
QlikView

Mobile Client - Quick Reference Manual

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Authored by QlikTech International AB

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Content

QlikView Mobile Client	4
The QlikView iPad Client	4
Ajax Client on Small Devices	4
Working with the QlikView iPad Client App	5
Add Access Point	5
Change Access Point	7
Preparing for Offline Mode	9
Download process	10
Working Offline	12
Server Side Features	15
Features	15
High Level Architecture	16
Server - Installation and Deployment	17
Qlikview Offline Service	17
Qlikview iPad Application	17
Configuration	17
Contacting Support	18
Deployment Best Practices	18
Limitations	19
Ajax on Small Devices	20
Supported Platforms	20
Preparations for Ajax on Small Devices	21
Connecting to the QlikView Document	21
Settings in QlikView AccessPoint	21
Creating a Shortcut on the Home Screen	21
Working with the QlikView Document on the Small Device	22
Adapted Layout	22
Navigating Among Sheets	22
Navigating Among Objects	22
Main Menu	23
Current Selections	23
Bookmarks	23
Switch to Full Browser Version	24
Close [Current Document]	24
Working with Objects	24
Orientation and Zooming	25

QlikView Mobile Client

This document gives you an overview of the different possibilities when working with QlikView on iPads, smart phones, or other small devices. The two main options when working mobile are the QlikView iPad client and the Ajax client on small devices. The details of these two options are presented in this document.

The QlikView iPad Client

The QlikView iPad Client is an app that can be downloaded from the Apple iOS App Store. The iPad client is only available for iOS devices. The client is designed to offer a regular QlikView experience. When connected, you have exactly the same options as when using a standard browser. When disconnected, you can still perform some offline mode actions, such as reading and interacting with the QlikView documents, but not perform any development or authoring.

Conditions for Offline Use

The following conditions must be met to be able to work offline:

- You are working on an iPad.
- You have logged on to an Access Point.
- The Offline Service has been installed and started.
- The document has the attribute "Offline" = TRUE.
- You have selected bookmarks for Offline use.
- You have selected a list for Offline use.

Working with QlikView in Offline Mode

Offline mode gives you an opportunity to do some limited work in QlikView even when you do not have network access or cannot connect to your host QlikView server. Although you cannot perform genuine business discovery, you can analyze data that has previously been selected and prepared for offline use.

Limitations

In offline mode you can move between tabs; scroll scrollable lists in maximum 1 list box with up to 40 rows of data.

In offline mode you cannot use buttons and macros, select or highlight any of the native controls, work interactively, or use the Standard QV Ajax menu.

Ajax Client on Small Devices

The Ajax client is web based and available for all mobile devices that have a supported platform. The Ajax client enables you to work with existing applications without redesigning them, as zooming and scrolling options are available. When Ajax is used on small devices, such as smart phones, some objects are excluded to optimize use of the limited space. The Ajax client is not available for offline use.

Conditions for Use

The following conditions must be met to be able to use the Ajax client:

- You are connected to an Access Point.
- You have set the preferred mobile version on the QlikView AccessPoint start page.

Working with the QlikView iPad Client App

Before you can start working on the iPad client, you must connect to an Access Point (AP). The following sections present how to add and change Access Points.

Add Access Point

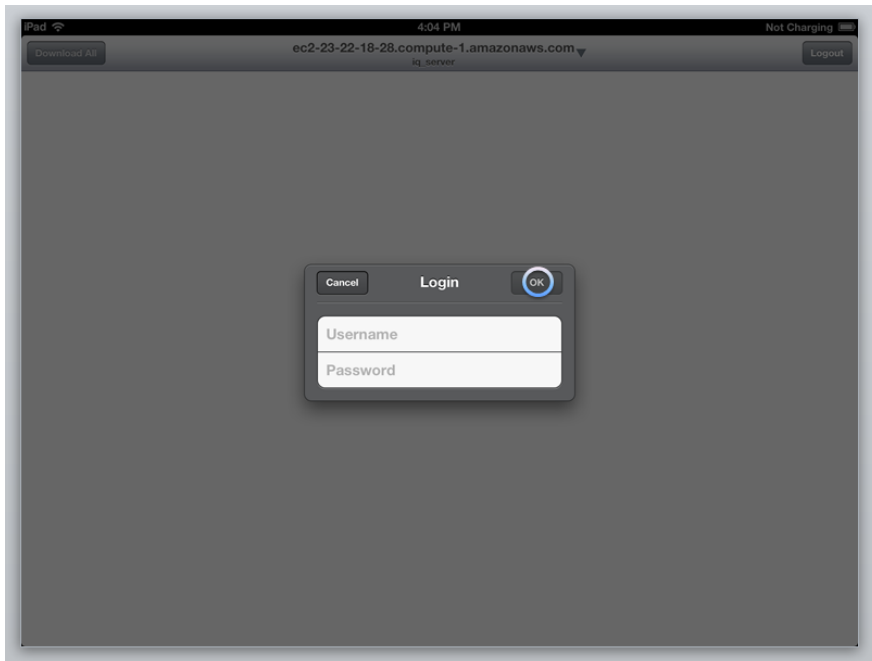
1. To add an Access Point, tap the AP name.
2. In the **Access points** list, tap **Add new access point**.



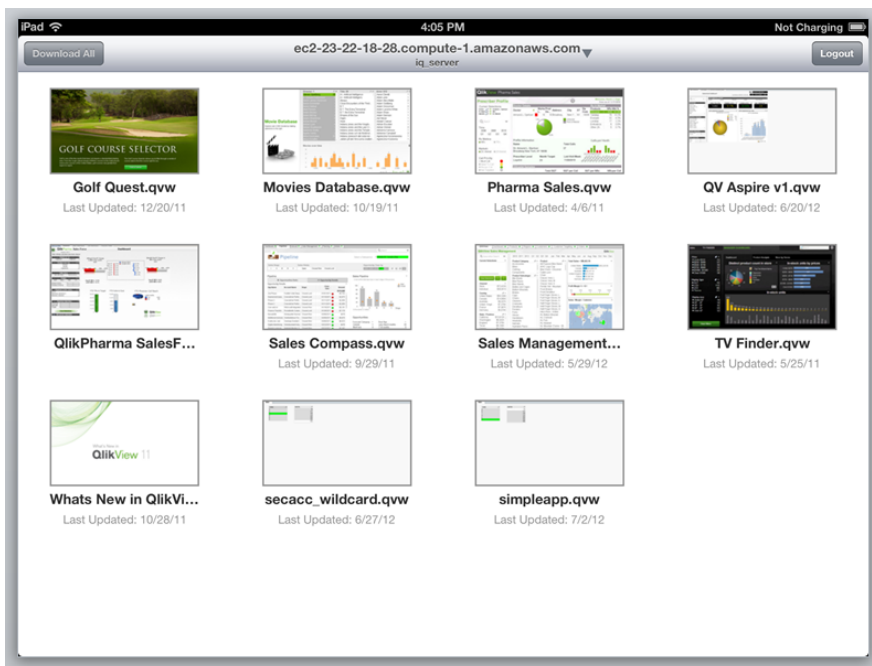
3. You cannot remove the Access Point that you are currently using. First, you must navigate to the new Access Point, then you can remove the prior entry. Setting up a new Access Point requires that you enter the AP URL (omit the 'qlikview' part) e.g. demo.qlikview.com.



