AGREEYA

QuickApps
Custom SharePoint Without Code

QuickApps for SharePoint® 6.6
User Guide

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AgreeYa Solutions,

605 Coolidge Dr.

Folsom, CA 95630

USA

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Legend

CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death.

IMPORTANT NOTE, **NOTE**, **TIP**, **MOBILE**, or **VIDEO:** An information icon indicates supporting information.

QuickApps for SharePoint User Guide
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Introducing QuickApps for SharePoint®

- About this Guide
- About QuickApps for SharePoint
- Features of QuickApps for SharePoint

About this Guide

This guide describes how to use the web apps component of QuickApps for SharePoint. It contains the information required to perform general tasks and is intended for network administrators, consultants, analysts, and any other IT professionals using QuickApps for SharePoint.

Before using this guide, see the *QuickApps for SharePoint - Quick Start Guide* for installing and activating QuickApps for SharePoint. The same document also introduces the basic operation of QuickApps for SharePoint, using a simple configuration to externalize documents in a sample SharePoint environment.

About QuickApps for SharePoint

QuickApps for SharePoint enables you to build applications that can be easily supported, maintained, and upgraded to ensure their long-term impact and return on investment. Because web apps automates simple or mundane tasks, you can free up SharePoint development resources and satisfy business requirements without costly custom coding.

Features of QuickApps for SharePoint

QuickApps for SharePoint is deployed as a SharePoint Solution. The benefit of the solution package deployment is the ability to deploy web apps in selected Web Applications using the SharePoint Central Administration site. It also provides the flexibility to turn on/off QuickApps for SharePoint as a site feature. When a new site or site collection is created, the Admin or Site Designer can activate the QuickApps for SharePoint - Web apps Library to enable the web apps for newly added site collections.

This product allows you to:

- use point-and-click configuration instead of custom code to customize SharePoint solutions up to 80 percent faster
- meet your most complex business requirements, from interface enhancements to complete solutions, without needing custom development training or experience
- use My First App to configure compelling SharePoint list views and charts in a few simple mouse clicks
- quickly build better SharePoint solutions with easy-to-use web apps featuring built-in video training and tutorials. Discover best practices and tips and tricks from SharePoint peers and AgreeYa experts in the collaborative QuickApps community at www.SharePointforAll.com.
- maximize your SharePoint investment by accelerating SharePoint development cycles in order to save resources, time and money on costly enhancements

- empower end users to make their own customizations without risk to the environment, freeing expensive development resources for more value-added projects
- accelerate SharePoint application development cycles using ready-made templates to deliver help desk, project management and CRM applications that are easily supported, maintained, and extended
- build applications that you can easily maintain and support with no custom coding
- exceed user expectations and extend applications beyond what's natively possible with features that deliver tabular forms to save screen space, dynamically show and hide parts of a form, and establish parent-child relationships to ensure reliable data entry
- deliver sophisticated custom solutions that can be upgraded with ease from SharePoint version to version
- bring data together from all of your enterprise application systems, such as Oracle®, SAP®, SQL Server® and Salesforce.com®, without the hassle of copying the data manually into SharePoint
- build dashboards and charts that provide full visibility of your K2® workflows (including real-time workflow) status. Then build rich SharePoint forms that drive business processes, so users can take action on K2 workflows from directly within the SharePoint form (for SharePoint 2010 only)
- create custom actions with out-of-the-box and Nintex® workflows
- use ribbons. For more information, see Ribbon Groups on page 9.

Ribbon Groups

A Ribbon group is delivered for each web app that supports the SharePoint and SharePoint Foundation Server Ribbon UI.

The contextual group contains the "Commands" contextual tab for the web app on the page, which in turn, contains different Ribbon groups. When you select a web app, you can access such functions as ezEdit and Help.

NOTE: To hide the Ribbon, enable the corresponding property in the Configuration Editor.

When multiple web apps are added to the page, different Ribbon tabs are added in the order of the web app appearance on the page. Each tab's name defaults to the Title property of the web app.

The display name of the tab can be changed using the web app property, Ribbon Appearance. This property allows you to customize the display name for the tab. If this property is filled out, it overrides the web app's Title property. If both of these properties are empty, the default name, "Commands", is used.

The web app's ribbon may consists of one or more of the following groups:

Table 1. Ribbon Groups

Group	Description
Manage Group	Contains the buttons: "Save and Close", "Edit Item", "Edit Series", and "Cancel" depending on the context. For example, if you are working with a form of type EditListItem, the group will contain the "Save and Close" button. If the form type is DisplayListItem or DisplayDocument, and you are working with a Calendar list, the button is "Edit Series". The text for Save and Cancel buttons can be changed by using the Toolbar Appearance tab.
Actions Group	Contains a set of action buttons seen in the regular toolbar, The Ribbon organizes the actions into different groups. In general, any button shown in the toolbar and not in the "Manage" or "Custom Actions" groups is found in the "Actions" group. This includes "Alert Me", "Manage Permissions", or "Manage Copies".
Custom Actions Group	Contains a set of custom actions defined in the Custom Actions properties.
Setting & Help Group	Contains buttons from the web app context menu: "ezEdit", "Help" and "About".

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qCalendarView

- Overview
- qCalendar Pages

Overview

The qCalendarView aggregates data from one or more SharePoint lists and displays it in calendar form.

The qCalendarView allows you to:

- Aggregate data from multiple lists that reside in different SharePoint sites. The lists to be aggregated are defined in the Viewed Lists property.
- Ensure the referential integrity of the records in the dependent lists by preventing the deletion of the parent record. The dependent lists are defined in the Viewed Lists property.
- View your data by Month, Week, or Day.
- Display non-recurring and recurring events from Calendar lists.
- Customize the look and feel for each part of the calendar by using a skin.
- Define a static filter using the CAML Filter expression or Complex Filter expression. The Complex Filter expression supports time functions (for example, AddDays) and time expression (such as [TODAY]) to filter out the data based on the moving time window. This feature is called Data Aging.
- Access the most common functions on the data item, such as View Properties, Edit Properties, Alert Me, Export to ICalendar, and Delete. The author can turn off the context menu by setting the Enable Context Menu property to False.
- Show or hide the calendar based on the site group and cross-site group membership of the currently logged-in user by using the Show User Groups and Hide User Groups properties.
- Enable the chart view to consume a filter from another web app that implements IWebPartRow or IWebPartParameter interface.

TIP: To maintain the same look and feel across all web apps, save the web app as a template, and re-import it into the SharePoint gallery to reuse it.

NOTE: The IWebPartParameter consumer implementation is labeled with Get Filter From in the web app Connection menu. This interface cannot be connected with the obsolete IFilterProvider or IRowProvider implementation. Do not connect this new interface with the old interface that is marked obsolete.

qCalendar Pages

You can configure this web app through its pages that are accessible through ezEdit. qCalendar contains the following pages:

- Content Page
- Behavior Page
- Appearance Page

- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Optional Content
- Search/Filter Panel
- Filtering

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Viewed Lists	See Viewed Lists on page 11.
ID HTTP Parameter	Allows the qListForm and several other web apps to an HTTP Parameter called ID to identify the item to be displayed or edited. This HTTP Parameter is usually generated automatically by the viewer web app, such as qListForm or qCalendarView, when you select an item to be displayed or edited. **NOTE:** If qCalendar is placed on a web app page that is contained within a document library, the page will generate an error if the value of the ID HTTP Parameter is bigger than the number of pages within the document library. To prevent this error from happening, rename the ID HTTP Parameter. By default, the value of this property is "ID". You can change the value of this property to something else, such as LID. In that case, when you select "View Properties" or "Edit Properties" in the context menu, the URL of the display or edit form becomes: http://mysite.com/EditFormURL.aspx?LID=xxx **NOTE:** Set the same property in the qListForm to the same value.
Begin Date Field Name	Allows you to enter the name of the field in the SharePoint list that contains the begin date information. The default value is Start Time, which is the begin date field name for the SharePoint calendar list. If the calendar displays data from another type of list, you may have to adjust the value of this property. For example, if you want to display data from the Tasks list based on the Due Date of the tasks, then use Due Date as the value of this property.
End Date Field Name	Allows you to enter the name of the field in the SharePoint list that contains the end date information. This property is optional. The default value is **E**nd Time, which is the end date field name for the SharePoint calendar list. If the calendar displays data from another type of list, you may have to adjust the value of this property or leave the value of the properly blank if it is not applicable.

Viewed Lists

The Viewed Lists section defines:

- the lists whose data is aggregated in the calendar

- the Dependent Lists for each list. If the Dependent Lists information is provided, the Calendar View checks whether or not there are child records in the Dependent Lists when the user tries to delete an item from the calendar. If there are, the Calendar View does not delete the selected item.

Viewed List contains the following list attributes:

Table 2. Viewed Lists

List Attributes	Description
Advanced Mode	Turn on if you want to edit Viewed Lists in XML format. For example: <Lists> <List SiteUrl="." ListName="wfpub" IncludeSubsites="false" IncludeThisSite="false" IsRollUpList="false" RolledUpListName="Public Library" UseUploadFormInLayoutsFolder="false"> <DependentLists /> </List> </Lists>
Site URL	The URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	The name of the SharePoint list that is edited or displayed by this Calendar View. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list, you can use a single dot (.) as the list name. **NOTE:** This only works if the qCalendarView is contained in the AllItems.aspx. For example, if you are replacing the Microsoft Calendar View in the AllItems.aspx of the Tasks list and you use a single dot as the ListName attribute, the ListName attribute of the qCalendarView ise set to Tasks. If you want to save the list as a template and then use it somewhere else, the name of the new list might not be Tasks and using this relative list name automatically picks up the new list name for the view.
Include Subsites	If selected, the Calendar View searches all the subsites for a list whose name specified in the ListName and aggregate the information from those list. **NOTE:** If you have many subsites, the information may take a long time to aggregate. Use this attribute if you have only a few subsites. You must test this feature in your environment to see whether or not the response comes back in a reasonable amount of time and the request does not time out.
Include This Site	Used in conjunction of the IncludeSubsites attribute. If you set this property to true, the list in the current site is not aggregated by the Calendar View. The current site is the site whose URL is specified in the SiteUrl attribute.
Is Rollup List	Indicates whether or not the list specified by the SiteUrl and ListName attributes contains the Site URLs of the lists to be aggregated instead of the data to be aggregated. If you set this to true, the list specified by the SiteUrl and ListName must have a field that contains the URL information. By default, the name of that field is Site URL. If you use different field name, specify the name using the SiteUrlFieldName attribute below.
Rolled Up List Name	Used in conjunction with the Is Rollup List property, indicates the name of the lists to be rolled up if you check the Is Rollup List check box. If you want to aggregate more than one list from each site specified in the rollup list, you can define more than one List elements with the same rollup list, but different Rolled Up List Name. For example, if you want to aggregate Public Library and Private Library document libraries from each site, you can specify the following:
Site URL Field Name	Used in conjunction with the Is Rollup List property, indicates the field that contains the Site URLs of the lists to be aggregated. This attribute is optional if the field name is Site URL. **NOTE:** The Site URL field must be a single line of text field.

Table 2. Viewed Lists

List Attributes	Description
Active Field Name	Used in conjunction with the Is Rollup List property. The rollup list may contain a Yes/No field to indicate whether or not a particular site should be included in the rollup. This property is optional if the name of this field is Active. **NOTE:** The Active field must be a Yes/No field.
Reset Session Names	Resets (sets to NULL) the value of the session variables whose name is specified in this attribute. You can specify multiple names by separating them with commas. You can reset the session name if you have Multi Persistent Selectors in the target page. Usually, you must reset all but the last persistent selector session values. This ensures that the item that you want to pre-select in the last persistent selector is not filtered out by the previous persistent selector.
Set Session Name	Allows the calendar to store the selected item in the session under the name specified in the attribute. The item is selected when the user clicks a hyperlink created by using the Link To, Link To Target URL, or the Link To Source properties. You can specify this attribute when you have a Persistent Selector web app in the target page and you want that persistent selector to pre-select the item the user chose in this calendar.
Target URL	When the LinktoTargetUrl attribute of a specific column is selected (in the Primary Content page), the data in that column becomes a hyperlink to the URL specified in this attribute. **NOTE:** The Target Url can use the <%field name%> field replacement expression. If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and > respectively. **NOTE:** Use the LinktoTargetUrl attribute if you want each list to have a different URL; for example, when you want to aggregate multiple lists from the same workspace and connect a certain column to the display form of the list. In that case, the URL to the display form of each list can be different.
New Form URL	Indicates the URL where the form to create a new item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the New Item button in the toolbar is clicked. If not defined, the user is redirected to the NewForm.aspx of the list (or Upload.aspx for the document library).
Edit Form URL	Indicates the URL where the form to edit an item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the user clicks Edit Properties in the Context Menu. If not defined, the user is redirected to the EditForm.aspx of the list. Redefining the Edit Form URL is useful if you have different ways of editing an item depending on the current view. For example, in the view for external vendor, you may want to give them an edit form that does not contain all the fields in the list. **NOTE:** The ID and Source HTTP parameters are automatically appended to the Edit Form URL during redirection. This attribute is usually used in conjunction with the qListForm web app.
Display Form URL	Indicates where the URL where the form to display an item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the user clicks View Properties in the Context Menu. If not defined, the user is redirected to the DisplayForm.aspx of the list. Redefining the Display Form URL is useful if you have different way of displaying an item depending on the current view. For example, in the view for external vendor, you may want to give them a display form that does not contain all the fields in the list. **NOTE:** The ID and Source HTTP parameters are automatically appended to the Display Form URL during redirection. This attribute is usually used in conjunction with the qListForm web app.

Optional Content

You can configure the following optional content:

Table 3. Optional Content

Element	Description
Recurrence Field Name	Allows you to enter the name of the field in the SharePoint list that contains the recurrence data. This property is optional. The default value is RecurrenceData, the name of the field for the SharePoint calendar list that contains the recurrence data. If the calendar displays data from another type of list, leave the value of the properly blank. Only the event list can have recurrence data (SharePoint does not allow you to add a new field to the list with Recurrence type).
Display Field Name	Allows you to enter the name of the field in the SharePoint list that contains the title for the item. The default value is Title, which is the name of the field for the SharePoint event list that contains the event title. If the calendar displays data from another type of list, you may have to adjust the value of this property. For example, if you want to display data from the Projects list, you may use Project Name for the value of this property. If you want to display the information from more than one fields, then specify the format in the Display Format property.
Display Format	Allows you to enter the format of the title. You can use the <%FieldName%> field replacement expression to refer to a certain field. The FieldName is case sensitive. This property takes precedence over the Display Field Name property. **NOTE:** For more information, see Display Format on page 14.
Tooltip Field Name	Allows you to enter the name of the field in the SharePoint list that contains the description for the item. The description for the item is displayed as a tooltip when you hover your mouse over an item in the calendar. The default value is Description, which is the name of the field for the SharePoint event list that contains the event description. If the calendar displays data from another type of list, you may have to adjust the value of this property. For example, if you want to display data from the Tasks list, you may use Task Description for the value of this property. If you want to display the information from more than one field, specify the format in the Tooltip Format property.
Tooltip Format	Allows you to enter the format of the tooltip. You can use the <%FieldName%> field replacement expression to refer to a certain field. The FieldName is case sensitive. This property takes precedence over the Tooltip Field Name property.

