUPPORT FOR SMARTPHONES OPTIMIZES SMALL TOUCH SCREENS

Information workers get improved usability by accessing QlikView on their Apple and Android smartphones using the device's native HTML5 browser. When QlikView Server detects the user is accessing an app from a smartphone, the server automatically displays the app on the device one object at a time (see Figure 3). For small-screen devices such as iPhone and Android Phone, single-object display mode delivers an intuitive user experience without the need for developers to rebuild apps.

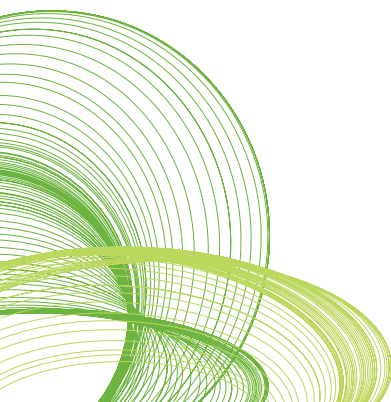


Figure 3: Browser-Based Support for Smartphones Makes Optimal Use of Small Touch Screens



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QLIKVIEW FOR IOS APP

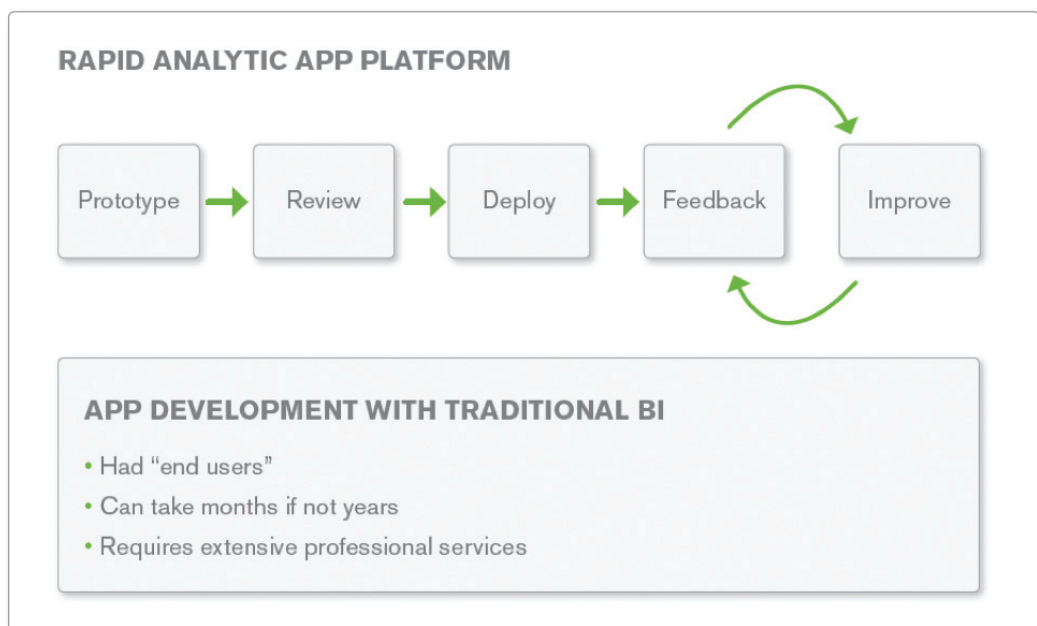
The QlikView for iOS iPad and iPhone app, available in the Apple App Store, complements QlikView on mobile browser-based access. The app provides a native user experience for QlikView AccessPoint, while extending and enhancing QlikView's universal HTML5 approach for analytics applications. Users get all the power and flexibility of QlikView Business Discovery when connected, and when using an iPad can take advantage of a new disconnected mode for offline access. And there are no additional costs, because the app is a free download and works with any QlikView 11 server license.

RAPID ANALYTIC APP PLATFORM

With Business Discovery, there are no “end users.” Instead, every user is the start of something, a node in the creation of insight. A rapid analytic app platform helps developers and business users contribute to the creation of analysis quickly and simply—without requiring extensive ongoing involvement from experts (see Figure 4).

QlikView 11 includes new and improved capabilities that meet the needs of QlikView app developers and third-party software developers—as well as the needs of business users who want to create their own analytic apps.

Figure 4: App Development in QlikView is Collaborative and Iterative



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EXTENSIBILITY

QlikView 11 includes new and improved capabilities to make it easier for developers to extend the platform.