4. If prompted, enter user name and password. Click **OK** to proceed to the new Access Point.



5. The documents available at the new Access Point are displayed.



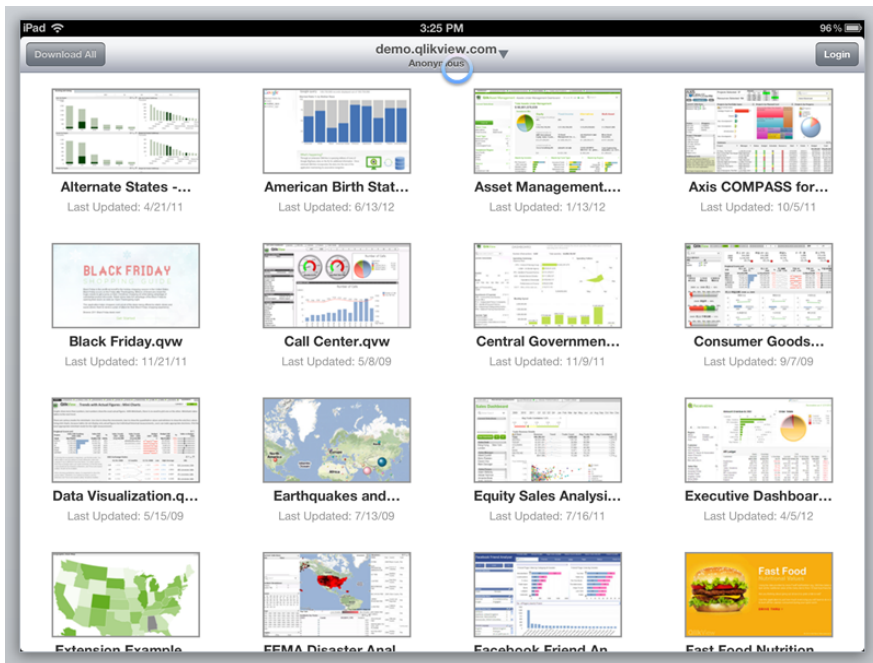
Change Access Point

Do as follows to change Access Point:

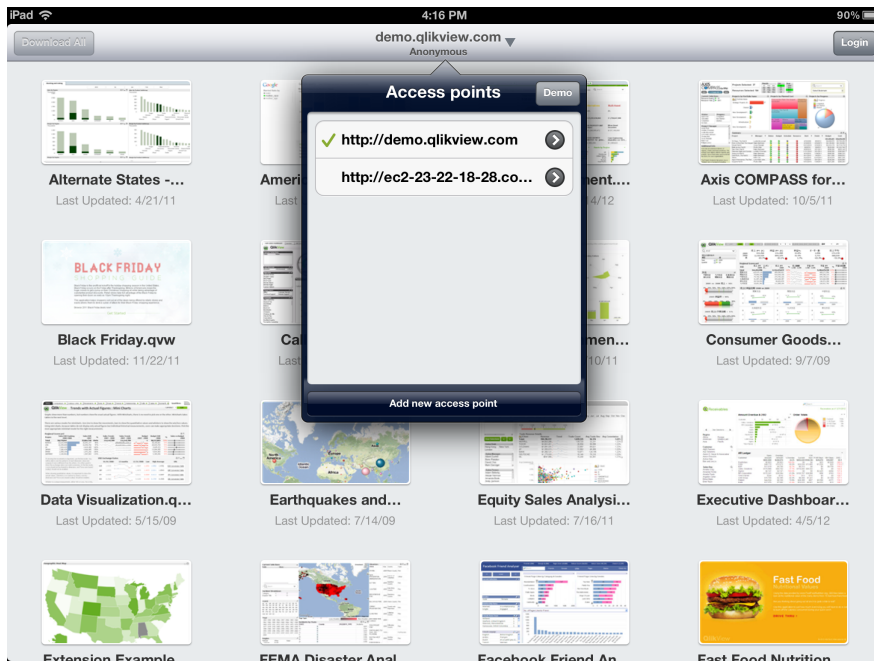
1. Start the QlikView iPad client.



2. Based on your login or the server's anonymous setup, you are presented with a list of available documents as determined by QlikView Server. The list of available applications is controlled based on standard logic applied by QlikView Server that matches the user against the security rights associated with each hosted QVW. To change to a different Access Point, tap the AP name.