Display Format

This attribute specifies how the field value is formatted when displayed.

The syntax for the Display Format string is as follow: *{0:FormatString}*. The following are the value of the Display Format attribute grouped by the type of the value to be formatted.

Table 4. Basic Number Formatting

Format	Type	Output (if input is double value 2.34)	Output (if input is integer value 12400)
{0:c}	Currency	$2.34	$12,400
{0:d}	Decimal (whole number)	N/A	12400
{0:e}	Scientific	2.340000e+000	1.240000e+004

Table 4. Basic Number Formatting

Format	Type	Output (if input is double value 2.34)	Output (if input is integer value 12400)
{0:n}	Number with commas for thousands	2.34	12,400
{0:x}	Hexadecimal	N/A	cf90

Table 5. Custom Number Formatting

Specifier	Note	Example	Output (if input is 12400.25)
0	Zero placeholder	{0:00.00}	12400.250
#	Digit placeholder	{0:##.####}	12400.25
.	Decimal point	{0:0.0}	12400.3
,	Thousands separator	{0:0,0}	12,400
%	Percent (Multiplies by 100 and add % sign)	{0:0%}	1240025%

For custom number formatting, you can combine different specifiers. For example: {0:0,0%} will output 1,240,025%.

Table 6. Date Formatting

Format	Type	Output (if input is November 14, 2007 10:34:23 PM)
{0:d}	Short date	11/14/2007
{0:D}	Long date	November 14, 2007
{0:t}	Short time	10:34 PM
{0:T}	Long time	10:34:23 PM
{0:f}	Full date and time	November 14, 2007 10:34 PM
{0:F}	Full date and time (long)	November 14, 2007 10:34:23 PM
{0:g}	Default date and time	11/14/2007 10:34 PM
{0:G}	Default date and time (long)	11/14/2007 10:34:23 PM
{0:M}	Month and day	November 14
{0:r}	RFC1123 date string	Wed, 14Nov2007 10:24:23 GMT
{0:s}	Sortable date string	2007-14-11T22:34:23
{0:u}	Universal sortable, local time	2007-14-11 22:34:23 PM
{0:U}	Universal GMT	November 14, 2007 10:34:23 PM
{0:Y}	Month and year	November, 2007

Table 7. Custom Date Formatting

Specifier	Note	Example	Output (if input is November 14, 2007 10:34:23 PM)
dd	Day	{0:00.0}	14
ddd	Day name	{0:##.####}	Wed
ddd	Full day name	{0:0.0}	Wednesday

Table 7. Custom Date Formatting

Specifier	Note	Example	Output (if input is November 14, 2007 10:34:23 PM)
f,ff,...	Second fraction	{0:fff}	230
gg	Era	{0:gg}	A.D.
hh	2 digit hour	{0:hh}	10
HH	2 digit hour in 24 hour format	{0:HH}	22
mm	Minute 00-59	{0:mm}	34
MM	Month 01-12	{0:MM}	11
MMM	Month abbreviation	{0:MMM}	Nov
MMMM	Full month name	{0:MMMM}	November
ss	Seconds 00-59	{0:ss}	23
tt	AM or PM	{0:tt}	PM
yy	Year, 2 digits	{0:yy}	07
yyyy	Year	{0:yyyy}	2007
zz	Timezone offsets, 2 digits	{0:zz}	-05
zzz	Full timezone offsets	{0:zzz}	-05:00
:	Separator	{0:hh:mm:ss}	10:34:23
/	Separator	{0:dd/MM/yyyy	14/11/2007

Search/Filter Panel

The Search/Filter Panel allows you to define the panels for search, filter, and replace in the web app.

The Search/Filter Panel contains the following elements:

Table 8. Search/Filter Panel

Element	Description
Searched Fields	See Searched Fields on page 17.
Show Search All Fields Control in Search Panel	Determines whether the Filter panel should display the control to search all fields in the list. When set to true, the following control is shown in the Filter panel: The Search All Fields Control allows you to do the following: • Combine the search all fields functionality with other search criteria that has been entered for specific fields. When the search all fields criteria is entered, the Filter panel will construct a filter expression with the "Contain" operator for the following fields in the list: Single line of text, Multiple lines of text, Choice, Lookup (only Lookup to a Single Text field and Lookup to a Number field are supported), Person or Group and Hyperlink or Picture. If the list contains a Lookup to Number field, Search All Fields will not work for negative numbers for that field. The Filter panel will use the entire keywords as the value to be searched. Therefore, if you enter "High Priority" in the search all fields control and perform the search, it will find the following sentence: 'This is a high priority task' However, it will not find the following sentence: 'The priority is not always high'

Table 8. Search/Filter Panel

Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.
Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.

Searched Fields

This property defines what fields are displayed in the Filter panel. If defined, the calendar view displays the Filter button in the toolbar. To disable the search feature in the calendar view, you can leave this property blank. If defined, the calendar view displays Filter or Search menu items under the Actions button in the toolbar. To disable the search feature in the calendar view, you can leave this property blank.

You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

NOTE: For the Number type field, the “Contain” operator is not supported for negative numbers, and is not available for the following fields: Lookup to DateTime field, Lookup to Calculated field, and Lookup to ID field.

Specify the following field properties:

Table 9. Searched Fields

Field Property	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format.
Field Name	Indicates the element you are editing.
Title	Displays title for the field. The value can be a plain string or an encoded HTML string.
Description	Describes the field. This is useful if you want to give a short instruction or explanation about the field.
Default Value	Defines the default value for the field. You can define a text, a number or a date. A date value must be specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ, for example: midnight of February 14, 2002 is 2002-02-14T00:00:00Z.
Default Operator	Defines the default operator for the field.
Fixed Operator	Defines the operator for the field. If specified, the list to select the operator for this field is turned off.
Use People Editor	Enables you to enter any user information that is in your directory service. If you set this to True and the field to be searched is a People and Group field, the Filter panel shows the People Editor control for entering the search criteria.
Column Count	Defines the number of columns for the options in a multi-choice field or in a choice-and-lookup field if the Enable Multi Choice attribute is set to True. This is useful in case your choice or lookup fields have too many choices and you want to break the choices into several columns to minimize the vertical scrolling in your form.
Enable Multi Choice	If set to True, allows you to select multiple options for the choice-and-lookup field. Therefore, the user can specify a condition like "A or B". This attribute is ignored by other field types. To search a cross-site lookup field, you must specify one or more List elements inside the Field element. The cross-site lookup field is displayed as two drop downs.
Sort Field	Defines the field that is used to sort the value in the list menu. The field name is case sensitive.

Table 9. Searched Fields

Field Property	Description
Sort Order	Allows you to sort the values in ascending or descending order.
AutoPostBack	When set to true, this attribute causes the Filter panel to refresh when the user changes the selection in a lookup field or cross-site lookup field. You need to set AutoPostBack to true if this field is a lookup or a cross-site lookup field and it is being used to filter another lookup or cross-site lookup field in the Filter panel.
Parent Field	Defines another lookup or cross-site lookup field that is used to filter this field.
Parent Filter Field Name	Defines the field in the parent field that is used to filter this field. It is the primary key in the list that is used in the lookup or cross-site lookup field.
Filter Field Name	Defines the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.
Display Field Name	Shows the name of the field whose value is displayed in the list menu. The field name is case sensitive. Use this attribute instead of the Display Format attribute if you only want to display a single field in the list menu.
Display Format	Indicates the format of the value that is displayed in the list menu. Define this attribute instead of the Display Field Name attribute if you want to display multiple fields in the list menu. You can use the field replacement expression <%Field%> to refer to a field. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Searched Fields editor in the List View Editor, where the Editor encodes the characters automatically. **NOTE:** For more information, see Display Format on page 14.
Site URL	Indicates the Site URL of the field. You can use an absolute or relative URL.
List Name	Indicates the name of the List. The field name is case sensitive.
Site Name	Indicates the name of the site specified in the Site URL. This is used in case you have multiple lists. In this case, the first list menu to select the list displays as "List Name in Site Name". You can use any name for the Site Name. It does not have to match the real title of the Site.

Filtering

The Filtering page allows you to use CAML filters to dynamically filter records or use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 10. Filtering

Element	Description
CAML Filter	Allows you to specify the CAML (Collaboration Application Markup Language) query expression to filter your data. CAML is an XML-based query language. The CAML Filter will only be applied to the data. The filter will not be applied to the responses. For more information, see CAML Filters on page 19.
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

CAML Filters

CAML Filter expressions help filter data by providing a way to link multiple conditions.

Turn Advanced Mode on if you want to edit CAML Filters in XML format.

CAUTION: If the web app supports both CAML Filter and Complex Filter, use the CAML Filter. The CAML Filter processes data in the SQL Server, so the data is transferred to the Web Server. The Complex Filter processes data in the Web Server. If you specify both CAML Filter and Complex Filter, the CAML Filter is processed first.The Complex Filter remains for backward compatibility reasons.

The operators and field names in the CAML Filter are case sensitive. For the field name, use the internal name of the field.

NOTE: This is different from the Complex Filter that uses the Display Name.

The Boolean operators <And> and <Or> are supported in CAML Filter. These operators are used to combine two conditions. They must contain exactly two conditions. For example:

<And><Eq>...</Eq><Gt>...</Gt></And>

If you need to link more than two conditions, such as Condition1 And Condition 2 And Condition3, you must nest these operators. For example:

<And><Eq>...</Eq><And><Gt>...</Gt><Lt>...</Lt></And></And>

You can specify conditions for CAML Filter in either of the following ways:

- <IsNull><FieldRef Name="InternalFieldName"/></IsNull>

  This returns all entries whose field specified by InternalFieldName does not contain any value.

- <IsNotNull><FieldRef Name="InternalFieldName"/></IsNotNull>

  This returns all entries whose field specified by InternalFieldName contains values (including empty string value).

- <Operator><FieldRef Name="InternalFieldName"/><Value Type="TypeName"> ValueToCompare</Value><Operator>

  Where:

Value	is
Operator	One of the following: • Eq — equals to operator • Neq — not equals to operator • Gt — greater than operator • Geq — greater than or equals to operator • Lt — less than operator • Leq — less than or equals to operator • Contains — a string operator to check whether a string contains the specified value • BeginsWith — a string operator to check whether a string begins with the specified value

Value	is
TypeName	One of the following: • Text • Integer • Float • DateTime **NOTE:** When you compare a DateTime value, only the date is being processed. The time part is ignored by SharePoint
ValueTo Compare	One of the following: • String • Number • Date/Time value in the format — YYYY-MM-DDTHH:MM:SSZ • Date/Time value in the format : - <Today OffsetDays="number"/> — today's date with optional number of days to offset the today's date. You can use the OffsetDays attribute to do date range filter. The OffsetDays attribute value must be a number (both positive and negative numbers)) - <UserID/> — the current user. This value only works if the field is a user lookup field)

Using CAML Filters

CAML filters allow you set the following variables to validate text fields:

Table 11. CAML Filter variables

Variable	Description
<%Now%>	Current time and date
%FilePath%>	Complete path for a file in a document library
<%CurrentUserName%>	Display name of the current user
<%CurrentLoginName%>	Login name of the current user
<%CurrentUserID%>	ID of the current user, for example: 1
<%CurrentUserEmail%>	Email address of the current user

Variables work if you store either the user name, login name, user ID, or email address in a Single Line of Text field. qListForm and qSIListForm use variables in the Fixed Value or Form Component Behavior sections.

For a field of type Single-line-of-Text or Multi-line Plain Text, the Operator drop-down menu contains the value, Matches, as an operator for comparing the field value to a regular expression.

Examples of common regular expressions:

- Match beginning of a string: ^Test matches any string that starts with “Test”.
- Match ending of a string: test$ matches any string that ends with “test”.
- Telephone number: ^\d{3}-\d{3}-\d{4}$ matches any phone number in the format of 555-555-5555.

Using Dynamic Variables

The CAML Filter can also be used with dynamic variables. The Value element in the CAML Filter can come from various sources such as an HTTP Parameter and Session.

NOTE: If you want to use Advanced Mode, you can extend the value element in the CAML filter. Some examples are:

- to enter the value in the Value element - `<Value Type="Text">Some Text</Value>`
- to retrieve the value from an HTTP parameter - `<Value Type="Text" Source="HttpParameter" SourceName="NameOfHTTPParameter"/>`

  to retrieve the value from the Session variable - `<Value Type="Text" Source="Session" SessionName="SessionName" SourceName="NameOfHTTPParameter" SiteUrl="url" ListName="ListName"/>`

  to compare values of two fields - `<Value Type="FieldName" Source="Field">Editor</Value>`

Complex Filters

Complex Filter provides a powerful way to concatenate multiple conditions.

CAUTION: If the web app supports both CAML Filter and Complex Filter, use the CAML Filter. The CAML Filter processes data in the SQL Server, so the data is transferred to the Web Server. The Complex Filter processes data in the Web Server. If you specify both CAML Filter and Complex Filter, the CAML Filter is processed first. The Complex Filter remains for backward compatibility reasons.

The date and time value must be enclosed in # and specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ. For example, midnight of February 14, 2002 is #2002-02-14T00:00:00Z#.

The operators and field names in the Complex Filter are case sensitive. For the field name, use the display name of the field (include all spaces if there are any).

The following Boolean operators are supported in Complex Filter:

- NOT – This is used to negate a condition. For example, to get all employees whose name does not start with M, they syntax is: NOT Employee Name LIKE 'M%'
- AND and OR – This is used to concatenate two conditions. The AND operator takes precedence over the OR. Use parentheses to change the precedence of the operator.

  For example, to get all employees in the Accounting or IT department and hired after 1/1/2004: (Department='Accounting' OR Department='IT') AND Hired Date>#2004-01-01T00:00:00Z#

Specify conditions for Complex Filter is specified in one of following ways:

1 FieldName IS NULL

  This will return all entries whose field specified by FieldName does not contain any value.

