

## 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 IT for help with a new query or report each time they come up with a new question. Instead, 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

Social Business Discovery enables business users to collaborate on discoveries. They can ask and answer their own stream of relevant business questions in formal or informal groups, in real time as well as asynchronously. Users collaborate with others 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 the QlikView platform including collaboration objects, shared bookmarks, Microsoft Office® integration, and QlikView web parts for use with Microsoft SharePoint®.

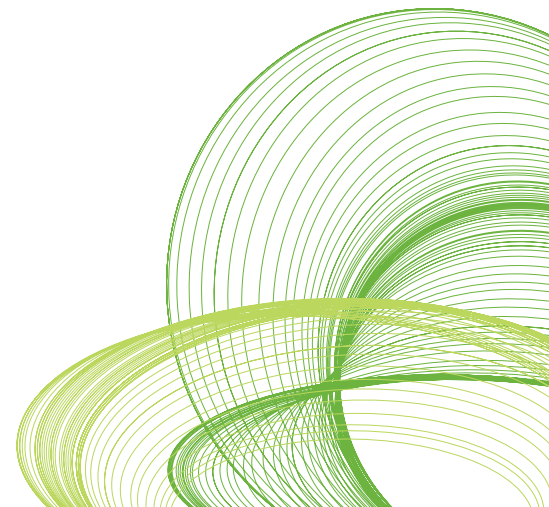
### COLLABORATIVE SESSIONS BRING DECISION MAKERS TOGETHER

Collaborative 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 document in real time — sharing selections and testing

### THE FIVE THEMES OF QLIKVIEW 11

QlikView 11 arms business users with multiple sources of insight: data, people, and place. Make decisions “on location” with mobile Business Discovery. Nurture and encourage collaborative decision making with social Business Discovery. And drive data-driven decision making with improvements in core QlikView. With our investments in five theme areas, we've taken 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

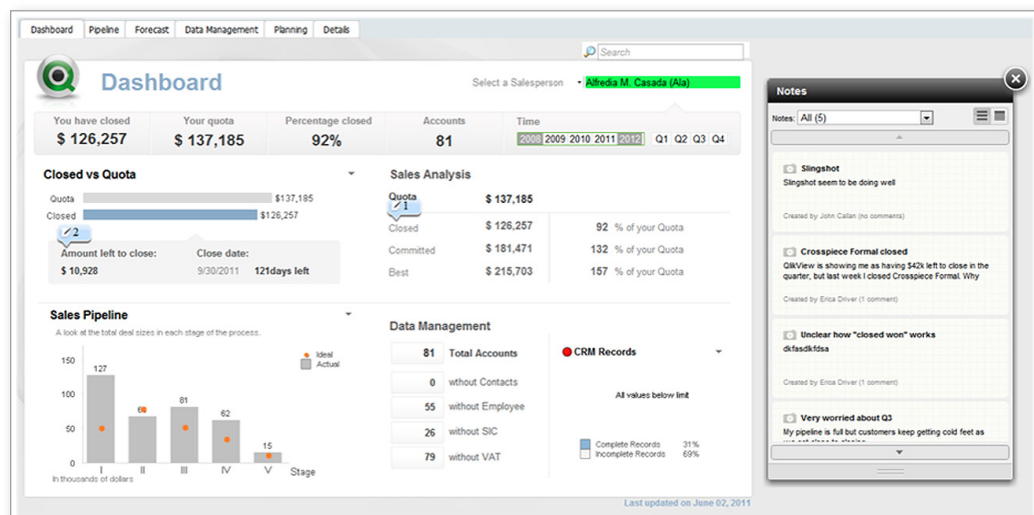


scenarios together to better uncover insights and solve problems. Users can share a QlikView document with others, including those who don't have a QlikView license. A user invites others to join a session by distributing a one-time-use URL. Each participant interacts with the same QlikView app at the same time, for the duration of the session — without having to pass control manually from one to the other. 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 the new annotations collaboration object in QlikView 11, QlikView users can engage each other in discussions about QlikView content (see Figure 1). A user can create notes associated with any QlikView object. Other users can then add their own commentary to create a threaded discussion. Users can capture snapshots of their selections and include them in the discussion so others can get back to the same place in the analysis when reviewing notes and comments. QlikView captures the state of the object (the user's 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**