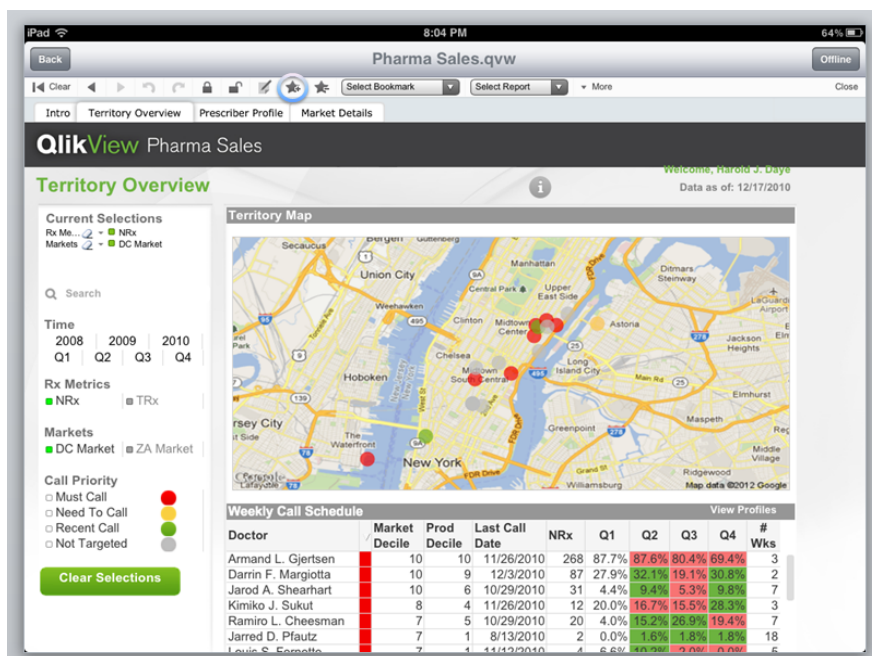


3. The list presents the Access Points that are available on your device.



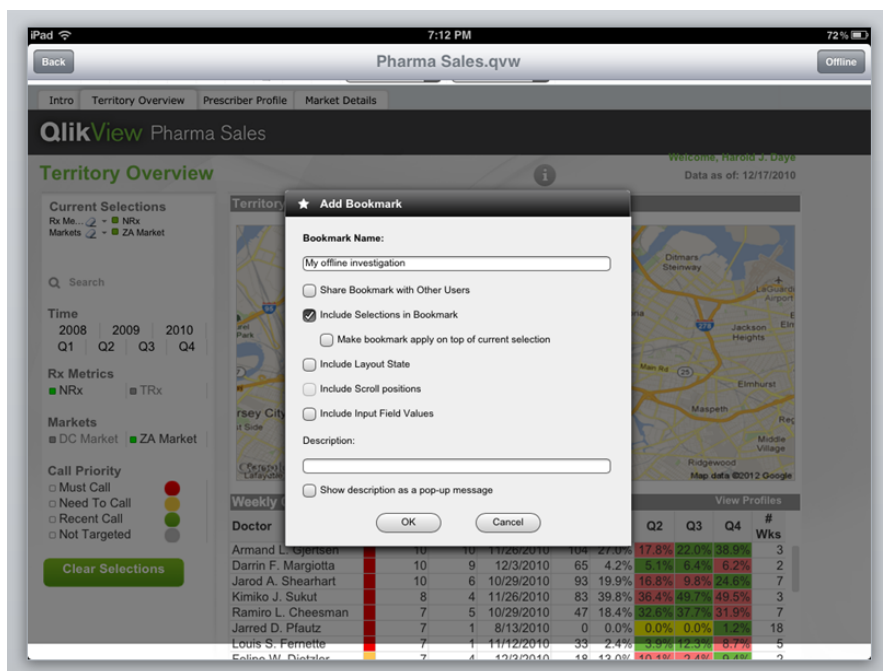
Preparing for Offline Mode

Once inside a QlikView app, your interaction is exactly like when you use QlikView through a standard browser client. Navigation, selection, search, buttons, actions work as expected. And, if configured, collaborative functions, such as bookmarks, shared session, annotations, all work.



Bookmarks are central to the offline implementation. You use bookmarks to determine what data to take offline. Within a connected session, you create bookmarks to define perspectives that are useful in an offline session. Note that when going offline, the current state of the app is **not** synced. If the current state is relevant for offline use, it must first be saved as a bookmark. Data that is synced to the iPad is the result of explicit selections.

Use the **Add Bookmark** dialog to save the current state for offline use.

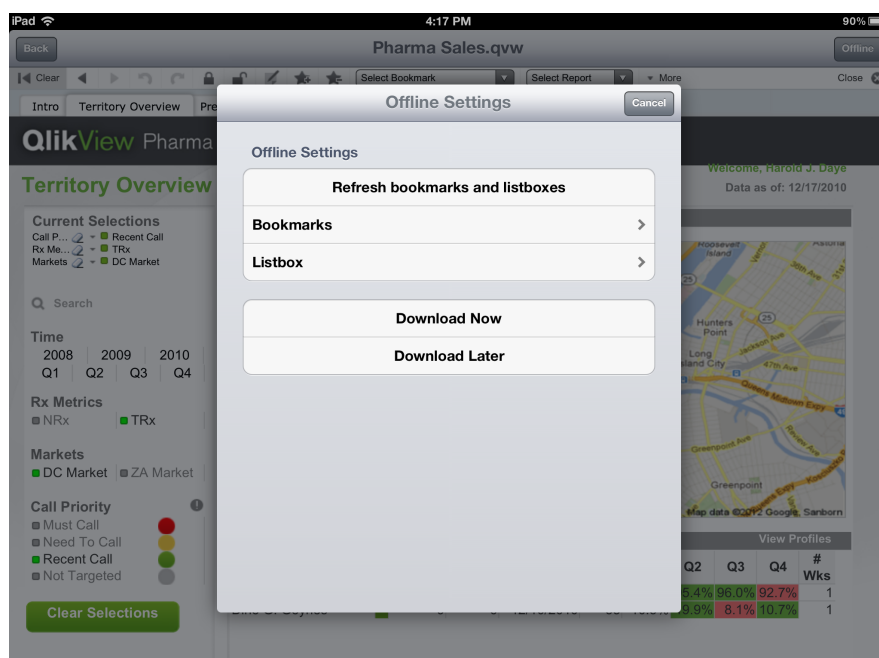


Prerequisites for the Offline option:

- You are on an iPad.
- You have logged on to an Access Point.
- The Offline Service is installed and started.
- The document has the attribute "Offline" = TRUE. (This is set up by the QlikView Management Console administrator through the Source or User Document configuration.)

The following iOS dialog is the one place, whether connected or offline, where you interact with the controls specific to offline QlikView. Activating offline mode is the first step in preparing the document for offline use. However, the document (and session) is still active and not in an offline state.

Tap **Bookmarks** and select as many bookmarks as you like for offline use. The number of bookmarks is limited only by memory and network bandwidth.



Tap **Offline Settings** and **Listbox** to select which list box to use. You can only select one list box for offline use. The set of list boxes available for selection is limited to those that have caption text defined within them. (The caption itself does not have to be active). Multi-boxes are **not** included in this set. Tap **Offline Settings** to return to the configuration screen. Not all data in the selected list box will be available offline. The application only takes the first 40 rows in order of appearance, due to the iPad memory and network constraints.