  Some entries contain an empty string value ("") and their display is indistinguishable from the entries with a NULL value. If you want to return such entries, use FieldName='' as the filter expression.

2 FieldName IS DBNULL

  This will return all entries whose field specified by FieldName contains DBNull value. It is tricky to determine whether a field is empty, contains null value or contains DBNull value. It all depends on the field type and the type of back end system that you are dealing with. Therefore, try each one ("fieldName IS NULL", "fieldName IS DBNULL" or "fieldName=""") in order to identify which one is the appropriate option for your needs.

3 FieldName IS NOT NULL

  This will return all entries whose field specified by FieldName contains values (including empty string value).

4 FieldName comparison-operator FieldExpression

  Comparison operator is one of these: =, <> (not equal), <, >, <=, >=,

  LIKE FieldExpression can be one of the following:

- String – A string is enclosed with single quote; for example 'Accounting'. A string can contain wild-card character % or * when used in conjunction with the LIKE operator. For example: 'M%', 'M*'. A wild-card character is not allowed in the middle of a string. Therefore, this expression is illegal: 'Te*xt'
- Numbers – Numbers are not enclosed. For example: 20, 20.5, 0.5. If you enclose a number with a single quote, it is treated as string.
- Dates – For example: February 5, 2005 11:50 PM is #2005-02-05T23:50:00Z#.
- [ME] – This expression is replaced with the name of the currently logged-in user.
- [TODAY] – This expression is replaced with midnight of today's date.
- [NOW] – This expression is replaced with the current date and time.
- Date function – The following date functions are supported: AddSeconds, AddMinutes, AddHours, AddDays, AddMonths and AddYears. Their syntax is DateFunction(dateValue, number). For example: AddDays([TODAY], 7) adds 7 days to today's date

The following are some examples of the complex filter:

1 All my current task that are due within 7 days

```
PerformedBy=[ME] AND DueDate>=[TODAY] AND DueDate<=AddDays([TODAY], 7)
```

2 All unassigned tasks that are due within 3 days

```
PerformedBy IS NULL AND DueDate>=[TODAY] AND DueDate<=AddDays([TODAY], 3)
```

3 All overdue tasks

```
DueDate<[TODAY]
```

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Navigation
- Views

Actions

The list form has some pre-defined actions, such as Save, Delete, Copy or Move. You can also write your own custom action and hook it up with the list form.

The Actions page contain the following elements:

Table 12. Actions

Element	Description
Custom Actions	For more information, see Custom Actions on page 22.

Custom Actions

This property enables you to define additional buttons in the toolbar or context menu item in the context menu. You can program that button or context menu item to do a series of actions. The List Form supports some built-

in actions. However, you can write your own custom action using one of the .NET languages, compile it, and call it by the List Form. See Custom Action Help on page 375 to see how to write your own custom actions.

NOTE: The toolbar button affects all the items that are selected in the List Form. The context menu item affects only the item that is being right-clicked regardless of how many items are selected in your List Form.

Here are some ways that you can use this functionality:

- Add a custom toolbar button called "Assign All to Me" that will assign all of the selected tasks in the List Form to me.
- Add a custom toolbar called "Approve" that will change the status of all of the selected expense items to Approved.
- Create a custom context menu item called "Publish" that will move the right-clicked document into another document library.
- Create a custom context menu item or toolbar item to start a workflow.
- With the ability to write your own custom action, you can virtually do anything to the data when you click the custom button that you define.

NOTE: The custom action in the List Form does not support the Save action.

Table 13. Custom Actions

Element	Description
Advanced Mode	Turn on if you want to edit Custom Actions in XML format: <CustomActions> <Toolbar> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </Toolbar> <ContextMenu> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </ContextMenu> </CustomActions>

Table 13. Custom Actions

Element	Description
IsSeparator	Allows you to set the item as a separator.
ID	Allows you to enter a unique ID that will identify the item. Use a descriptive identifier to configure the action item with the editor.
Text	Allows you to enter how the action item is displayed in the toolbar.
Text Resource ID	Allows you to define this property if you support a a multi-lingual site. This attribute defines the identifier of the string in the Resource List that is used as the title of the Web app. The Text Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the value in the Text attribute is used.
Prompt Text	Allows you to prompt the user to click the toolbar button or the context menu item.
Prompt Text Resource ID	Allows you to define this property if you support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the title of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Access Key (Toolbar Only)	Allows you to define one character from the Text attribute that becomes the access key to this toolbar button or context menu item. For example, if you define a letter T as the access key, you can press ALT+T and the browser will put the focus on this button or context menu item. If there are multiple elements on the page with the same access key, you can repeat ALT+T repeatedly until you get the focus on this toolbar button or context menu item.
Position	Allows you to set the position of the button in the toolbar. The index starts with 0.
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot

When you add an action, you can configure the following:

Element	Description
Name	An optional element which allows you to identify a given action in order to access it from another action. You can refer to this action from the GoToURL action and from ICustomActionEx Interface.

Type	Allows you to determine the type of the action. Here are the options:
	• Delete — deletes the item.
	• GoToURL — redirects the user to a specific URL. You must specify the URL and where you want the URL to open. You must select from one of the following source parameters:
	  • Input - the current user information as the value of the parameter
	  • Session - the name of the session variable where the value comes from when the source is set to Session
	  • HttpRequest - the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter.
	  • ListItem - the value of the parameter is a list item or row
	  • RowFromAnotherWebApp — the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. There are two types of action that can produce an output: an action with Type of ExecuteOperation, and an action with Type of Custom that points to custom action implementation of ICustomActionEx Interface. You do that by defining the SourceName attribute of the action. This is the syntax of the SourceName attribute when you use ResultFormAction source: <ActionName>.<ResultType>[.Name], where ActionName refers to the Name attribute of the action that produces the output, ResultType can be OutParameter (if the action result is returned through one of the out or inout parameter) or RawData - (if the action result is returned as an object). Name is optional. It further designates the object we want to use for the parameter. You do not have to specify the Name when the ResultType is RawData. However, if the ResultType is OutParameter, this name specifies the name of the out or input key value pair.
	  • ResultFromAction - the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem
	  You must define a source name (where in the source you want to get your information from), name (the name of the parameter that is appended to the URL you specified), and Session (the name of the session variable where the value comes from when the source is set to Session)
	• GoToSource — redirects the user to the URL specified in the Source HTTP parameter. The URL to the page must look like: http://...?Source=URL for this option to work.
	• StartWorkflow — starts the specified workflow in the Workflow Name drop-down field. You must select a Workflow name.
	• ReturnToMasterChart — returns the user to the master chart page. You use this action type if this web app is located in the drill down page.
	• Custom — implements your own custom action and call it with this action type. Enter a Class name that implements the ICustomActionEx or ICustomAction interface, or select a class from the drop-down list, if available.

Navigation

The Navigation page allows you to configure how and where the user will navigate in the web app. It contains the following elements:

Table 14. Navigation

Element	Description
LinkTo	Allows you to turn the field into a hyperlinked column to the specified URL. The URL can be an absolute or relative URL. The LinkTo can use the <%field name%> field replacement expression. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively. If you use a relative URL, the URL is appended to the site URL of the target site. For example, specify "Lists/Calendar/EditForm.aspx?ID=<%ID%>" as the value of this property. If the user clicks an event that comes from the Calendar list in Workspace A, whose site URL is "http://mydomain/sites/mysite", the user is directed to http://mydomain/sites/mysite/Lists/Calendar/EditForm.aspx?ID=23 (this assumes that the user clicks the event with ID=23). When the calendar view points to a document library, you can use a special field replacement expression <%FilePath%> to get a complete path for the file.
LinkToTargetURL	Allows you to make the field value a hyperlink to the URL specified in the TargetUrl attribute in the Viewed Lists property. Use the LinkToTarget URL when you aggregate lists with different name. In that case, specify a different TargetUrl for each list in the Viewed Lists property and the calendar view redirects the user to the correct URL depending on the list from where the clicked item comes.
Link To Source	Allows you to make the field value a hyperlink to the URL specified in the Source HTTP parameter of the current request. For this option to work, the current page URL must look like: http://.....?Source=.... When do you use this attribute as opposed to the Link To or the Link To Target URL attributes? A typical case is when the URL for the hyperlink is dynamic. This could be because it contains dynamic parameters or the URL is different depending on the referral page. Use the LinkToSource when you want to make the URL in the link dynamic. In that case, you can pass in the URL for the link into the HTTP parameter of your page. For example, say that we have a page where the user can select a particular contact from the Contacts list. This page might be useful for several cases in your application and you cannot hard code the URL because you may want the user to be redirected to different URL depending where they are in the application. In that case, you can specify the URL for the hyperlink in the URL of the page.

Views

The Views page allows you to set views so the user to view the data in a calendar.

The Views page contains the following element:

Table 15. Views

Element	Description
Search Session Name	The calendar will store the search criteria, last selected folder, sort criteria, and other list view dynamic settings in the session variable with this name. The calendar also use the Search Session Name to communicate those settings to qExcelViewer and qChartView located in the page whose URL specified in the Excel Viewer URL or Chart Viewer URL property, respectively. Therefore, the Search Session Name in those web apps must be set to the same value as the session name in this calendar.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Toolbar
- Legend
- Calendar
- Context Menu
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 16. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 17. Toolbar

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show New Button	Allows you to display the New button.
Show Connect To Outlook Button	Allows you to display the Connect to Outlook button.
Show Alert Me Button	Allows you to show the Alert Me button in the toolbar.

Legend

The Legend page allows you to configure the appearance of the legend. It contains the following:

Table 18. Legend

Element	Description
Legend Title	Allows you to enter a title of the legend.
Legend Color Appearance	Allows you to select the list title and color and font color for a list that your selected in Viewed Lists.
Show Legend	Allows you to show the legend.
Legend Show Mode	Allows you to select where to position the legend.
Legend Show User Groups	Allows you to select the SharePoint members who can view the legend.
Legend Hide User Groups	Allows you to select the SharePoint members who cannot view the legend.

Calendar

The Calendar page contains the following:

Table 19. Calendar

Element	Description
Skin Name	Allows you to enter the skin name for the calendar view.
Calendar Width	Allows you to enter the width of the calendar view in pixels. The default is 700.
Calendar Width Unit	Allows you to enter unit of measure for the calendar width.
Calendar Height	Allows you to enter the height of the calendar view in pixels. The default is 500.
Row Height	Allows you to specify the row height for each day/week view and the appointment for the month view in pixels.
Month View Visible Appointments Per Day	Allows you to enter the number of appointments visible per day when in the month view. The default is 3.
Overflow Behavior	Allows you to o scroll or expand the page when the calendar view is not large enough to display all the data.
Default Calendar View	Allows you to set the default view for the Calendar web app. This can be either Day, Week or Month.
Enable Day View	Allows you to switch to view one day at a time in the Calendar web app
Enable Week View	Allows you to switch to view one week at a time in the Calendar web app.
Enable Month View	Allows you to switch to view one month at a time in the Calendar web app.
First Day of Week	Allows you to determine the first day that is displayed in the week view and month view. The default value is Sunday.
Last Day of Week	Allows you to determine the last day that is displayed in the week view and month view. The default value is Saturday.
Allow Delete	Allows you to determine whether or not the delete button should be shown on every appointment in the calendar. The delete button appears when you hover your mouse over the appointment. If you set this property to false, the delete button is not shown during the mouse over. By default, Allow Delete is set to true.

Table 19. Calendar

Element	Description
Appearance Field Name	Allows you to determine the name of the field whose values is used to determine the color of the appointment. This allows appointments to be displayed in different colors based on the value in this predefined field. For example, to display all appointments in conference room 5 with red and all appointments in conference room 6 with blue, the Appearance Field Name would be "Location". There are 2 additional fields that you can use as Appearance Field Name. These fields are not part of the list but used internally by the Calendar View: • Workspace URL — this is the URL of the site that contains the containing list. When using the Workspace URL in the Appearance Field Name, you need to specify the absolute URL of the site in the FieldValue attribute in the Color Appearance property, for example: http://www.mysite.com/site1 • List Name — this is the name of the list that contains the appointment. When using the List Name in the Appearance Field Name, you need to specify the name of the list in the FieldValue attribute in the Color Appearance property, for example: Project Calendar
Color Appearance	Allows you to determine the color of the appointment for a certain value in the field specified by the Appearance Field Name. Turn on Advanced Mode if you want to edit Color Appearance in XML: <Appearance> <AppointmentAppearance FieldValue="fieldValue" BackgroundColor="color" FontColor="color" /> <AppointmentAppearance FieldValueRange="number-number" BackgroundColor="color" FontColor="color" /> </Appearance> For example: <Appearance> <AppointmentAppearance FieldValue="Conference Room 5" BackgroundColor="Red" FontColor="Black" /> <AppointmentAppearance FieldValue="Conference Room 6" BackgroundColor="Blue" FontColor="Orange" /> </Appearance> The following are the attributes of the Color Appearance property: • FieldValue — specifies the value for the field. • BackgroundColor — is optional and it specifies the background color of the appointment for the specified value in the FieldValue attribute. The color can be specified as a well-known color such as white, black, cyan, lightGray, as a RGB value such as 255, 255,255, or you can specify it as #FFFFFF, #CCDDEE. • FontColor — is optional and it specifies the font color of the appointment for the specified value in the FieldValue attribute. The color can be specified as a well-known color such as white, black, cyan, lightGray, as a RGB value such as 255, 255,255, or you can specify it as #FFFFFF, #CCDDEE. The FontColor attribute is ignored if you specify a URL in the Link To property or set the Link To Source or Link To Target URL properties to true. • FieldValueRange — Instead of using the FieldValue attribute, you can also use this attribute to determine a range of value, such as 0-100, 101-200. FieldValueRange can only be used if you specify the name of a Number or Currency field in the Appearance Field Name property.

Context Menu

The Context Menu page contains the following:

Table 20. Context Menu

Element	Description
Enable Context Menu	Allows you to show the context menu.
Context Menu Skin Name	Allows you to set he skin name for the context menu.
Show View Properties	Allows you to show the View Properties menu item in the context menu.
Show Edit Properties	Allows you to show the Edit Properties menu item in the context menu.
Show Manage Permissions	Allows you to show the Manage Permissions menu item in the context menu.
Show Alert Me	Allows you to show the Alert Me menu item in the context menu.
Show Workflows	Allows you to show the Workflows Properties menu item in the context menu.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 21. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 22. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.