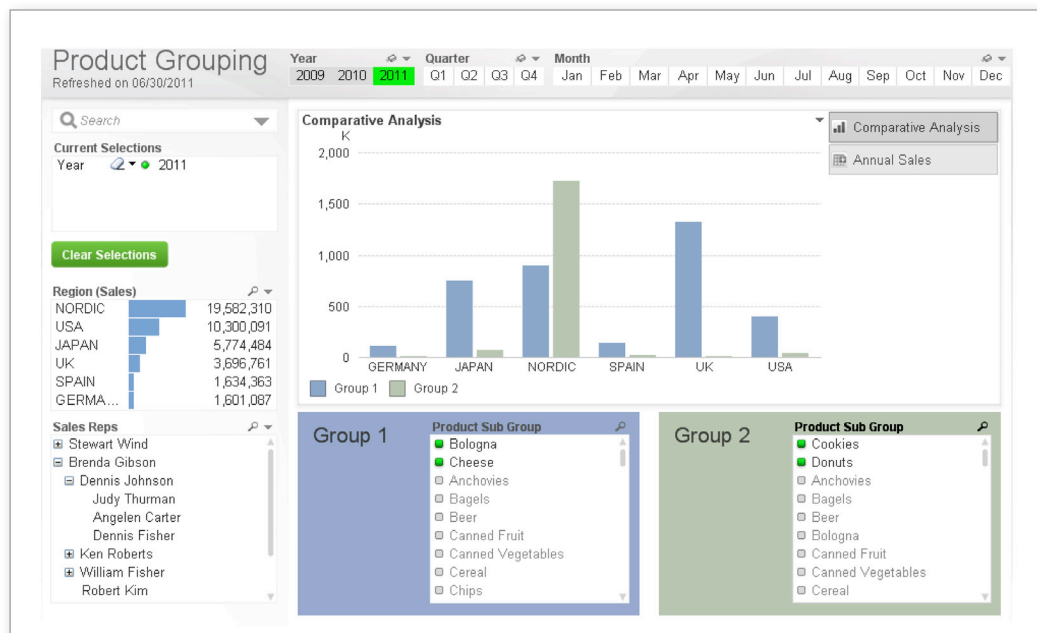
## COMPARATIVE ANALYSIS

QlikView 11 takes QlikView's associative analytics capability to a whole new level.

### PERFORM COMPARATIVE ANALYSIS FOR DEEPER INSIGHT

Business users can quickly gain new kinds of insight when analyzing information in QlikView with comparative analysis. Users can now easily compare and interact with multiple different views or selection states of the data (see Figure 2). This makes it easier to spot trends, outliers, or differences, and 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, users can get insights “on location” and take immediate advantage of being in a particular place at a particular time. QlikView on Mobile delivers true Business Discovery and the full power of QlikView to the mobile device.

## SUPPORT FOR 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 their QlikView apps via HTML5 browsers on a number of different tablet devices. 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. QlikView 11 delivers full mobile functionality for tablets on Apple iOS, Android, and BlackBerry platforms.

## QLIKVIEW 11 MAKES OPTIMAL USE OF SMALL TOUCH SCREENS

Business users get improved usability by accessing QlikView on their smartphones using HTML5 browsers. QlikView Server displays apps on smartphones one object at a time (e.g., chart, graph, list box, or map) (see Figure 3). Users can select which object they want to see from a tile view. For small-screen devices such as iPhone and Android Phone, this single-object display mode delivers a more intuitive user experience without the need for developers to rebuild applications.