Download process

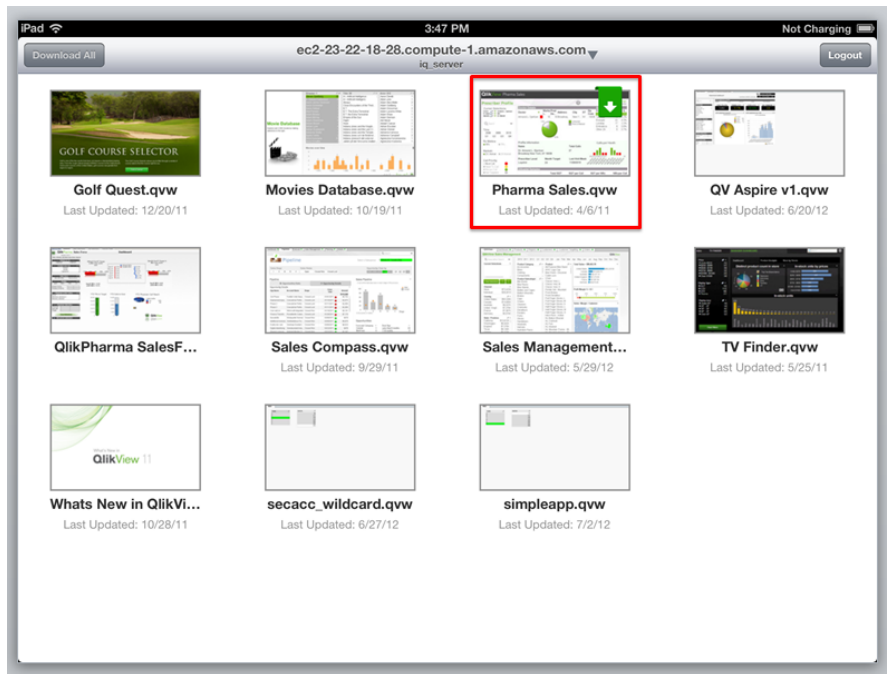
In the **Offline Settings** dialog, tap **Download Now**.

The following happens during download:

- The client passes the offline settings for this document to a new server process (document, user, bookmarks and list box).
- The server process (the offline service) starts iterating through the document, applying the combination of each bookmark and each *associated* value in the selected list box (associated with the criteria applied by the bookmark).
- During each iteration of bookmark/list box value, the offline service generates data slices of each tab in the document, and within each tab, each tab of any container.

- The offline service operation is repeated for each combination of bookmark and list box value, and also for the 'home' state of each bookmark and the clear state of the application.
- The images (or slices) are packaged and returned to the invoking client.

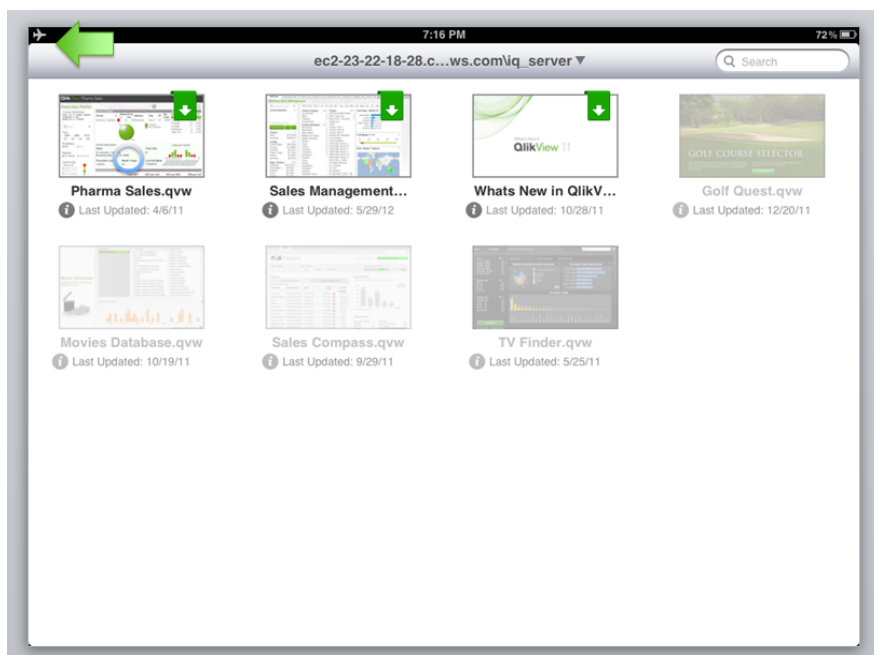
When you return to the Access Point, the documents available for offline use are marked with a green flag at the top right of the thumbnail.



Working Offline

When you open the client in offline mode, the Access Point displays the documents for each of the configured servers. Documents synced to the client are listed first. Unavailable documents are displayed as dimmed. (A gray flag on a document indicates that the last time the client was connected to the QVS, the client detected that its image of offline data was obsolete, i.e. the host document had been reloaded since the last sync to this client. Gray flagged (or obsolete) documents cannot be accessed until resynced.

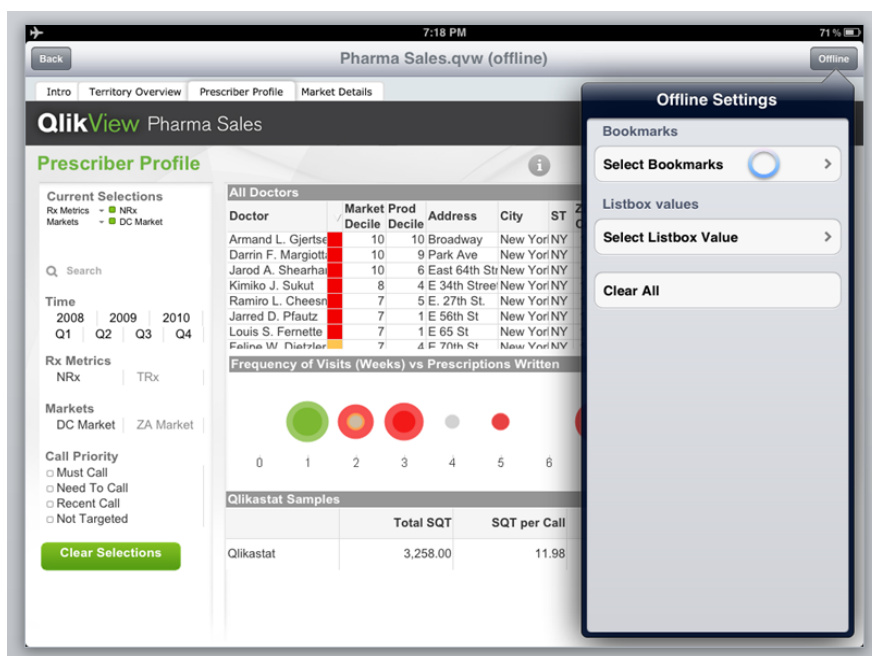
Like in connected mode, you start using a document by tapping the appropriate thumbnail.