Table 22. Other

Element	Description
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 23. Security

Element	Description
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 24. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
View Properties Context Menu Text Resource ID	Allows you to set the text for the View Properties context menu.
Edit Properties Context Menu Text Resource ID	Allows you to set the text for the Edit Properties context menu.
Manage Permissions Context Menu Text Resource ID	Allows you to set the text for the Manage Permissions context menu.
Alert Me Context Menu Text Resource ID	Allows you to set the text for the Alert Me context menu.
Workflows Context Menu Text Resource ID	Allows you to set the text for the Workflows context menu.
New Button Text Resource ID	Allows you to enter a text resource ID for the New button.
Connect to Outlook Button Text Resource ID	Allows you to enter a text resource ID for the Connect to Outlook button.
Alert Me Button Text Resource ID	Allows you to enter a text resource ID for the Alert Me button.
Filter Button Text Resource ID	Allows you to enter a text resource ID for the Filter button.

3

qCaptionDisplay

- Overview
- qCaptionDisplay Pages

Overview

The qCaptionDisplay is a web app that displays a message from a SharePoint list. The text for the message is identified with a Caption ID.

Storing the message in a list, as opposed to hard coding it in a page, increases the site maintainability. This is useful if the site is replicated. If you need to make a change to the message, you only have to do it in one place; just change the list. The list usually resides outside of the replicated site.

You can localize the title and the messages displayed by the caption display. You can define different Title for different cultures using the Resource List and the Title Resource ID properties. The culture for the page can be defined by appending the Culture HTTP parameter to the page URL. For example:

http://hostname/sites/sitename/default.aspx?Culture=en-US

To use the caption display, you must first define a source list for the captions. The SharePoint list for the caption display should contain these fields:

- Caption ID – This field is mandatory. It is a single-line text field that contains the identifier for the caption.
- Caption – This field is mandatory. This is a multiple-line text field that contains the message.
- Culture – This field is optional. You must have this field if you want to have different messages for a different culture. You can define different captions with the same Caption ID, but different Culture. You must leave the value for the default culture blank. For example:

Table 1. Culture

Caption ID	Culture	Caption
sites.mysite.default.aspx		Welcome to my site
sites.mysite.default.aspx	id-ID	Selamat datang ke situs saya

NOTE: Make sure that the Allow rich HTML text in the Caption field is set to No.

If your list uses different name for the fields, define the name in the Caption ID Field Name, Caption Field Name and Culture Field Name properties.

NOTE: The Caption field can contain plain text or a piece HTML.

You can create the source by selecting AgreeYa Caption Display List (under Custom Lists in SharePoint). This automatically creates a list that contains all of the above fields.

Define a convention for the Caption ID value that makes it easy for you to identify where the message is used. For example, use the URL of the page, remove the host name from the URL and replace all / with . (period). Therefore, if the page URL is http://hostname/sites/mysite/default.aspx, the Caption ID is sites.mysite.default.aspx.

qCaptionDisplay Pages

You can configure this web app through its tabs that are accessible through ezEdit. qCaptionDisplay contains the following tabs:

- Content Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 2. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app. This field is mandatory.
Site URL	Allows you to enter the URL to the site that contains the list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory.
List Name	Allows you to enter a list name. The name is case sensitive. If the name of the list contains spaces, include the spaces in the List Name.
Caption ID	Allows you to enter the identifier that locates the message in the list.
Caption ID Field Name	Allows you to enter the name of the field containing the caption ID. The default value is User Caption ID.
Caption Field Name	Allows you to enter the name of the field containing the message. The default value is Caption.
Culture Field Name	Allows you to enter the name of the field containing the Culture. The default value is User Culture.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 3. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 4. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 5. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.

Table 5. Other

Element	Description
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 6. Security

Element	Description
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 7. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

4

qCascadingMenu

- Overview
- qCascadingMenu Pages
- qCascadingMenu Procedures

Overview

The qCascadingMenu lets you create complex menus that occupy minimum screen real estate.

qCascadingMenu offers the ability to:

- display items from multiple SharePoint lists. Each list can contain multiple top-level items.
- define a static FilterExpression using a Complex Filter expression. The ability to filter enables you to define the items to be displayed in your menu.
- show or hide the top-level items that come from a certain list based on the site group membership of the currently logged-in user.
- hide menu items whose target URLs are not accessible by the current user.
- define an icon for each menu item, and define the target frame for the target page.
- localize the title and the menu item text. You can define different Title for different cultures using the Resource List and the Title Resource ID properties. Your can define the culture appending the Culture HTTP parameter to the page URL. For example: http://hostname/sites/sitename/default.aspx?Culture=en-US

To configure this web app, we recommend that you use the AgreeYa Menu List custom list template. Use the template to define a source list for the menu items on a SharePoint site. For information on how to create the source list, see Configuring qCascadingMenu on page 45. This automatically creates a list which contains the following columns by default:

Table 1. List Columns

Column	Description
Text	Provide the text for the menu item.
Menu ID	Provides the ID for the menu item.
Parent Menu ID	Provides the ID of the menu item that is the parent of this menu item.
Target Url	Provides the target URL for the menu item. **NOTE:** This is not a Hyperlink field because Hyperlink field does not let you use a relative URL.
Target	Indicates where to open the target page. Specify **_blank** to open the page in a new window. Leave the target column empty to redirect the current window to the target URL.
Icon Url	Provides the URL to the icon for the menu item.
Access Key	Indicates the shortcut key to activate the menu item. You can activate the menu item by pressing ALT+Access Key Character.
Culture	Indicates the culture for this menu item

You must map these columns in the source list to the corresponding field names in the Configuration section in the Web app. For more information on the Configuration section, see Configuration on page 40. For more information on how to configure the qCascadingMenu Web app, see Configuring qCascadingMenu on page 45.

qCascadingMenu Pages

You can configure this Web app through its tabs that are accessible through ezEdit. qCascadingMenu contains the following tabs:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 2. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Configuration	See Configuration on page 40.

Configuration

This property defines the source list and behavior of the cascading menu. The Configuration element can contain one or more Menu elements. Each menu element can read a different source.

You can define the following in the Configuration section:

Table 3. Configuration

Field	Description
Advanced Mode	Turn on Advanced Mode if you want to edit Configuration in XML format: <Configuration> <Menu SiteUrl="url" ListName="listName" FilterExpression="filterExpression" TextFieldName="Text" MenuIdFieldName="Menu Id" TargetUrlFieldName="Target Url" TargetFieldName="Target" IconUrlFieldName="Icon Url" AccessKeyFieldName="Access Key" CultureFieldName="Culture" ShowUserGroups="Group1, Group2" HideUserGroups="Group1, Group2" CheckUserAccess="true/false"/> </Configuration>
Site URL	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	Allows you to enter the name of the list. The name is case sensitive. If the name of the list contains spaces, include the spaces in the List Name.
Filter Expression	Allows you to filter the data. The Complex Filter Expression to filter the data. For more information, see Complex Filters on page 21.
Text Field Name	Allows you to set the field that contains the text for the menu item.
Menu ID Field Name	Allows you to set the name of the field that contains the menu ID for the menu item.
Parent Menu ID Field Name	Allows you to set the name of the field that contains the parent ID for the menu item.
Target URL Field Name	Allows you to set the name of the field that contains the indicator of where to open the target URL.
Target Field Name	Allows you to set the name of the field that contains the indicator of where to open the target page.
Icon URL Field Name	Allows you to set the name of the field that contains the icon URL for the menu item.
Culture Field Name	Allows you to set the name of the field that contains the culture for the menu item.
Access Key Field Name	Allows you to set the name of the field that contains the access key for the menu item.
Show User Groups	Allows you to show groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Hide User Groups	Allows you to hide groups where the user is member of one of the SharePoint groups listed. Separate site group names with commas.
Check User Access	Allows you to show only the menu items that point to the workspace which the current can access. **NOTE:** Performance can be affected when checking the access for each menu item, especially for large menus. Also, make sure that every menu item points to a page in a SharePoint site that is reachable from the current site (as opposed to any external site such as MSN, Google)

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior Page contains the following:

- Navigation

Navigation

The Navigation page allows you to configure how and where the user will navigate in the web app. It contains the following elements:

Table 4. Navigation

Element	Description
Target URL Relative to Master Page URL	Allows you to append the value of the target URL to the URL of the master page. By default, this property is set to true to maintain backward compatibility with the existing applications who assumed that the relative URL is appended to the relative URL of the master page.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Menu
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 5. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Menu

The Menu page allows you to configure the appearance of the menu. It contains the following:

Table 6. Menu

Element	Description
Skin Name	Allows you to enter the skin name for the menu.
Menu Flow	Allows you to select if you want the menu flow horizontal or vertical.
Vertical Flow Width	Allows you to set the width if your menu flow is vertical.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 7. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height

Table 7. Layout

Element	Description
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 8. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 9. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 10. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

qCascadingMenu Procedures

You can perform the following procedures using qCascadingMenu:

- Configuring qCascadingMenu

Configuring qCascadingMenu

To configure qCascadingMenu

1 Create a source list from AgreeYa Menu List in SharePoint. The source list for the cascading menu will contain the following fields:

- Text - This field is mandatory. This is a single line of text field that provides the text for the menu item.
- Menu Id - This field is mandatory. This is a single line of text field that provides the ID for the menu item.
- Parent Menu Id - This field is mandatory. This is a single line of text field that provides the parent ID for the menu item.
- Target Url - This field is optional. This is a single line of text field that provides the target URL for the menu item. Please note that this is not a Hyperlink field because Hyperlink field does not let you use a relative URL.
- Target - This field is optional. This is a single line of text field that indicates where to open the target page.
- Icon Url - This field is optional. This is a single line of text field that provides the URL to the icon for the menu item.
- Access Key - This field is optional. This is a single line of text field (one character) that indicates the shortcut key to activate the menu item. You can activate the menu item by pressing ALT+Access Key Character.
- Culture - This field is optional. This is a single line of text field that indicates the culture for this menu item.

2 Create a top-level menu. Click **New Item** to add information to your source list.

3 Create an entry in the list with blank Parent Menu Id, for example:

Table 11. Example of cascading menu list that contains two different cultures and invariants

Text	Menu Id	Parent Menu Id	Target Url	Target	Icon Url	Access Key	Culture
Public Web Sites	01					P	
Web Sites untuk Publik	01					W	id-ID
Microsoft®	01.01	01	http://www.microsoft.com	_blank	search.gif	M	
Microsoft	01.01	01	http://www.microsoft.com	_blank	search.gif	M	id-ID
Google®	01.02	01	http://www.google.com	_blank	search.gif	G	
Google	01.02	01	http://www.google.com	_blank	search.gif	G	id-ID
Other Places	01.03	01				O	
Situs Lain	01.03	01				S	id-ID
CNN	01.03.01	01.03	http://www.cnn.com			C	

Table 11. Example of cascading menu list that contains two different cultures and invariants

CNN	01.03.01	01.03	http://www.cnn.com			C	id-ID
ABC News	01.03.02	01.03	http://www.abcnews.com			A	
ABC News	01.03.02	01.03	http://www.abcnews.com			A	id-ID

The cascading menu can also read any type of list that contains at least the first four fields: Text, Menu Id, Parent Menu Id and Target Url.

NOTE: If the name of the fields is not specified, you must define the field name mapping in the Configuration property.

4 Add qCascadingMenu to your site collection page.

5 Open **ezEdit**.

The Primary Content page opens by default.

6 From the Configuration section, select the source list created in SharePoint, and click **OK**.

7 Click Edit next to the list name.

8 For each field name, select the corresponding column name (from the source list created in SharePoint). For example, for Text Field Name, select Text; for Menu Id Field Name, select Menu Id. Click **OK**.

9 If needed, configure the elements in the other tabs.

10 When done configuring each tab, click **OK**.

5

qChartView

- Overview
- qChartView Pages
- qChartView Procedures

Overview

qChartView aggregates data from one or more SharePoint lists and displays it in different chart types.

qChartView has the following features:

- Different chart types including multi series chart, combination chart, 2D and 3D charts.
- Ability to display data from multiple lists, even when the lists are in different sites, site collections or web applications (as long as they are in the same configuration database).
- Ability to customize the look of the chart
- Ability to display one or more trend lines in the chart
- Dual Y Axis support, making your charts more readable when the minimum and maximum values in your data series are very different
- Ability to generate multiple data series based on dynamic data
- Ability to create drill down charts.
- Dynamic language switching and Flash and JavaScript (HTML5) support

qChartView Pages

You can configure this web app through its tabs that are accessible through ezEdit. qChartView contains the following tabs:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

When you open ezEdit in qChartView, the Content page opens by default. It contains the following:

- Primary Content
- Filtering
- Search/Filter Panel

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to add a title for the web app.
Viewed Lists	See Viewed Lists on page 48 for more information
Chart Type	Allows you to select the type of chart used to display the data. For examples of each chart type, see Sample Charts on page 393. When you select one of the Multi Series, Scroll or Stacked chart type, you must define multiple data series in the Configuration property. Otherwise you will get a blank chart.
Configuration	See Configuration on page 49 for more information.

Viewed Lists

This property defines the lists whose data is aggregated in the Chart View.

The following are the elements for the Viewed Lists attribute.

Table 2. Viewed Lists

Element	Description
Advanced Mode	Turn on if you want to edit Viewed Lists in XML format: <Lists> <List SiteUrl="siteUrl" ListName="listName" [optional attributes] /> </Lists>
Site URL	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	Allows you to set the name of the SharePoint list. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list, you can use a single dot (.) as the list name.
Include Subsites	Allows you to search all subsites for a list whose name specified in the ListName, and aggregate the information from those list. **NOTE:** If you have many subsites, the information may take a long time to aggregate. Use this attribute if you have only a small amount of subsites. You must test this feature in your environment to see whether or not the response comes back in a reasonable amount of time and the request does not time out.
Include This Site	Used in conjunction of the IncludeSubsites attribute. If you set this property to true, the list in the current site is aggregated by the Chart View. The current site is the site whose URL is specified in the SiteUrl attribute.
Is Rollup List	Indicates whether or not the list specified by the SiteUrl and ListName attributes contains the Site URLs of the lists to be aggregated instead of the data to be aggregated. If you set this to true, the list specified by the SiteUrl and ListName must have a field that contains the URL information. By default, the name of that field is Site URL. If you use different field name, specify the name using the SiteUrlFieldName attribute below.