**Figure 3: Browser-based support for smartphones makes optimal use of small touch screens**

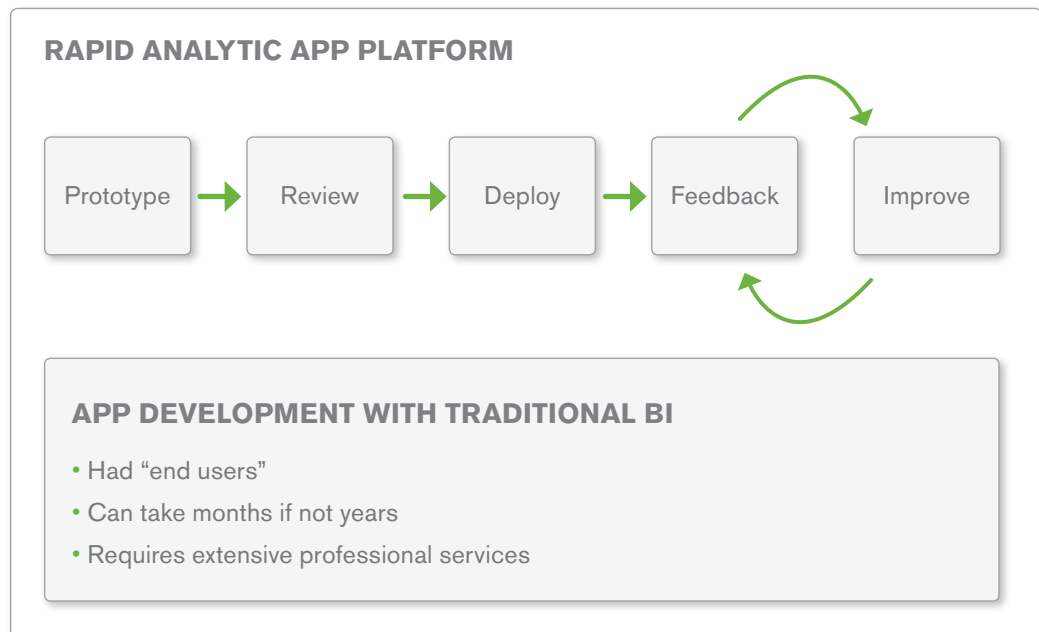


## RAPID ANALYTIC APP PLATFORM

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

QlikView 11 includes new and improved capabilities that meet the needs of IT professionals and third-party software developers – as well as the needs of business users who want to create their own analytic apps. QlikView 11 offers improvements in extensibility and application development.

**Figure 4: App development in QlikView is collaborative and iterative**



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## **EXTENSIBILITY**

QlikView 11 makes it easier for developers to extend the platform.

### **Document Extensions Provide a Way to Execute Custom Code**

With the Ajax browser client, business users gain a more 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 are reusable. Once created, they can be reused in multiple QlikView documents.

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 document 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. It 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.

## **IMPROVED APPLICATION DEVELOPMENT**

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

### **Version Control Integration Streamlines Development**

When managing large QlikView deployments, developers and administrators can improve the efficiency of application development by accessing and utilizing a central source control system, such as Microsoft Team Foundation Server, directly from within QlikView Desktop. Using a new option in the File menu, QlikView developers connect a QlikView document to a 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 document – 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 now create regular or extension objects — 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 in Charts**

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

## **Metadata Enhancements for Developers Help Improve the Business User Experience**

When creating or modifying QlikView applications, developers can annotate dimensions and expressions within each chart. This gives the business user an explanation of the content and context of the chart elements. For example, when users hover over the X axis in a chart, they can see the associated dimension comments and when they hover over the Y axis they can see comments associated with expressions. This new capability expands upon the comments and tags 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 now create QlikView user interfaces 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 now manipulate QlikView objects to provide refined context based on a user's action, selections, or role, or the underlying data conditions. 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 to find QlikView content.** In the Ajax client, we've improved the way users navigate from one sheet (tab) to another within a QlikView document. Users can now scroll through tabs to find the sheet they want, or select a sheet from a drop down menu. They can also add new sheets more easily.

## 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 improvements to the QlikView Publisher component, which is used for reloading QlikView documents and distributing derivative QlikView applications. We've significantly improved the performance of QlikView Publisher reload and loop and reduce tasks. QlikView 11 introduces roughly 40% improvement in QlikView Publisher performance, compared to QlikView 10.