In offline mode, functionality is limited. You can use document tabs and scrollable lists, and you can use CLEAR to return to the baseline state. Buttons and macros are not active, and you cannot select or highlight any of the native controls. You cannot export, print, or save anything, nor is it possible to perform any object specific actions. The standard QlikView Ajax menu is removed because the options within it are not active during an offline session.

When you are connected to a QlikView Server and interacting with a document, you cannot continue interacting within the same session when you disconnect. That is, QlikView does not provide any automatic switching between connected and disconnected modes within a session. You must always actively sync your document to be able to use it in a disconnected environment. When you reconnect to the server with your iPad, and access the QlikView iPad Client, any synced data is cleared from your device.

When an offline document is first opened it is displayed in the CLEAR state of the application. This state is always synced and never requires to be explicitly requested. To start reviewing the different data slices you have synced for the document, tap the **Offline** button in the menu. To activate a slice, you start by choosing from the list of bookmarks synced to this client.

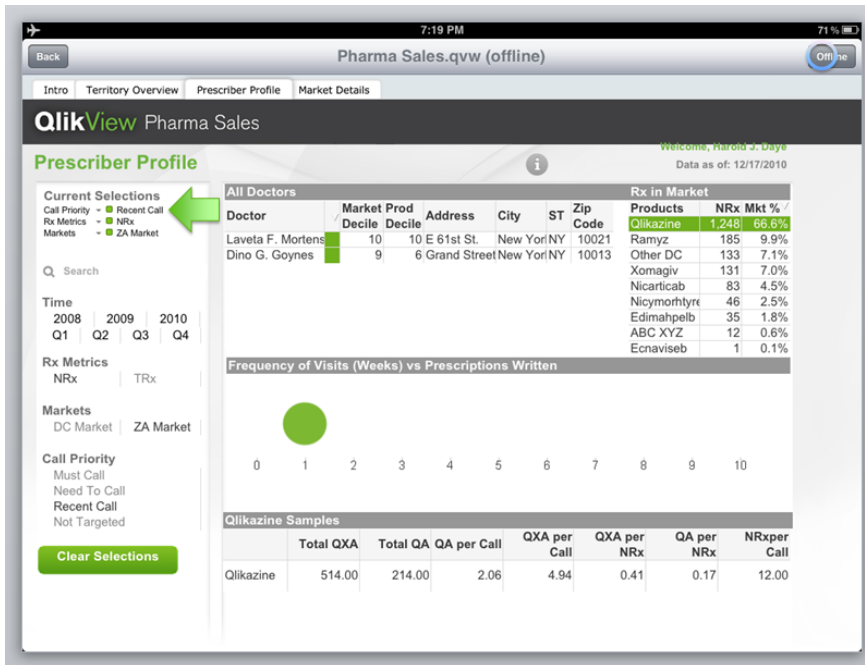


When the bookmark is selected, the Current Selections and images are updated (throughout the document) to reflect the selections in the synced bookmark. At this point, you can review the documents indicators and charts for these criteria and draw conclusions. But to see the result of intersecting the bookmark selection with a value from the synced list box, you have to go back to the **Offline** dialog and select one of the list box values.

The presented values are the *associated* values in the synced list box, based on the criteria within the active bookmark. You can only select one list box value at a time. There is no mechanism that calculates the different possible permutations of the list box values.



The document is updated based on the selected list box value. From here, you can either continue by selecting a new list box value, or clear all to return to the base state of the document.



QlikView offline mode for iPad offers you a possibility to continue exploring your apps, when you do not have access to your corporate QV Server. Though not designed for high interactivity or genuine business discovery, the Offline Client gives you a means to continue a conversation, a line of thought, or even an insight you did not have time to gain beforehand.