Table 2. Viewed Lists

Element	Description
Rolled Up List Name	Used in conjunction with the IsRollupList property, indicates the name of the lists to be rolled up if you set the IsRollupList to true. If you want to aggregate more than one list from each site specified in the rollup list, you can define more than one List elements with the same rollup list, but different RolledUpListName.
Site URL Field Name	Used in conjunction with the IsRollupList property, indicates the field that contains the Site URLs of the lists to be aggregated. This attribute is optional if the field name is Site URL. **NOTE:** The Site URL field must be a single line of text field.
Active Field Name	Used in conjunction with the IsRollupList property. The rollup list may contain a Yes/No field to indicate whether or not a particular site should be included in the rollup. This property is optional if the name of this field is Active. **NOTE:** The Active field must be a Yes/No field.

Configuration

This property defines how the data should be grouped in the X Axis and the data series for the chart.

The Configuration element should contain only one X-Axis and one Series element. Each Series element may contain one or more Items element.

The Configuration section contains the following:

Table 3. Configuration

Element	Description
Advanced Mode	Turn on if you want to edit Configuration in XML format: <Configuration LookupThresholdControlSetting=”On”> <XAxis FieldName="FieldName" [optional attributes]/> <Series> <Items FieldName="FieldName" AggregateFunction="Count|Avg|Sum|Min|Max|StdDev|Var" [optional attributes]/> <Items FieldName="FieldName" AggregateFunction="Count|Avg|Sum|Min|Max|StdDev|Var" [optional attributes]/> </Series> </Configuration>
Query All Fields	Controls how Web apps behave in relation to the Chart View Lookup Threshold in SharePoint Resource Throttling. The options are: • Default — uses the level set in the Configuration Editor. If you have selected Query All Fields check box in the Configuration Editor, the Web App will query only those fields that are not included in the Chart View Lookup Threshold. If the Query All Fields check box is cleared, the Web App will query all fields. • On — If the Web app level is On, the Web app queries all fields in lists, except Lookup fields. • Off — If the Web app level is Off, the Web app queries all fields in lists, including Lookup fields. • Explicit — If the Web app level is Explicit, the Web app queries only those fields selected in the Display Fields. This option renders the best performance for your Web app.

Table 3. Configuration

Element	Description
Field Name	Specifies the name of the field that corresponds to the x axis data. This attribute is mandatory. The field name is case sensitive.
Case Sensitive Calculations	Allows you to perform case-sensitive calculations (sum, count, avg) on lists. The calculations are performed as case insensitive if this property is not selected.
Display Only Those X-Axis Values That Contain Data	Select this check box if you want to display only X-axis values that contain data. If this check box is not selected, all X-axis values are displayed on the chart. **NOTE:** This is applicable only if you have selected Choice (menu to choose from) as the Column type for your Field Name property.
Sort By	Allows you to select how you want to group the data on the chart, either by field name or data series number. The value of this property does not have to be the same as the value in the Field Name attribute.
Sort Order	Specifies how the values in the column specified by the Sort By should be ordered, either ascending or descending.

If you want to add a data series, configure the following:

Table 4. Data Series

Element	Description
Field Name (for Data Series)	Specifies the field whose values are aggregated and plotted against the values in the X- Axis. **NOTE:** Only Number or Currency field can be used in the FieldName. The field name is case-sensitive.
Aggregate Function	Specifies the aggregation function to be performed on the field specified in the FieldName attribute. The following aggregation functions are supported: Count, Avg, Sum, StdDev, Var, Min, or Max.
Series Name	Allows the series name to be displayed in the legend as the title in case of multiple data series.
Chart Series Type	Defines the chart type for this series when you use one of the combination chart in the Chart Type property. The choices are: COLUMN, AREA or LINE. This attribute is ignored for any non-combination chart type.
Filter Expression	Defines the filter that is applied for the data in this series. The filter is defined using the Complex Filter. For more information, see Complex Filters on page 21.
Filter Field Name	Determines the field name whose data is used to generate a dynamic data series. The chart view will analyze the data in this field and generate the filter expression for each data series automatically, one per unique value in the field. This attribute is useful if the data that you should use as the filter expression for the data series is dynamic.
Drill Down Chart URL	Determines the URL of the page that contains the drill down chart for this data series.
Show Values	Allows you to determine whether to show the values for this dataset. **NOTE:** This attributes is only applicable for a multi-series chart.
Include in Legend	Allows you to determine whether to include the series name of this dataset in the legend. **NOTE:** This attribute is only applicable for a multi series chart.

Table 4. Data Series

Parent Y Axis	Allows you to set the parent axis of the dataset - P (primary) or S (secondary). Primary datasets are drawn as on the left y-axis and secondary on the right y-axis. In 3D Column (or stacked Column) + Line Combination Charts, the columns draw against primary y-axis and the lines against secondary y-axis. In 2D dual Y combination charts, you can choose what dataset to render against which y-axis. **NOTE:** This attribute is only applicable for a chart with a dual y axis.
Hide	Allows you to sort a data series that will not be displayed on the chart. **NOTE:** This option is only valid for multi-series charts only.

Examples of Configuration Property

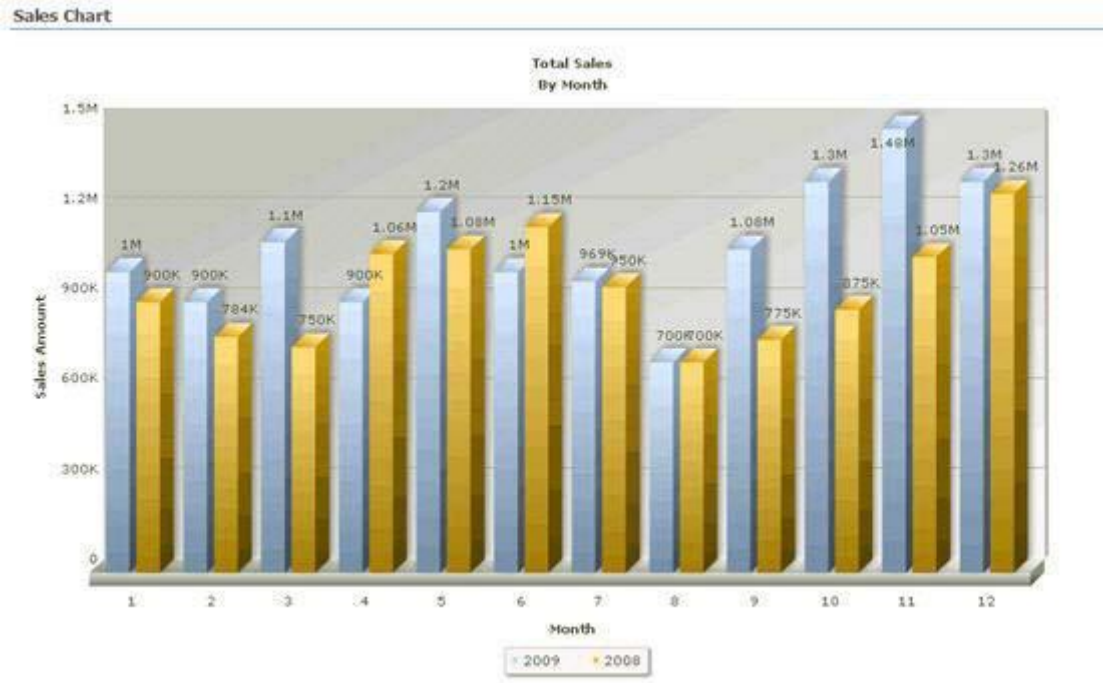
The following is an example of the Configuration property if you want to display data from your Sales list. Your Sales list contains the sales amount for every month in the year. There are 3 fields in the list: Year, Month, and Amount. For example, say you want to display the month in the X axis. You also wants to create the data series dynamically based on the year field.

If you are using Advanced Mode, here is the XML:

```
<Configuration>
   <Series>
    <Items FieldName="Amount" AggregateFunction="Sum" ChartSeriesType="COLUMN" FilterFieldName="Year"
/>
   </Series>
   <XAxis FieldName="Month" SortFieldName="Month" />
</Configuration>
```

The following shows the resulting chart

Figure 1. Example of Configuration Property chart



Filtering

The Filtering page allows you to use CAML filters to dynamically filter records or use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 5. Filtering

Element	Description
CAML Filter	Allows you to specify the CAML (Collaboration Application Markup Language) query expression to filter your data. CAML is an XML-based query language. The CAML Filter will only be applied to the data. The filter will not be applied to the responses. **NOTE:** If you are using an external list created from SQL, CAML Filter is not supported for the following SQL data types and corresponding operators: • Int/Tinyint/Smallint/float and 'Begins With' & 'Contains' • Bit (Boolean) and 'Contains' • Money and 'Contains' For more information, see CAML Filters on page 19.
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

Search/Filter Panel

The Search/Filter Panel allows you to define the panels for search, filter, and replace in the web app.

The Search/Filter Panel contains the following elements:

Table 6. Search/Filter Panel

Element	Description
Searched Fields	See Searched Fields on page 53.
Turn On List View Link Mode	Allows you to link this chart view with qListView. When selected, the chart view will display the same data that is displayed in the listview, with the same filters and sort condition applied. The filters and the sort conditions are being passed by the List View using Session variable. Therefore, you must set the Search Session Name property to the same value as the Search Session Name property in the listview. **NOTE:** The chart view does not have Search/Filter panel available in this mode.
Turn On List Searcher Mode	Allows you to perform a search before the chart view displays any data.
Show Search All Fields Control in Search Panel	Determines whether the Filter panel should display the control to search all fields in the list. When set to true, the following control is shown in the Filter panel: The Search All Fields Control allows you to do the following: • Combine the search all fields functionality with other search criteria that has been entered for specific fields. • When the search all fields criteria is entered, the Filter panel will construct a filter expression with the "Contain" operator for the following fields in the list: Single line of text, Multiple lines of text, Choice, Lookup (only Lookup to a Single Text field and Lookup to a Number field are supported), Person or Group and Hyperlink or Picture. If the list contains a Lookup to Number field, Search All Fields will not work for negative numbers for that field. The Filter panel will use the entire keywords as the value to be searched. Therefore, if you enter "High Priority" in the search all fields control and perform the search, it will find the following sentence: 'This is a high priority task' However, it will not find the following sentence: 'The priority is not always high'
Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.
Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.

Searched Fields

This property defines what fields are displayed in the Search Filter panel.

You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

NOTE: For the Number type field, the "Contain" operator is not supported for negative numbers, and is not available for the following fields: Lookup to DateTime field, Lookup to Calculated field, and Lookup to ID field.

You can further edit fields using the following elements:

Table 7. Searched Fields

Element	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format: <Fields> <Field Name="fieldName" [optional attributes]/> <!-- To search a cross site lookup field, use one of the following two formats --> <Field Name="fieldName" DisplayFieldName="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> <Field Name="fieldName" DisplayFormat="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> </Fields>
Field Name	Indicates the element you are editing.
Title	Displays title for the field. The value can be a plain string or an encoded HTML string.
Description	Describes the field. This is useful if you want to give a short instruction or explanation about the field.
Default Value	Defines the default value for the field. You can define a text, a number or a date. A date value must be specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ, for example: midnight of February 14, 2002 is 2002-02-14T00:00:00Z.
Default Operator	Defines the default operator for the field.
Fixed Operator	Defines the operator for the field. If specified, the list to select the operator for this field is turned off.
Use People Editor	Enables you to enter any user information that is in your directory service. If you set this to True and the field to be searched is a People and Group field, the Filter panel will show the People Editor control for entering the search criteria.
Column Count	Defines the number of columns for the options in a multi-choice field or in a choice-and-lookup field if the Enable Multi Choice attribute is set to True. This is useful in case your choice or lookup fields have too many choices and you want to break the choices into several columns to minimize the vertical scrolling in your form.
Enable Multi Choice	If selected, allows you to select multiple options for the choice-and-lookup field. Therefore, the user can specify a condition like "A or B". This attribute is ignored by other field types. To search a cross-site lookup field, you must specify one or more List elements inside the Field element. The cross-site lookup field is displayed as two drop downs.
Sort Field	Defines the field that is used to sort the value in the list. The field name is case sensitive.
Sort Order	Allows you to sort the values in ascending or descending order.
AutoPostBack	When selected, causes the Filter panel to refresh when the user changes the selection in a lookup field or cross-site lookup field. You need to set AutoPostBack to true if this field is a lookup or a cross-site lookup field and it is being used to filter another lookup or cross-site lookup field in the Filter panel.
Parent Field	Defines another lookup or cross-site lookup field that is used to filter this field. The parent field must be listed before this field in the XML property.
Parent Filter Field Name	Defines the field in the parent field that is used to filter this field. It is the primary key in the list that is used in the lookup or cross-site lookup field.
Filter Field Name	Defines the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.

Table 7. Searched Fields

Element	Description
Display Field Name	Shows the name of the field whose value is displayed in the list. The field name is case sensitive. Use this attribute instead of the Display Format attribute if you only want to display a single field in the list.
Display Format	Indicates the format of the value that is displayed in the list. Define this attribute instead of the Display Field Name attribute if you want to display multiple fields in the drop-down menu. You can use the field replacement expression <%Field%> to refer to a field. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Searched Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. **NOTE:** For more information, see Display Format on page 14.
Site URL	Indicates the Site URL of the field. You can use an absolute or relative URL.
List Name	Indicates the name of the List. The field name is case sensitive.
Site Name	Indicates the name of the site specified in the Site URL. This is used in case you have multiple lists. In this case, the first drop-down menu to select the list will display as "List Name in Site Name". You can use any name for the Site Name. It does not have to match the real title of the Site.

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Views

Views

Table 8. Views

Element	Description
Search Session Name	If Turn On List View Link Mode is selected, the Chart View will retrieve the Viewed Lists and filter criteria from the session under this name. This value must match with the Search Session Name property that you specify in the qListView. If the Turn On List View Link Mode is not selected, the Chart View uses this search session name to store the search criteria specified in the Search/Filter panel.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Chart
- Toolbar
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 9. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Chart

The Chart Page allows you to define characteristics of your charts.

Chart Appearance contains the following elements

Table 10. Chart Appearance

Element	Description
Chart Width	Allows you to specify the width of the chart in pixels.
Chart Height	Allows you to specify the height of the chart in pixels.
Chart Attributes	For more information, see Chart Attributes on page 56.
Trend Lines	For more information, see Trend Lines on page 75.
Style	For more information, see Styles on page 76.
Series Appearance	For more information, see Series Appearance on page 82.

Chart Attributes

Advanced Mode

Turn on Advanced Mode if you want to edit Chart Attributes in XML format.

Title and Axis Name

The Chart View allows you to add a caption, sub-caption, x-axis title, and y-axis title for your charts. You can configure the font properties for each of them individually or collectively. You can also apply styles and animation effects to them.