#### **Load Balancing Improvements Reduce Complexity and Cost**

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

#### **More Granular Clustering Optimizes Available Computing Resources**

With more granular clustering, QlikView administrators managing deployments that have large data volumes can reduce the complexity and cost by optimizing resources. Administrators now have control over which nodes in a cluster execute which documents. For example, they can choose to assign larger QlikView documents to larger servers, and can achieve better utilization of commodity hardware for smaller loads.



## EASE OF ADMINISTRATION

QlikView 11 delivers a number of improvements to make it easier for administrators to manage the system.

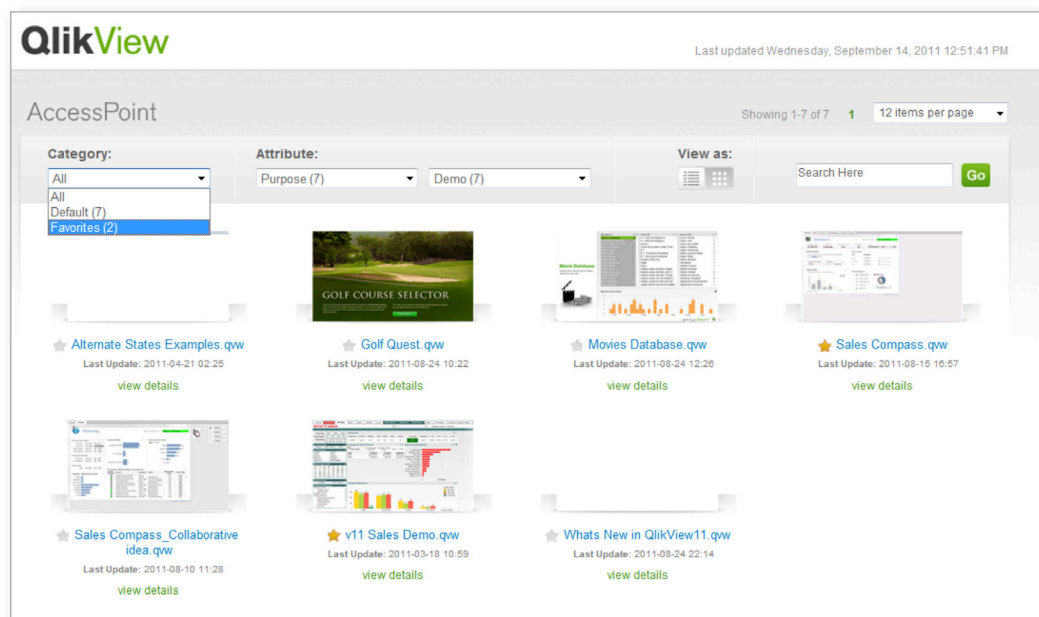
### QlikView Management Console Saves Administrators Time

The unified QlikView 11 management console interface has been usability tested for significant improvements in speed and ease of use. We've made changes in 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 accessing QlikView apps on QlikView Server (see Figure 5). New and improved capabilities include a faster and more modern design, as well as the ability to assign characteristics/attributes to documents to make them easier to find and organize, search for and “favorite” apps, more easily sort apps in detail view, and add a searchable description to a document.

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 improve automation of their QlikView environment. This API enables developers and administrators to 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, and importing of tasks. It also supports remote administration, log file access, QlikView Server and QlikView Publisher license configuration, and section access management.

## **SECURITY ADMINISTRATION**

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

### **Document-Level Auditing Improves 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 audit results when conducting a usage audit by tracking which users access what documents, and performing this analysis retroactively. Administrators can audit QlikView usage not only at the system level but down to the document 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 now manage data by creating QVD (QlikView data file) layers from a centralized, server-side, QlikView Publisher location. Developers and architects can now create QVDs without the additional overhead of managing a QVW (QlikView file) solely for the purpose of creating a QVD; they can now 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](http://www.qlikview.com).