Document Extensions Provide a Way to Work with External Analytic Data

Business users with the Ajax browser client gain a streamlined, effortless experience when working with data from external analytic systems. They can interact with data returned from other analytic systems directly within QlikView—without having to access the external system in a separate, disconnected mode. Like the extension objects we introduced in QlikView 10, document extensions can be reused in multiple QlikView apps.

Document extensions provide a way to execute custom code and interact with the QlikView Ajax/JavaScript API (application programming interface). For example, a developer might want to track usage patterns of a QlikView app with a document extension that interfaces with Google Analytics—without rendering a Google Analytics chart. Or, the developer may want to run code not tied to a specific object, or may want to customize the toolbar or tab row.

QlikView Workbench Extension Object Template Speeds Up Development

Developers can use QlikView Workbench to create QlikView extension objects in Microsoft Visual Studio® more quickly and easily than ever before. The new Visual Studio project template includes all the files needed to build a working QlikView extension object and publish it to QlikView Server. The new Visual Studio project template also includes:

- Guidance on how to customize QlikView extension objects
- A user interface for creating a custom property pane for extension objects
- The ability to test extensions from within Visual Studio.

EASIER APP DEVELOPMENT

QlikView 11 delivers new and improved capabilities to make it easier for developers and business users to create QlikView apps.

Version Control Integration Streamlines Development

When handling large QlikView deployments, developers and administrators can improve the efficiency of app development by accessing and utilizing a central version control (source control) system, such as Microsoft Team Foundation Server and Apache Subversion, directly from within QlikView Desktop. Using a new option in the File menu, QlikView developers connect a QlikView app to the source control system. The source control system then provides change tracking and rollback and can merge changes made by multiple developers. Each element of the QlikView app—such as script, properties, and user interface object definitions—is stored separately and can have changes tracked separately.

Improved Ajax Dialog Boxes Make It Easier to Create QlikView Objects

Creating QlikView objects (e.g., charts, graphs, and list boxes) in the Ajax browser client is easier than ever before, especially for non-technical users. QlikView developers and business users can create QlikView charts, graphs, list boxes, etc.—all of which can be shared as collaboration objects—using improved dialog boxes, drag and drop, and visual assembly. QlikView presents the most frequently-used menu items at the highest level, with others nested below.

Granular Chart Dimension Control Simplifies Presentation of Data

Granular chart dimension control enables developers to easily create meaningful comparisons among dimensions in a chart. They can easily choose to display the lowest values, first values, top values, etc., in a single chart. In previous releases of QlikView, this required the use of macros and advanced aggregation functions.

Metadata Enhancements for Developers Enrich the Business User Experience

When creating or modifying QlikView apps, developers can annotate dimensions and expressions within charts. This gives business users an explanation of the content and context of chart elements. For example, when users hover over the X axis in a chart, they can see comments about the dimension and when they hover over the Y axis they can see comments about the expression. This new capability expands upon the comments and tags we introduced in QlikView 10.

Improved Layout Options Make It Easier to Create QlikView Apps

QlikView 11 has several improvements that make it easier for developers and business users to create QlikView apps:

- **Container object enhancements make better use of screen real estate.** Container objects give QlikView designers a means of presenting multiple perspectives on a set of facts in a single, space-saving object. In QlikView 11, designers can create apps that are more efficient and user friendly by placing multiple objects on a single tab, snapped together in a grid. Users gain consolidated viewing context.
- **Conditional enabling of dimensions and expressions improves the user experience.** Developers can manipulate QlikView objects to provide refined context based on a user's action, selections, or role, or any underlying data condition. Developers can specify conditions that control when a dimension or expression is used on a chart, or when a table is used, based on any criteria.
- **Improved tab navigation makes it easier for users to find QlikView content.** In the Ajax client, we've improved the way users navigate from one sheet (tab) to another within a QlikView app. Users can now scroll through tabs to find the sheet they want, or select a sheet from a drop down menu. They can also easily add new sheets.

QlikView Direct Discovery

With Direct Discovery, a capability of QlikView 11.2, QlikView brings relevance and context to Big Data. QlikView Direct Discovery provides connectivity to SQL-based data sources such as Cloudera Impala and Teradata Integrated Data Warehouse. Within a single app, users can work with data stored in Big Data repositories as well as data in QlikView's in-memory engine. With this hybrid approach, users get the associative experience across all data in the app, regardless of where it is stored—a capability unique to QlikView.