Table 11. Title and Axis

Element	Description
Caption	Allows you to add a title.
Sub-caption	Allows you to add a subtitle to your chart.
X-Axis Name	Allows you to set the x-axis name.
Y-Axis Name	Allows you to seta y-axis name.
Rotate Y Axis Name	Allows you to set rotate the name of the y-axis. The y-axis name is rotated by default on the chart. If you're using UTF-8 characters, those characters would not appear in rotated mode, as the qChartView uses embedded characters for rotation. In that case, you can opt to show y-axis name in horizontal form by setting this attribute to false.
Y Axis Name Width	Allows you to set the maximum width that the non-rotated y-axis title can assume.

Border and Background

Background refers to the entire background of the chart.

You can also have a border around the chart. By default, the border is on in 2D charts and off in 3D Charts.

Shown below is a chart with a border around the chart.

Figure 2. Border around chart

Table 12. Border and Background

Element	Description
Show Border	Allows you to show a border around the chart. By default, it is set to true in 2D charts and false in 3D charts.
Border Color	Allows you to set the border color of the chart. Use hex color code. To use the color picker, click on the color swatch square.
Border Thickness	Allows you to set the border thickness of the chart (in pixels).
Border Alpha	Allows you to set the border alpha (transparency) of the chart. The range is from 0-100.
Background Color	Allows you to fill the background as gradient. If you need to define two (or more) colors, separate them by a comma.
Background Alpha	Allows you to specify a respective alpha (transparency) for each color code that you've specified in the Background Color attribute, Separate the alphas by comma. The range is from 0-100
Background Ratio	Allows you to set the ratio of each color in the gradient on a scale of 100. The total ratios specified as this attribute should sum up to 100. For example, if you want to plot a equidistant gradient for 2 colors, specify Background Ratio as "0,100".
Background Angle	Allows you to set the angle of the gradient fill.
Background Image or SWF URL	Allows you to specify an external image (GIF,JPEG, or PNG only) or a SWF file as the background of the chart. Specify the URL (with relative path) of the background image or SWF File. Make sure that the image and the chart SWF file are in the same sub-domain. If you specify an absolute URL, the background image will not be shown.
Background Image or SWF Alpha	Allows you to configure the alpha of the background (loaded) image using this property.

Chart Canvas

Canvas refers to the area in which the chart is plotted.

Figure 3. Canvas

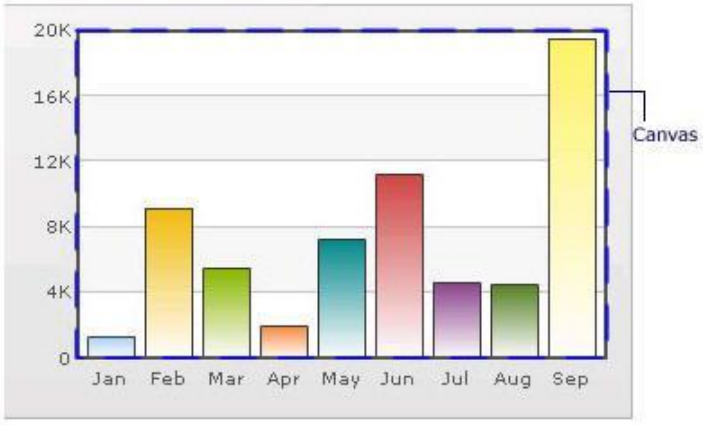


Table 13. Canvas

Element	Description
Canvas Border Color	Allows you set the border color for the Canvas. Use hex color code. To use the color picker, click on the color swatch square.
Canvas Border Thickness	Allows you set thickness of canvas border (in pixels)
Canvas Border Alpha	Allows you set alpha for canvas border.
Canvas Background Color	Allows you set the background color for the Canvas. Use hex color code. To use a gradient fill, specify all the colors of the gradient separated by commas.
Canvas Background Alpha	Allows you to specify a respective alpha (transparency) for each color code that you've specified in Canvas Background Color attribute. Separate the alphas by comma.
Canvas Background Ratio	Allows you to set the ratio of each color in the gradient on a scale of 100. The total ratios specified as this attribute should sum up to 100. For example, if you want to plot a equidistant gradient for 2 colors, specify canvasbgRatio as "0,100".
Canvas Background Angle	Allows you to set the angle of the gradient fill (in degrees - 0-360).
Show Canvas Background	Allows you to set the canvas background for a 3D chart (and canvas).
Show Canvas Base	Allows you to set the canvas base for a 3D chart (and canvas).
Canvas Background Depth	Allows you to set the depth of canvas background for a 3D chart (and canvas).
Canvas Base Depth	Allows you to set the height of canvas base (in pixels) for a 3D chart (and canvas).

Data Plot

Plot refers to the column, lines in a column, line chart respectively.

For all the charts, you can specify custom color for each data plot using the color attribute of <set /> element. The color must be in hex code format (RRGGBB) without #.

```
<chart ....>
   <set label='Jan' value='420000' color='FF0000'/>
   <set label='Feb' value='910000' color='00FF00'/>
   <set label='Mar' value='720000' color='0000FF'/>
   ....
</chart>
```

Figure 4. Data Plot

By default, most charts have FFFFFF as the plot gradient color. If you wish to use solid fills for the column (or area), use the Plot Gradient Color attribute without any color defined for it, that is, plotGradientColor="

```
<chart plotGradientColor=" ....>
   <set label='Jan' value='420000' color='FF0000'/>
   <set label='Feb' value='910000' color='00FF00'/>
   <set label='Mar' value='720000' color='0000FF'/>
   ....
</chart>
```

Figure 5. Data Plot with solid fills

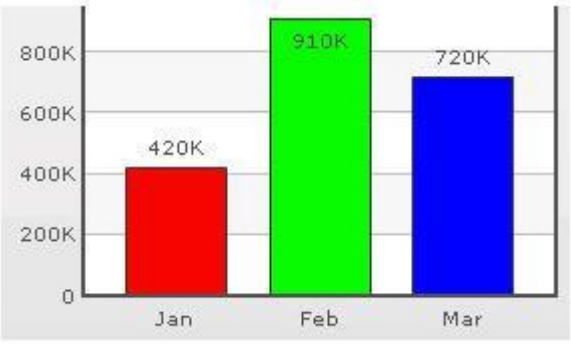


Table 14. Data Plot

Element	Description
Plot Gradient Color	Allows you to globally add a gradient color to the entire plot (column, area) of chart by specifying a color as its attribute.
Plot Fill Angle	Allows you set the fill angle for gradient if you've opted to fill the plot (column, area) as gradient. The range is from 0 - 360.
Plot Fill Ratio	Allows you set the ration for gradient if you've opted to fill the plot (column, area) as gradient. The range is from 0 - 100.
Plot Fill Alpha	Allows you set the fill alpha for gradient if you've opted to fill the plot (column, area) as gradient.
Show Plot Border	Allows you to show or hide the plot border. By default, each data plot (column, area, pie) shows a border.
Plot Border Dashed	Allows you to make the plot border dashed by setting this attribute to true.
Plot Border Dash Length	Allows you to set the length of each dash.

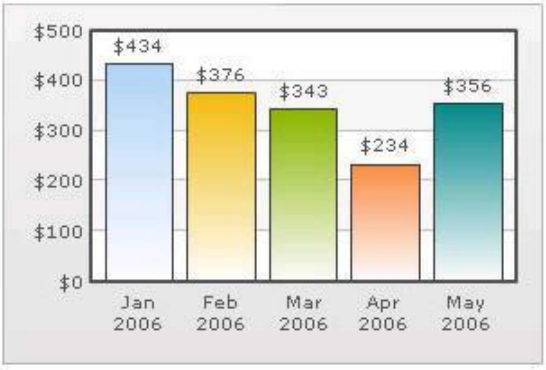
Table 14. Data Plot

Element	Description
Plot Border Dash Gap	Allows you to set the gap between each dash.
Use Round Edges	Allows you to plot columns/bars with rounded edges and glass effect gradients in charts that support 2D Columns or Bars (like column charts, bar charts, 2D combination charts). **NOTE:** In this mode, the following features do not work: • When you plot the columns with rounded edges, shadow is applied to them by default and show Shadow attribute no longer works. If you want to remove shadow from this mode, override the shadow with a new shadow style (applied to DATAPLOT) with alpha as 0. • Plot fill properties like gradient color, angle. no longer work as the colors for gradient are now calculated by the chart itself. • Plot border properties no longer work in this mode. Also, you cannot render the border as dash in this mode.

Data Labels

Data labels refer to the names for the data points that appear on the x-axis.

Figure 6. Data Labels



In the chart shown above, the dates are the data labels for the chart. By default, they get wrapped when there is not enough space on the chart.

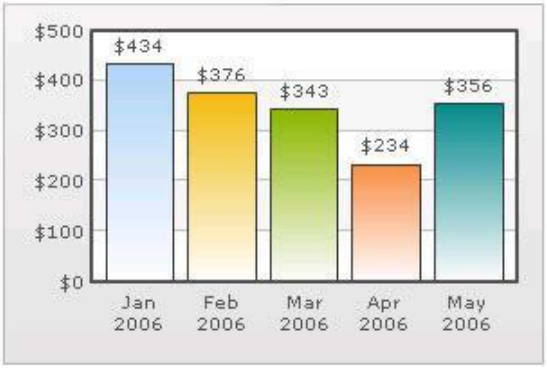
Table 15. Data Labels

Element	Description
Show Labels	Allows you to show the data labels.
Label Display	Allows you to display the data labels can be displayed on the charts in the following ways: • Wrap — By default, all the labels are shown in wrap mode, which enables you to wrap your long x-axis labels in multiple lines. • Rotate — allows you to rotate or slant the x-axis labels. • Stagger — distributes labels into multiple lines (by default 2). **NOTE:** Rotate mode does not work if you have non-English characters in your x-axis labels as the charts use embedded fonts to render rotated labels.
Slant Labels	Allows you to slant the labels at 45 degrees if you are using the Rotate mode for the Label Display.
Stagger Lines	Allows you to choose the number of lines to stagger the labels if you are using the Stagger mode for the Label Display.
Label Step	Allows you to show every n-th label instead of all labels if your X Axis labels represent a continuous quantity like time and date.

Data Values

Data values refer to the plot values such as line, column, and bar displayed beside it.

Figure 7. Data Values



In the chart shown above, the dollar values appearing above the column are the data values.

Table 16. Data Values

Element	Description
Show Values	Allows you to show data values. By default, the data values are shown. To hide them, set this attribute to false.
Rotate Values	Allows you to rotate the values. By default, the chart will show the data values horizontally.
Place Values Inside	Allows you to place the data values inside the columns.

External Logo

You can load external logos at run-time to be displayed over the chart. The logos can be GIF/JPEG/PNG or SWF files that reside on the same sub-domain as the chart SWF.

Figure 8. External Logo

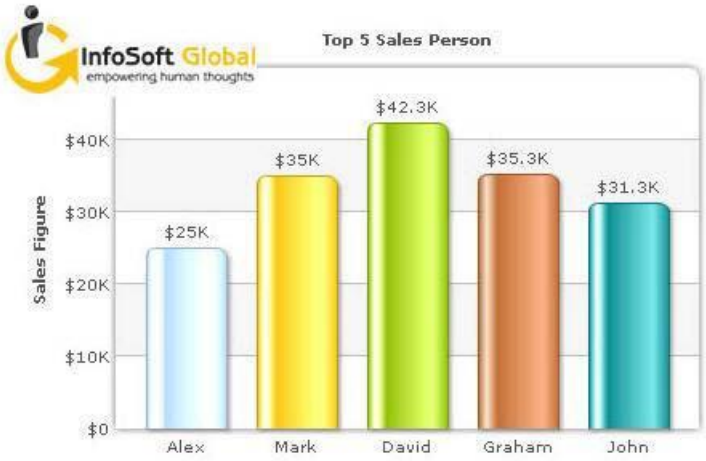


Table 17. External Logo

Element	Description
Logo URL	Allows you to specify the URL of the logo. You may use relative or absolute URL as long as the image and the chart SWF file are in the same sub-domain.
Logo Position	Allows you to set the position of the logo can be configured using this attribute.
Logo Alpha	Allows you to set the opacity of the logo once it has loaded.
Logo Scale	Allows you to set the scale of the logo, once it has loaded. The scale of 100 will display the logo in its original size. The scale of less than 100 will shrink the logo. The scale of more than 100 will enlarge the logo.
Logo Link	Allows you to link the logo to an external URL. This link can open in same window, new window, pop-up windows or frames. For information on how to format the link, see Trend Lines on page 75.

Font Properties

You can specify generic font properties for all the text on the chart using the attributes given below.

Table 18. Font Properties

Element	Description
Base Font Name	Allows you set the font face (family) of all the text (data labels, values) on chart. If you specify Outside Canvas Base Font Name attribute also, then this attribute controls only the font face of text within the chart canvas bounds.
Base Font Size	Allows you to set the base font size of the chart, that is, all the values and the names in the chart that lie on the canvas are displayed using the font size provided here. The range is from 0 - 72.
Base Font Color	Allows you to set the base font color of the chart, that is, all the values and the names in the chart that lie on the canvas are displayed using the font color provided here. Use hex color code. To use the color picker, click on the color swatch square.
Outside Canvas Base Font Name	Allows you classify all the text in the chart into 2: the text inside the canvas which consists of only the tool tip and the data values and all the text outside the canvas. You can define a base font group for all the text outside the canvas as well. This attribute sets the base font family of the chart font which lies outside the canvas, that is, all the values and the names in the chart that lie outside the canvas are displayed using the font name provided here.

Table 18. Font Properties

Element	Description
Outside Canvas Base Font Size	Allows you to set the base font size of the chart, that is, all the values and the names in the chart that lie outside the canvas are displayed using the font size provided here. The range is from 0 - 72
Outside Canvas Base Font Color	Allows you to set the base font color of the chart, that is, all the values and the names in the chart that lie outside the canvas are displayed using the font color provided here.

Chart Palettes

qChartView offers 5 palettes. The palette theme configures colors of the following:

- Background and border
- Canvas border and background
- Fonts
- 4Div lines
- Tooltip
- Anchors
- Legend

The internal palette does not cover the color of the data items. To change the color of the data items, use the Palette Colors attribute or Series Appearance property.

Table 19. Chart Palettes

Element	Description
Palette	Allows you to select the palette number.
Palette Colors	Allows you to specify your own palette for data items by providing a list of hex colors.