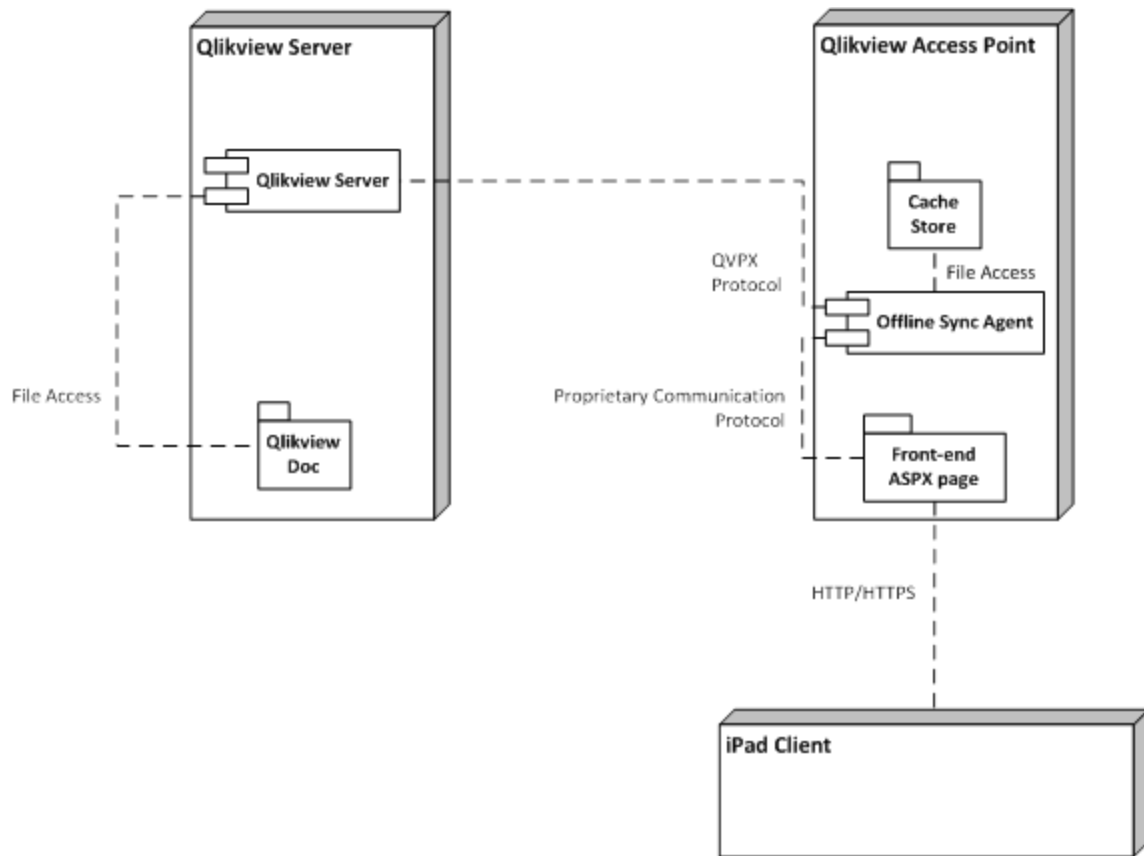
Server Side Features

Features

- Allows viewing of QlikView applications when the iPad is offline (Offline refers to a state of the iPad where the particular QlikView access point is not reachable.)
- Safe and secure. Plugs into existing QlikView security model.
- Carry a number of bookmarks (limited by memory and network bandwidth) and a list box for viewing offline.
- Navigate within the downloaded list box for up to 40 rows of data (configurable).
- Navigate within the downloaded bookmarks.
- Maintain associations within the downloaded data set.
- Always stay up-to-date! Intuitive indication of outdated applications.
- Configure multiple access points for both offline and online use.

Feature	Notes
The data is encrypted with an industry standard encryption for device data (data at rest) and data transmission.	HTTPS for transmission, IOS native encryption for data at rest.
The data is encrypted with FIPS 140-2 encryption, or using the native IOS encryption, for device data (data at rest) and data transmission.	Native IOS encryption or data stores and HTTPS for transfer.
The system controls and prevents orphaned data on the Mobile Device.	When online, the cached data is destroyed automatically.
The system demonstrates a server based "authoritative source" (preferably Active Directory) for synchronized data.	Necessary to log on to QV using AD account to get access to synchronize the data. Section access is not enforced on cached images. Windows and Basic Authentication support OK via standard QlikView Server setup. Forms authentication. Not supported in first release.
The system prevents report data from synchronizing between enterprise and personal applications/systems, and keeps personal data separate from enterprise data.	All storage needs to be separate storage and not part of user storage. Use of the iOS sandbox. This is secure by default.
The system prevents the copying or sending of report data to another application within the device or another device.	It must not be possible to print or export to other programs. Export and print functions are disabled in offline client, but cannot disable native iOS screen capture. Copy/paste within browser within the client is not fired with a long tap when in offline mode, e.g. within text boxes or search boxes.
The system has a maximum security default timeout of 60 minutes.	A timeout within the client. If the OFFLINE client has been inactive for 60 minutes, the user must reenter their userid/password when the client is relaunched.

High Level Architecture



This is the high level architecture of the solution. The client requests offline documents via a new "Offline service" that does the job of preparing a cache with data slices. These data slices are then pulled from the client for offline use.

The server will currently cache data for 60 minutes and then clear its cache. Therefore, if the client fails to fetch the document within this 60 minute period, it must start over.

Server - Installation and Deployment

Qlikview Offline Service

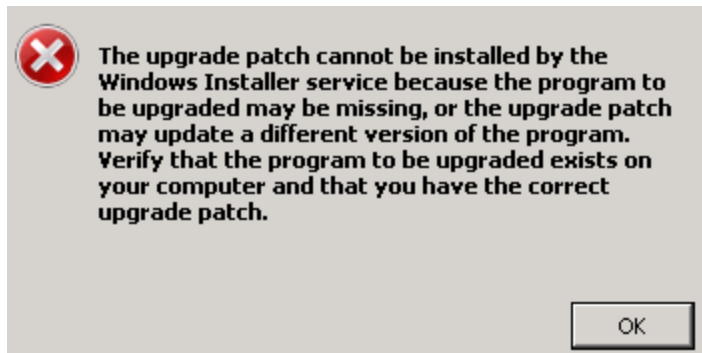
Prerequisites

1. QV11 SR2 installed.
2. For software and hardware requirements specific to installation of QV11 SR2, refer to the "QlikView Server Reference Manual."
3. Offline service is to be installed on the same node as the Access Point.
4. Offline service is only available for x64 servers. There are currently no plans for 32-bit support.
5. Administrator access to the node where installation is required.

Installation procedure

1. Download the offline service installer (QlikViewOfflineService.exe).

If you get the following message, you do not have the right version of Qlikview Server (11.0 SR2) installed.



2. Run the Offline Service installation as an administrator by right-clicking it and choosing the "Run as administrator" option.
3. When prompted for a username and password to be used for the service, use the same account (or with similar privileges) that was used for the Qlikview Server installation.
4. If you are using Qlikview with IIS, ensure that Anonymous authentication is not enabled for Authenticate.aspx file (\Program Files\QlikView\Server\QlikViewClients\QlikViewAjax).
5. If prompted, restart the server.

Qlikview iPad Application

Prerequisites

- iOS 5.1 on the iPad

Installation procedure

- The Qlikview iPad application with Offline functionality is freely available in the Apple App Store.

Configuration

The current version of the Offline service cannot be configured via the QlikView Management Console. The configuration for the service is stored in a config file (QVOfflineService.exe.config) that can be found in the installation folder of the service (<Your Installation Drive>:\Program Files\QlikView\Offline Service\QVOfflineService.exe.config).

The values are stored in textual format as follows:

```
<add key="archiveDays" value="1"></add>
```

An administrator can configure concurrent sessions as well as the duration for which cache files (offline views) are archived on the server. The following table gives a more detailed description.

Parameter	Description	Default Value	Accepted Values
archiveDays	The number of days that the cache files are stored in the archive on the server. Archived cache files are required when you need support from QlikTech.	1	0 or above
concurrentCacheLimit	The number of clients that can simultaneously request offline views. Once the queue is full, any subsequent clients are queued in order of appearance.	50	1 or above

Do as follows to update the configuration:

1. Back up the existing configuration file (\Program Files\QlikView\Offline Service\QVOfflineService.exe.config), in case you need to fall back on default values.
2. Open the configuration file in a text editor.
3. When you have changed the desired parameters, save the file.
4. Stop and start the offline service to apply the configuration.