QlikView Direct Discovery delivers thorough, unified analysis. Users can easily expand their analysis to include Big Data sources that have not yet been tapped. They can drill down from in-memory data sets to detailed measures stored in Big Data systems. Direct Discovery delivers the same easy-to-implement, rapid app development experience to data sets that were previously used separately, or not used, because of their bulk and the development effort required.

ENTERPRISE PLATFORM

While Business Discovery platforms must deliver business user benefits such as insight everywhere, mobility, and a social and collaborative experience, they can't stop there. Business Discovery platforms must also meet IT requirements for security mechanisms to protect sensitive data, the ability to crunch massive volumes of data quickly, and advanced yet easy-to-use administration tools. QlikView 11 is packed with new and improved capabilities designed to improve performance of large deployments and make them easier for IT pros to secure and administer.

PERFORMANCE IMPROVEMENTS

QlikView 11 provides several new and improved capabilities to improve system performance.

Publisher Performance Improvements Mean Fresher Data

QlikView 11 introduces important changes to the QlikView Publisher component, which is used for reloading QlikView apps and distributing derivative QlikViews. We've significantly improved the performance of QlikView Publisher reload and loop and reduce tasks.

Load Balancing Improvements Reduce Complexity and Cost

We added an additional algorithm for load balancing, in deployments that utilize QlikView Web Server, to help QlikView administrators better manage a cluster of QlikView Servers. QlikView Web Server can route traffic in several ways: randomly, by RAM (random access memory), and/or by CPU (central processing unit) utilization. These factors work in tandem. Administrators can configure the environment so that, for example, a large QlikView app is not moved to a server that may have plenty of disk space but is overloaded with processing.

More Granular Clustering Optimizes Available Computing Resources

QlikView administrators managing deployments that have large data volumes can reduce the complexity and cost by controlling which nodes in a cluster execute which apps. For example, administrators can choose to assign larger QlikView apps to larger servers and can achieve better utilization of commodity hardware for smaller loads.

EASE OF ADMINISTRATION

QlikView 11 introduces changes to make it easier for administrators to manage the QlikView estate.

QlikView Management Console Saves Administrators Time

We have usability tested the unified QlikView 11 management console for significant improvements in speed and ease of use. We focused on areas like task searching and filtering, task execution history within the status task page, task templates and creation wizards, and event notifications (such as when a service is down).

AccessPoint Redesign Helps IT Better Support Business Users

AccessPoint is the QlikView portal where users can find and access QlikView apps to which they have security rights. With QlikView 11, AccessPoint provides a more visually appealing and user-friendly experience for people using apps on QlikView Server (see Figure 5). New and improved AccessPoint capabilities include a fast, modern design as well as the ability to: assign characteristics/attributes to apps to make them easier to find and organize, search for and “favorite” apps, easily sort apps in detail view, and add a searchable description to an app.

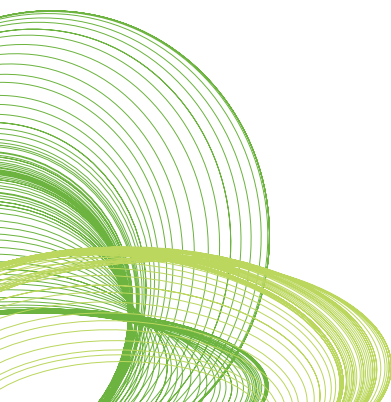
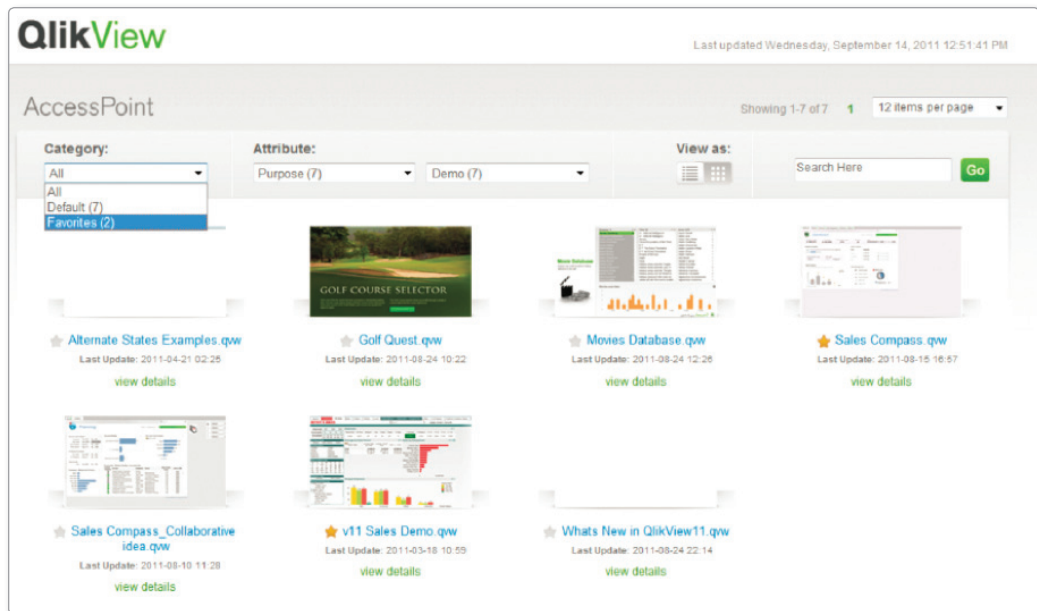