Y Axis

Chart limits are the minimum and maximum y-axis values. qChartView automatically calculates the best chart limits when you do not specify them explicitly.

Table 20. Y Axix

Element	Description
Y Axis Min Value	Allows you to set the chart limits explicitly.
Y Axis Max Value	Allows you to set the chart limits explicitly. NOTE: The Y Axis Max Value must be bigger than any of the values in the data series. Otherwise, the value will not be honored by the chart view.
Set Adaptive Y Min	Allows you to set whether the y-axis lower limit would be 0 (in case of all positive values on chart) or should the y-axis lower limit adapt itself to a different figure based on values provided to the chart.
Primary Y Axis Min Value	Allows you to explicitly set the lower limit of the primary y-axis. If you do not specify this value, it is automatically calculated by qChartView based on the data provided by you.
Primary Y Axis Max Value	Allows you to explicitly set the upper limit of the primary y-axis. If you do not specify this value, it is automatically calculated by qChartView based on the data provided by you.
Secondary Y Axis Min Value	Allows you to explicitly set the lower limit of the secondary y-axis. If you do not specify this value, it is automatically calculated by qChartView based on the data provided by you.

Table 20. Y Axix

Element	Description
Secondary Y Axis Max Value	Allows you to explicitly set the upper limit of the secondary y-axis. If you do not specify this value, it is automatically calculated by qChartView based on the data provided by you.
Primary Y Axis Name	Allows you to set the primary y-axis title.
Secondary Y Axis Name	Allows you to set the secondary y-axis title.
Set Adaptive Secondary Y Min	Allows you to set whether the secondary y-axis lower limit would be 0 (in case of all positive values on chart) or should the y-axis lower limit adapt itself to a different figure based on values provided to the chart.
Primary Y Axis Name Width	Allows you to set choose a maximum width (in pixels) that is applied to primary y-axis name, if you do not rotate y-axis name.
Secondary Y Axis Name Width	If you opt to not rotate y-axis name, you can choose a maximum width (in pixels) that is applied to secondary y-axis name.

Division Lines

Divisional lines are horizontal lines running through the canvas. They break up the y axis into smaller units helping in better visual data interpretation.

Figure 9. Division Lines

Table 21. Division Lines

Element	Description
Adjust Division Lines	Allows you to explicitly specify the y-axis upper and lower limit values, and also the number of divisional lines. In those cases, you need to automatic adjustment of divisional lines by setting this attribute to false. Then you can specify the y-axis upper and lower limits using the Y Axis Max Value and Y Axis Min Value attributes respectively.
Number of Division Lines	Allows you to set the number of divisional lines.
Div Line Effect	Allows you to enable to apply an effect, for example, EMBOSS, or BEVEL to the divisional lines. This attribute is applicable to MultiSeriesCombination3D chart type only.
Show Y Axis Values	Allows you to show all the y-axis values.
Y Axis Values Step	Allows you to skip every nth Y Axis value.
Division Lines	Allows you to set the color for divisional lines.
Division Lines Thickness	Allows you to set the thickness of divisional lines. The range is from 1 - 5.

Table 21. Division Lines

Element	Description
Division Lines Alpha	Allows you to set the alpha of divisional lines. The range is from 0 - 100.
Is Dashed	Allows you to set the divisional line to be dashed.
Division Lines Dash Length	Allows you to set the length of each dash.
Division Lines Dash Gap	Allows you to set the gap between each dash.
Show Alternate H Grid Color	Allows you to set the horizontal grid bands alternately between the divisional lines for all 2D charts. They can be hidden by setting this attribute to false.
Alternate H Grid Color	Allows you to set the color of the horizontal grid bands.
Alternate H Grid Alpha	Allows you to set the alpha of the horizontal grid bands. The range is from 0 - 100.
Vertical Div Lines	Allows you to set the vertical divisional lines running through the canvas in a line/area chart. They help in relating the data to its respective label, when there is a large amount of data.
Number of Vertical Div Lines	Allows you to set the number of vertical div lines.
Vertical Div Lines Color	Allows you to set the color of the vertical axis division lines.
Vertical Div Lines Thickness	Allows you to set the thickness of the vertical axis division lines in pixels.
Vertical Div Lines Alpha	Allows you to set the alpha of vertical axis division lines. The range is from 0 - 100.
Is Dashed	Allows you to set the vertical axis division lines as dashed.
Vertical Div Lines Dash Length	Allows you to set the length of each dash.
Vertical Div Lines Dash Gap	Allows you to set the gap between each dash..
Show Alternate V Grid Color	Allows you to set the vertical grid bands alternately between the vertical divisional lines.
Alternate V Grid Color	Allows you to set the color of the alternate vertical grid bands.
Alternate V Grid Alpha	Allows you to set the alpha (transparency) of the alternate vertical grid bands.
Show V Line Label Border	Allows you to set the borders for all labels for vLines in the chart. If you want to show label border for just a particular vLine, you can override this value by specifying border configuration for that specific vLine.

Zero Plane

Zero plane is a plane which separates the positive and negative numbers on a chart having both of them.

Figure 10. Zero Plane

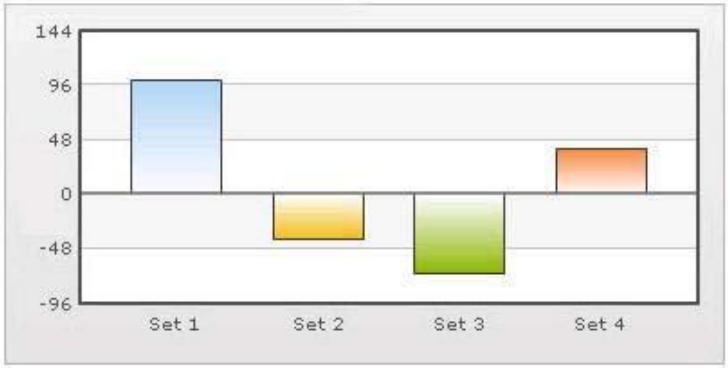


Table 22. Zero Plane

element	description
Show Zero Plane	Allows you set the zero plane in the column, line, and the area chart. It can be removed in the line chart but not in the column or the area chart because they use this as their base to draw. It can be removed in the line chart by setting this attribute to false.
Zero Plane Color	Allows you set the color of the zero plane.
Zero Plane Alpha	Allows you set the alpha (transparency) of the zero plane. The range is from 0 - 100.
Zero Plane Thickness	Allows you set the thickness of the zero plane in pixels.
Zero Plane Show Border	Allows you set the whether to show border of zero plane for a 3D chart.
Zero Plane Border Color	Allows you set the border color of zero plane for a 3D chart.
Zero Plane Mesh	Allows you set the whether to draw the zero plane as a wireframe mesh or as a filled plane. If set to true, a mesh on the zero plane of the chart is drawn. This attribute is applicable to MultiSeriesCombination3D chart type only.

Anchors

Each data point in a line or area chart is represented by an anchor. The anchors help identify the data point better in the chart. They also show a tool tip showing the data point details when the mouse is hovered over them, and can be linked to other pages as well.

Figure 11. Anchors

Table 23. Anchors

Element	Description
Draw Anchors	Allows you show the anchors. The anchors are displayed by default. To hide them, set this attribute to false. Once the anchors are hidden, the tool tips for the data points will not be displayed and the links will not work.
Anchor Alpha	Allows you set the alpha of entire anchors. The range is from 0 - 100. If you need to hide the anchors but still have tool tip and link, set Anchor Alpha to '0'
Anchor Sides	Allows you to set the number of sides the anchor will have. For example, an anchor with 3 sides would represent a triangle, with 4 it would be a square. The range is from 3 - 20.
Anchor Radius	Allows you to set the radius (in pixels) of the anchor. The greater the radius, the bigger the anchor size.
Anchor Border Color	Allows you to set the border color of anchors.

Table 23. Anchors

Element	Description
Anchor Border Thickness	Allows you to set the border thickness (in pixels) of the anchors.
Anchor Background Color	Allows you to set the background color of anchors.
Anchor Background Alpha	Allows you to set the alpha of anchor background. The range is from 0 - 100.

Tool Tip

A tool tip is shown when the mouse is hovered over a particular data point. It shows the following information:

- Single series chart (except pie & doughnut): Name & value
- Pie & Doughnut: Name & value/percentage
- Multi-series & combination chart: Series Name, Category Name, Data Value

Figure 12. Tool Tip

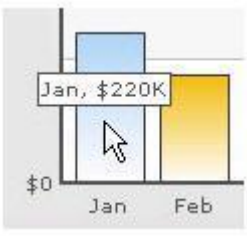


Table 24. Tool Tip

Element	Description
Show Tool Tip	Allows you to set the tool tip.
Show Tool Tip Shadow	Allows you to show the tool tip shadow.
Tool Tip Border Color	Allows you to customize the border color of the tool tip.
Tool Tip Background Color	Allows you to customize the background color of the tool tip.
Tool Tip Separator Character	Allows you to specify a character to separate the name and value displayed in tool tip.
Series Name in Tool Tip	Allows you to control whether series name will appear in the tool tip. For multi-series and combination charts, qChartView shows the following information in tool tip (unless tool text is explicitly defined): "Series Name, Category Name, Data Value".
Show Percent In Tool Tip	Allows you to show percentage values in Tool Tip for Pie or Doughnut chart. By default, the Pie or Doughnut chart shows percentage values in Tool Tip.

Paddings and Margins

qChartView lets you define various paddings and margins using pixels. These attributes are listed one-by-one below.

By default, qChartView provides some padding between the chart border and the canvas. This is called the chart margin and each margin can be set individually.

Figure 13. Paddings and Margins

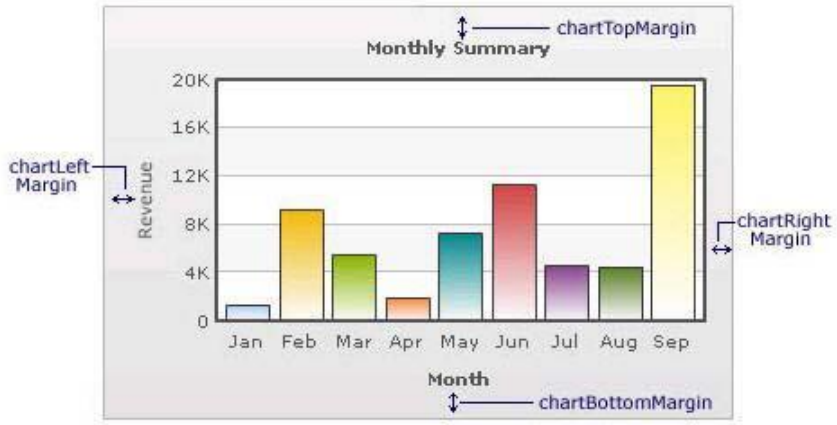


Table 25. Paddings and Margins

Element	Description
Left Margin	Allows you to set the amount of empty space on the left side of your chart. Nothing is rendered in this space.
Right Margin	Allows you to set the amount of empty space on the right side of your chart. Nothing is rendered in this space.
Top Margin	Allows you to set the amount of empty space ton the top of your chart. Nothing is rendered in this space.
Bottom Margin	Allows you to set the amount of empty space on the bottom of your chart. Nothing is rendered in this space.
Canvas Left Margin	Allows you to set the amount of empty space on the left side of the canvas. Nothing is rendered in this space.
Canvas Right Margin	Allows you to set the amount of empty space on the right side of the canvas. Nothing is rendered in this space.
Canvas Top Margin	Allows you to set the amount of empty space t on the top of the canvas. Nothing is rendered in this space.
Canvas Bottom Margin	Allows you to set the amount of empty space on the bottom of the canvas. Nothing is rendered in this space.
Caption Padding	Allows you to set the amount of space between the caption of the chart and the top of the chart canvas. If you have a sub-caption defined in the chart, it controls the space between the sub-caption and the top of the chart canvas.
X Label Gap	Allows you to set the vertical space between the labels and canvas wall edge. If you want more space between the canvas and the x-axis labels, you can use this attribute to control it.
Y Label Gap	Allows you set the horizontal space between the canvas wall edge and the y-axis values or trend line values (on left/right side). This is particularly useful, when you want more space between your canvas and y-axis values.
X Axis Name Padding	Allows you to set the distance between the top of x-axis title and the bottom of data labels (or canvas, if data labels are not shown).
Y Axis Name Padding	Allows you to set the padding between the y-axis name and values.
Y Axis Values Padding	Allows you to set the padding between the left end of the chart canvas and the y-axis values.
Label Padding	Allows you to set the vertical space between the canvas bottom edge and the data labels.
Value Padding	Allows you to control the space between your columns/anchors and the value textboxes.

Table 25. Paddings and Margins

Element	Description
Canvas Padding	For a line/area chart, allows you to set the padding between the canvas border and the position where the line/area chart begins to draw is called canvas padding.
Plot Space Percent	On a column chart, allows you to set the spacing between two columns. By default, the spacing is set to 20% of canvas width. For example, if you wanted all columns to stick to each other without any space in between, you can set plotSpacePercent to 0. Similarly, if you want very thin columns, you can set plotSpacePercent to its max value of 80.

Smart Labels and Lines

Smart labels are the labels for the pie/doughnut chart. The smart labels prevent overlapping of labels even when large number of labels are placed in close vicinity.

Figure 14. Smart Labels and Lines

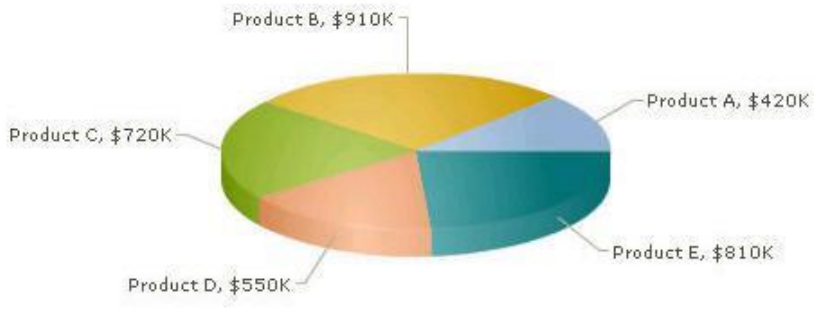


Table 26. Smart Labels and Lines

Element	Description
Enable Smart Labels	Allows you to enable the smart labels (if required to save chart space or when there are few pie segments). When the smart labels are switched off, the pie labels would be displayed without the smart label lines. But if they number of labels increases and smart labels are not being used, then the labels might overlap.
Smart Line Color	Allows you to set the color of smart label connector lines.
Smart Line Thickness	Allows you to set the thickness (in pixels) of smart label connector lines.
Smart Line Alpha	Allows you to set the alpha (transparency) of smart label connector lines. The range is 0 - 100.
Is Smart Line Slanted	Allows you to set the smart lines (smart label connector lines) in two ways: Slanted or Straight.
Label Distance	Allows you to set the distance of the label/value text boxes from the pie/doughnut edge in pixels. You must set Enable Smart Labels to false for this attribute to take effect.
Smart Label Clearance	Allows you to set the clearance distance of a label (for sliced-in pies) from adjacent sliced out pies in pixels.
Skip Overlap Labels	Allows you to skip the overlapping labels if you have too many labels in your pie chart (which is difficult to adjust even using smart labels). In that case, you have the option to set this attribute to true. The labels of the least significant pies would be removed.
Show Percent Values	Allows you to set the actual value of the pie segment to be displayed in the label or the percentage value. By default, the actual values are displayed. When you want to display their percentages, set this attribute to true.