Contacting Support

In case you need to contact QlikView support due to issues in the Offline service, it is useful to have the following information available:

- Log files from the Offline Service.
- Archived cache files relevant to the issue (time stamp on the archived cache files correspond to the time to the request by the offline client on the iPad).

Deployment Best Practices

- Avoid bookmarks or list boxes for offline use that have very large sets of data. A tablet is not the perfect tool for navigating through millions of lines of data. Large data sets will take very long time to download and are hard to navigate in touch environments creating very poor user experience.
- Re-evaluate the usage scenario and consider one of the following:
 - reducing your data set
 - redesigning your application so that the larger data set resides in a separate application and the mobile application is limited to visualization and analysis.
- Design your mobile applications with touch interfaces in mind. Better still, design them for touch first. A mouse based PC interface can adapt well to a touch driven interface for the iPad with large buttons and fonts, but vice versa is not true.
- When planning for scalability or performance in the server on which the offline service is deployed, you may consider each offline application request as a user accessing a qlikview application via the web based interface. This includes license, CPU and memory usage.
- Currently, the service has not been tested in a clustered environment. If clustering is required, please get in touch with Qliktech support or your local Qliktech sales representative.

Limitations

- We have currently only tested Anonymous, basic, and NTLM authentication.
- It is, currently, not possible to configure the offline service through the QlikView management console.
- By default, you can only take up to 40 rows and 40 columns of data offline in list boxes and tables. This can be overridden by the offline client application on the iPad through individual settings.
- You can only take up to one (1) list box offline.
- The Offline service is only available for x64 servers. There are currently no plans for 32-bit support.

Ajax on Small Devices

Ajax on Small Devices creates support for QlikView data exploration on small form touch devices, such as smart phones. Existing applications may be used without redesign, as QlikView features are used along with built-in scrolling and zooming functionality in the small device. It is possible to open the QlikView document in a layout that automatically redesigns objects to suit small devices, or in its original application layout.

The following descriptions are made using an iPhone, and may vary slightly when using other small devices.

Supported Platforms

Ajax on Small Devices is supported on the following devices:

iOS 4.x and 5.1

Android 2.1, 2.2, 2.3, 3.x and
4.0

Blackberry Tablet OS 2.0

See also:

Preparations for Ajax on Small Devices

Working with the QlikView Document on the Small Device

Preparations for Ajax on Small Devices

Connecting to the QlikView Document

All QlikView documents that are available for you can be selected from QlikView AccessPoint. Connection to QlikView AccessPoint is done by typing `http://localhost/qlikview/index.htm` in the web browser.

Settings in QlikView AccessPoint

Set the preferred mobile version on the QlikView AccessPoint start page:

Small Device Version	Shows the QlikView document in a layout that automatically redesigns objects to suit small devices.
Full Browser Version	Shows the QlikView document in original application layout.

Also, select if the setting is to be saved for the device. The setting may be edited later, by selecting **Favorites & Profiles** at the top right-hand corner of the QlikView AccessPoint start page, on the **Profile** tab.

It is possible to switch between the different layouts at any time, when the QlikView document is opened.

Creating a Shortcut on the Home Screen

Once the QlikView document is opened, it is possible to create a shortcut to the document from the **Home** screen. This maximizes work space for the QlikView document, rather than displaying the browser address field. After having created the shortcut, tap the icon to relaunch the application.

Note!

This description applies only when using an iPad or an iPhone.

Working with the QlikView Document on the Small Device

Adapted Layout

In order to use the limited space of the small device in an optimized way, some objects are not included when opening the document using Ajax on Small Devices:

Button	Current Selections Box	Bookmark Object
Container	Input Box	Search Object
Line Arrow	Multi Box	Text Object

Access to the excluded objects is available by switching to full browser version.

Navigating Among Sheets

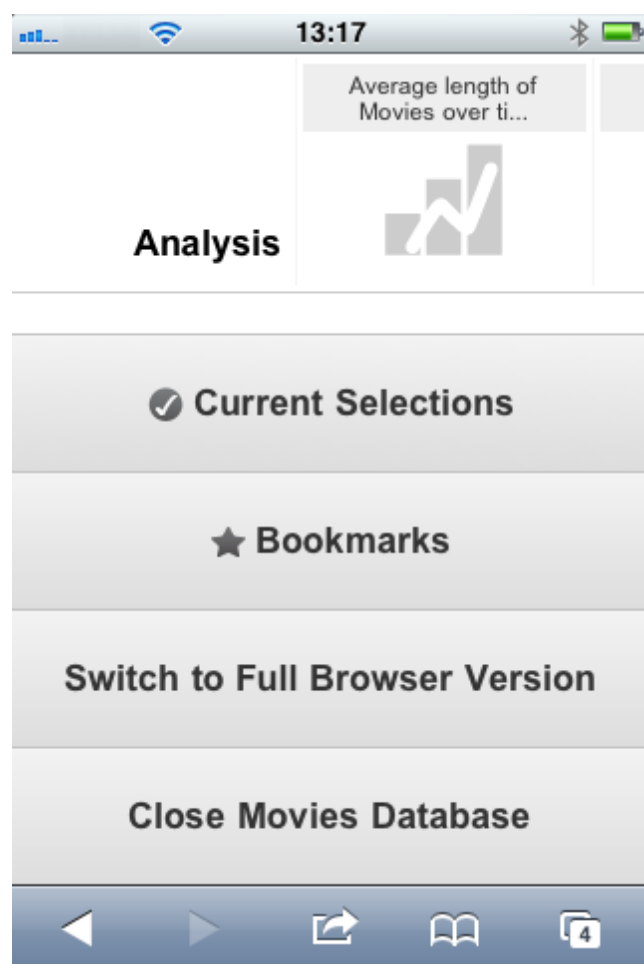
To navigate between sheets, drag your finger up or down on the screen (vertical scrolling).

Navigating Among Objects

To navigate between objects of the current sheet from the document start screen, drag your finger right or left on the screen (horizontal scrolling). To select an object, press it with your finger.