Figure 5: AccessPoint Has a Sleek, Clean Look and Feel



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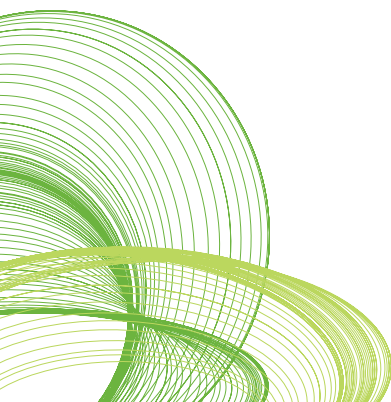
QlikView Management Services API Enhancements Enable Additional Automation

With QlikView management services API enhancements, administrators can programmatically interact with the QlikView management service to customize or automate various aspects of QlikView Server and QlikView Publisher administration.

QlikView 11 includes more than 50 new QlikView management services API calls that support automation in areas like collaboration object management, directory service connector lookup and validation, importing of tasks, remote administration, log file access, QlikView Server and QlikView Publisher license configuration, and section access management.

Metadata Enhancements for Administrators Ease Capacity Planning

QlikView 11 helps administrators reduce management overhead and plan capacity across large deployments, with a clear picture of app and data usage patterns. Through metadata, QlikView 11 exposes more granular information about apps and QlikView administration.



QlikView Governance Dashboard

The QlikView Governance Dashboard helps IT professionals maximize data governance and optimize their QlikView investments by discovering how QlikView is used at a granular level. With this knowledge, they can introduce more manageable and repeatable processes when developing QlikView applications, as well as address data lineage and impact analysis questions. They can also ensure compliance with regulatory acts, policies and standards that require an understanding on how data is created, protected and delivered. The QlikView Governance Dashboard is a free QlikView app available on QlikMarket (market.qlikview.com).

SECURITY ADMINISTRATION

QlikView 11 provides a number of new and improved capabilities to make it easier for administrators to secure their QlikView environments.

Document-Level Auditing Increases Audit Accuracy and Lowers Risk

Risk management and compliance are top of mind wherever sensitive business data is concerned. New optional settings within QlikView Management Console enable administrators to more effectively audit user interactions. Administrators can improve the accuracy of results when conducting a usage audit by tracking which users access what apps and performing this analysis retroactively. Administrators can audit QlikView usage not only at the QlikView Server level, but down to the document (app) level.

Granular Download and Export Control Improves Manageability

QlikView administrators can improve control and manageability when applying privileges for document download and/or data export. They can now assign privileges at both the document and user level.

Publisher QVD Generation Makes It Easier to Manage and Secure Data Centrally

Central data management is easier than ever before for QlikView developers and architects. They can manage data by creating QVD (QlikView data file) layers from a centralized, server-side, QlikView Publisher location. Developers and architects can create QVDs without the additional overhead of managing a QVW (QlikView file) solely for the purpose of creating a QVD; they can create QVDs via a script. Optionally, QlikView administrators can also assign NTFS (New Technology File System) security to QVDs using this mechanism.

For more information about QlikView 11, please visit www.qlikview.com.