To navigate to the next object on the sheet when an object has been selected, flick left or right, or tap to the left or right of the row of dots at the bottom of the screen.

Main Menu



The main menu is located at the bottom of the screen when a QlikView document is opened, and contains a number of options:

Current Selections

Pressing **Current Selections** displays selections that are currently made, and any already made selections can be edited or removed. The current selections affect what is displayed in all objects in the QlikView document. Pressing the arrow in the top right-hand corner opens the **Current Selections** menu, with the following options:

Back	Reverts to the preceding selection state.
Forward	Reverts to the selection state before having selected Back . It is possible to toggle between two states by alternating between the Back and Forward commands.
Lock all fields	Locks all selected values.
Unlock all fields	Unlocks all currently locked values.
Clear all selections	Clears all selections, except locked ones.
Unlock and clear all	Unlocks and clears all values.

Bookmarks

Pressing **Bookmarks** displays all bookmarks that are defined for the document. The current state of selections can be saved as bookmarks for later use. Bookmarks capture selections in all states defined in a QlikView document. When recalling a bookmark, the

selections in all states will be applied. Bookmarks cannot be defined, only viewed, when using the layout adapted for small devices. Please refer to section *Bookmarks* in the QlikView Reference Manual for further information about bookmarks.

Switch to Full Browser Version

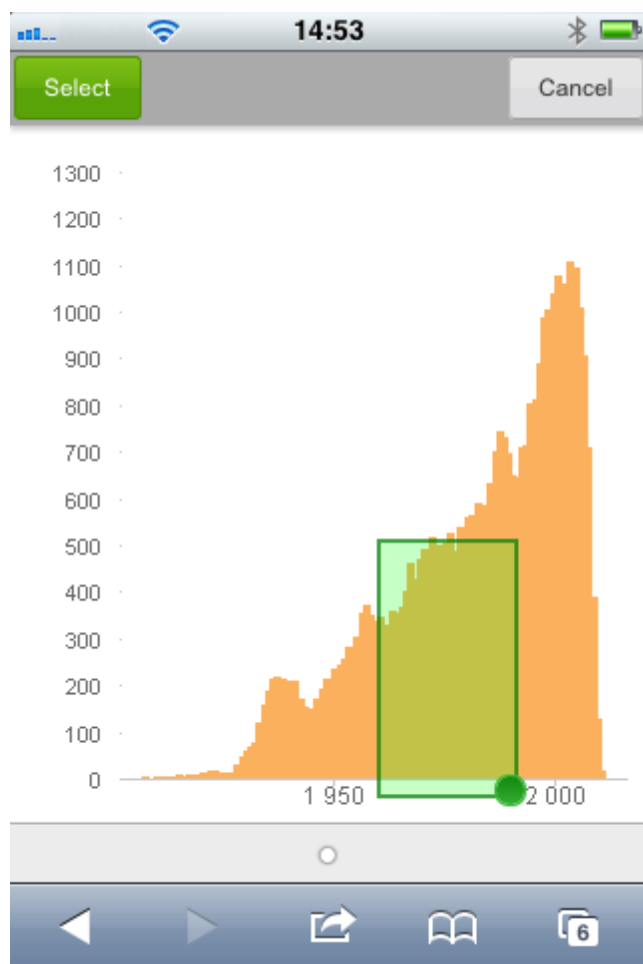
When having opened the QlikView document in the version optimized for small devices, it is possible to switch to original application layout by selecting the **Switch to Full Browser Version** option.

Close [Current Document]

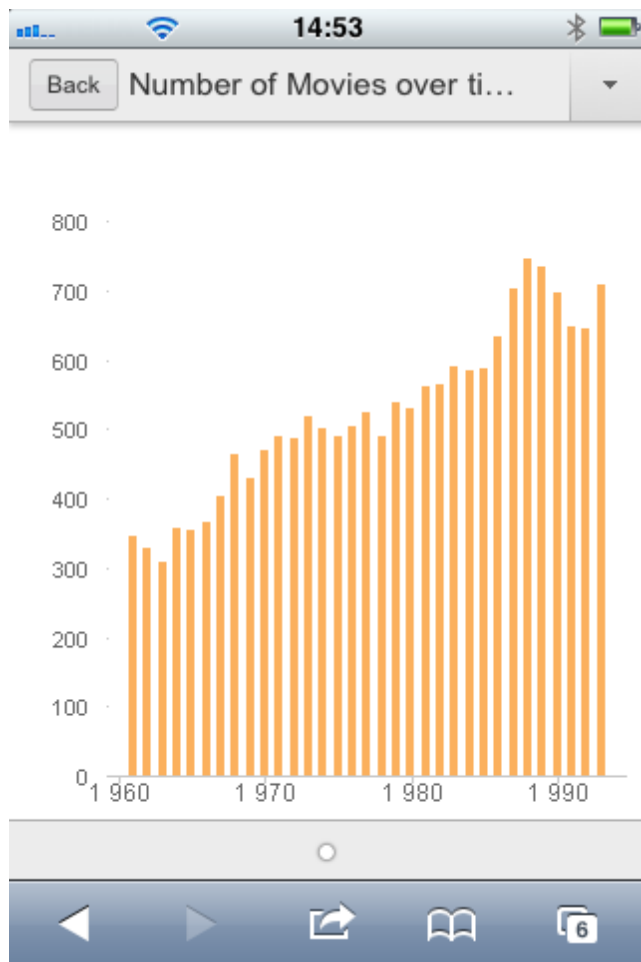
Closes the current document.

Working with Objects

To select a part of the displayed values in for example a bar chart, or to select multiple lines in a line chart, hold your finger on the object until the resizable selection area pops up. Resize the selection area according to your preference, and press the **Select** button at the top left-hand corner.



The selected values are now displayed.



When a menu is available, it is accessed by pressing the arrow at the top right-hand corner. When an object is selected, the menu includes **Current Selections** and **Bookmarks**. The menu is closed by pressing the X-icon.

To return to the previous view, press the **Back** icon at the top left-hand corner.

To select multiple items in a list box or in a table, hold your finger on the item until the **Select**, **Clear** and **Cancel** buttons are displayed at the top of the screen. Use the **Select** button to add selections, and **Clear** buttons to remove selections.

Orientation and Zooming

Rotating the small device 90° allows working with the QlikView document in landscape orientation.

Zooming of QlikView objects is supported when having opened the document in full browser version, using the regular zooming functionality of the small device.