Legend

In multi-series/combination charts, the series name of each dataset shows up in the legend of the chart. This helps you relate a data plot to its series name using its color. A dynamically generated series will be prefixed in the legend with the series name if a series name has been configured. The legend does not appear for single-series charts because there is only one series in the chart.

Figure 15. Legend

The legend below the chart helps identify the series name.

Table 27. Legend

Element	Description
Show Legend	Allows you to show the legend.
Interactive Legend	Allows you to make the legend interactive. Interactive Legend only works for a combination chart. In the combination chart, you can click the legend to show/hide the values of the data items. If you set Interactive Legend to false, then legend will not be interactive.
Legend Caption	Allows you to add a caption for the entire legend by setting the same here.
Legend Marker Circle	Allows you to use square legend keys or circular ones.
Reverse Legend	Allows you to reverse the order of items in legend.
Legend Position	Allows you to place the legend in 2 positions: RIGHT and BOTTOM. It gets placed below the canvas by default. To place it to the right of the chart canvas, set Legend Position = 'RIGHT'.
Allow Drag	Allows you to make the legend dragable. End viewers of the chart can drag the legend around on the chart.
Legend Background Color	Allows you to set the background color for the legend.
Legend Background Alpha	Allows you to set the background alpha (transparency) for the legend. The range is 0 - 100.
Legend Border Color	Allows you to set the border color for the legend.
Legend Border Thickness	Allows you to set the border thickness, in pixels, for the legend.
Legend Border Alpha	Allows you to set the border alpha for the legend. The range is 0 - 100.
Legend Shadow	Allows you to set a shadow for legend.
Legend Scroll Background Color	Allows you to set the background color of the scroll bar. If you've too many items on the legend, a scroll bar appears.

Table 27. Legend

Element	Description
Legend Scroll Bar Color	Allows you to set the bar color of the scroll bar. If you've too many items on the legend, a scroll bar shows up on the same.
Legend Scroll Button Color	Allows you to set the color of buttons on the scroll bar. If you've too many items on the legend, a scroll bar shows up on the same.If you've too many items on the legend, a scroll bar shows up on the same.

Number Formatting

qChartView offers you a lot of options to format your numbers on the chart from number prefixes and suffixes to controlling the decimal places to scaling your numbers based on a pre-defined scale.

Table 28. Number Formatting

Element	Description
Format Number	Allows you to determine whether the numbers displayed on the chart are formatted using commas, for example, 40,000 if Format Number is true and 40000 if Format Number is false.
Format Number Scale	Allows you to determine whether to add K (thousands) and M (millions) to a number after truncating and rounding it - for example, if Format Number Scale is set true, 1043 would become 1.04K (with decimals set to 2 places). Same with numbers in millions - a M will added at the end.
Default Number Scale	Allows you to set the default unit of the numbers that you are providing to the chart.
Number Scale Unit	Allows you to set the unit of each block of the scale.
Number Scale Value	Allows you to set the range of the various blocks that constitute the scale.
Number Prefix	Allows you to add a prefix to all the numbers visible on the graph. For example, to represent all dollars figure on the chart, you could specify this attribute to ' $' to show like $40000, $50000.
Number Suffix	Allows you to add a suffix to all the numbers visible on the graph. For example, to represent all figure quantified as per annum on the chart, you could specify this attribute to ' /a' to show like 40000/a, 50000/a.
Decimal Separator	Allows you to specify the character to be used as the decimal separator in a number.
Thousand Separator	Allows you to specify the character to be used as the thousands separator in a number.
In Decimal Separator	Allows you to input the decimal separator.
In Thousand Separator	Allows you to input the thousand separator.
Decimals	Allows you to set the number of decimal places to which all numbers on the chart would be rounded. The range is from 0 - 10.
Force Decimals	Allows you to add 0 padding at the end of decimal numbers. For example, if you set decimals as 2 and a number is 23.4. If force Decimals is set to 1, qChartView will convert the number to 23.40 (note the extra 0 at the end).
Y Axis Value Decimals	Allows you to specify the div line values decimal precision. The range is from 0 - 10.

3D Chart Attributes

The 3D Combination chart is a true 3D chart which offers features such as viewing from a specific camera angle, definition of light source, use of dynamic lighting, and rotation.

The various elements of a 3D Combination chart are shown below:

Figure 16. 3D Charts

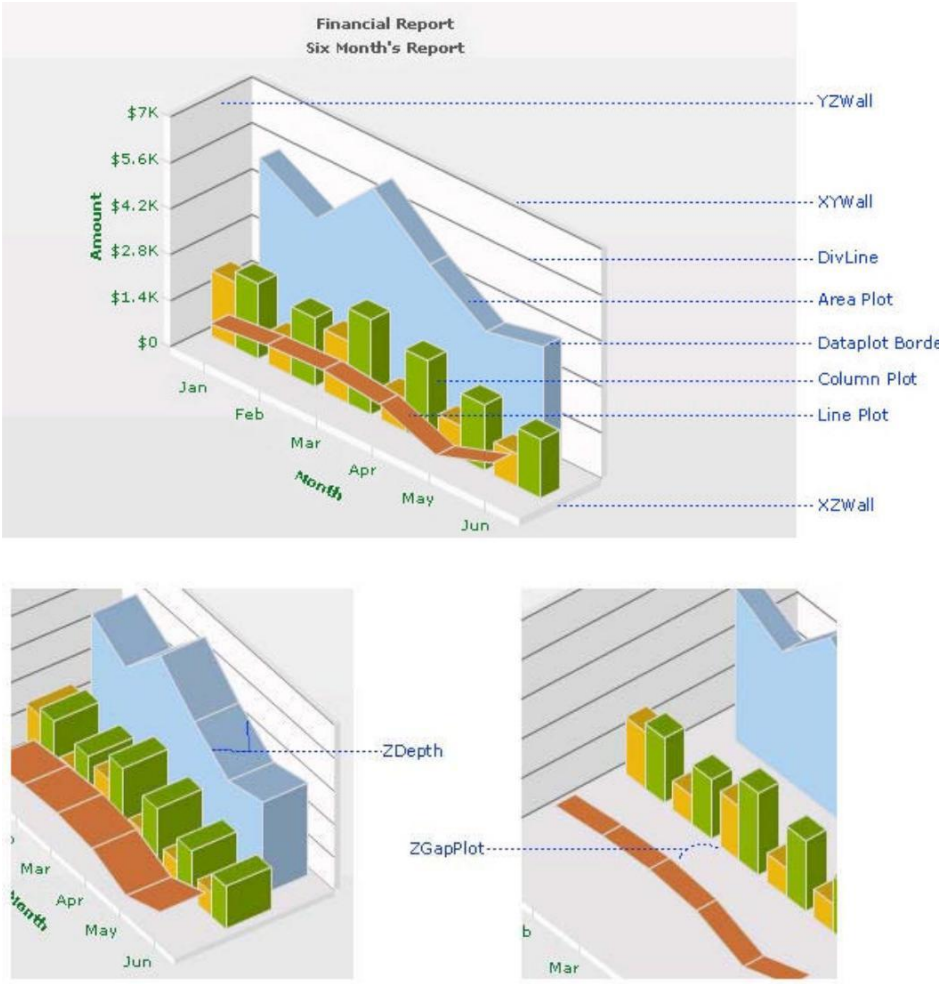


Table 29. 3D Charts

Element	Description
Is 2D	Allows you to decide whether initially to draw a 2D view of the chart.
Chart Order	Allows you to set the order by which different types of charts will appear. The value can be any combination of 'column', 'line' or 'area', each separated by a comma. By default, the order is: line, column, area. You can change to any order you like, for example, 'column, area, line' or 'line, area'.
Chart On Top	Allows you to decide whether or not the chart canvas is placed over the extra chart elements (caption, subcaption, legend). This feature is visible when the chart canvas is zoomed/scaled. +
Auto Scaling	Allows you to decide whether or not the chart is allowed to best fit automatically after a user interaction, for example, rotation.
Allow Scaling	Allows you to set whether to allow zoom-in/zoom-out. **NOTE:** Scaling or use of mouse is compatible only with Windows® Operating System.

Table 29. 3D Charts

Element	Description
Animate 3D	Allows you to show the initial plot animation. By default, the 3D chart is rendered with a default animation. To globally set off all animation set Animation to false. This would not only set off 3D animations, but also disable all animations applied using <styles>. The additional use of Animate 3D can override this value. Hence, a combination of Animation = false and Animate 3D = true would disable all animations applied using <styles> but, enable animation of the 3D canvas.
Exe Time	Allows you to set the time that the chart takes to animate. This attribute also sets the time taken by the chart canvas to animate when the chart is transformed to any view (View3D, View 2D, Reset View).
Camera Angle X/Camera Angle Y	Allows you to define the camera angle. • Camera Angle X lets you specify the camera angle (for view around the chart vertically) from which the chart is viewed initially in no animation mode (when animate3D='0) . If not specified, the default value is 30. The range is from 0 to 360 and 0 to -360. • Camera Angle Y lets you specify the camera angle (for view around the chart horizontally) from which the chart is viewed initially in no animation mode (when animate3D='0). If not specified, the default value is -45. The range is from 0 to 360 and 0 to -360. Since this is a true 3D chart, it's rendered as a 3D model that is viewed from a specific camera angle. The camera can simply be defined as the eye of a real viewer. When you have set Animate 3D to 0, you can define the camera angle using two attributes - Camera Angle X and Camera Angle Y. When you use animation, you can also set up the starting camera view from which the camera view starts animating, and the final camera view to which the chart would finally be rotated. For this, you need to use Start Angle X, Start Angle Y, End Angle X and End Angle Y attributes.
Start Angle X/End Angle X	Start Angle X — Allows you to specify the view angle (for view around the chart vertically) at which rotation of the chart starts (when the chart is initialized). The rotation stops at endAngX. If not specified, the default values for both the attributes are 30. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1'). End Angle X — Allows you to specify the view angle (for view around the chart vertically) at which rotation of the chart ends (when the chart is initialized). The rotation starts at startAngX. If not specified, the default values for both the attributes are 30. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1').
Start Angle Y/End Angle Y	Start Angle Y — Allows you to specify the view angle (for view around the chart horizontally) from which rotation of the chart starts (when the chart is initialized). The rotation stops at endAngY. If not specified, the default values for both the attributes are -45. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1'). End Angle Y — Allows you to specify the view angle (for view around the chart horizontally) at which rotation of the chart ends (when the chart is initialized). The rotation starts at startAngY. If not specified, the default values for both the attributes are -45. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1').
Light Angle X/Light Angle Y	Light Angle X — Allows you to specify the angular position of the light source (for X-axis) w.r.t the chart world coordinate system. The range is from 0 to 360 and 0 to -360. Light Angle Y — Allows you to specify the angular position of the light source (for Y-axis) w.r.t the chart world coordinate system. The range is from 0 to 360 and 0 to -360.

Table 29. 3D Charts

Element	Description
Intensity	Allows you to control the intensity of the light that falls on the chart elements. The range of this attribute lies between 0 to 10. 10 would provide light with maximum intensity, and you will get the brightest view of the chart. If you set the value to 0, light is provided with least intensity. However, the chart will never appear in full darkness even you set intensity to 0. A faint light is always made available. By default, the value is set to 2.5.
Dynamic Shading	Allows you to set the chart in dynamic shading/non-world mode. If set to false, the chart is in world mode. For example, you can have a Combination 3D Chart that has two different lighting systems to light up the chart elements. The light source may be fixed outside the chart. This causes only those sides of the chart to get the light which face the light source. Thus, when the chart is manually rotated, dynamic shades are created on the chart surfaces. This system of lighting is called dynamic shading. World lighting is where the light source is fixed with the chart. In this case, the light source rotates with the rotation of the chart. Hence, the surface facing the light source gets lightened and continues to be in the bright side despite any manual rotation of the chart being made, whereas the surface not facing the light keeps remaining in darkness with every chart rotation.
Bright 2D	Allows you to set maximum brightness to the chart while being rendered in 2D mode. This is applicable only when you've set Dynamic Shading to true. However, once you set this attribute to true, you cannot use Light Angle X and Light Angle Y attributes. Rather, it automatically sets up the light sources to give the brightest view of the chart in 2D mode.
Allow Rotation	Allows you to decide whether to stop any user interactive rotation of the chart or not. If it is set to false, the interactive rotation is barred.
Constrain Vertical Rotation	Allows you to rotate up to 90 degrees (top or bottom) from 0 degree position. You can also specify these limits using Minimum Vertical Rotation Angle and Maximum Vertical Rotation Angle attributes. This is only applicable to user's mouse interactively with the chart.
Minimum Vertical Rotation Angle	Allows you to set the minimum allowed angle up to which a user can rotate the chart vertically. This is only applicable to user's mouse interactively with the chart.
Maximum Horizontal Rotation Angle	Allows you to set the maximum allowed angle up to which a user can rotate the chart horizontally. This is only applicable to user's mouse interactively with the chart.
Z Depth	Allows you to set the depth (3D thickness) of each DATAPLOT object using zDepth attribute.
Z Gap Plot	Allows you to specify a gap between all dataplots in a 3D combination chart, as more than one DATAPLOT types can exist due to different datasets. A Z Gap Plot set to 0 will show no gap between dataplots.
YZ Wall Depth	Allows you to set the depth of the YZ wall of 3D chart.
ZX Wall Depth	Allows you to set the depth of the ZX wall of 3D chart.
XY Wall Depth	Allows you to set the depth of the XYwall of 3D chart.
Clustered	Allows you to set a Combination 3D chart in clustered mode. In a Combination 3D chart, you can plot multiple number of datasets which can be rendered as Column.

Custom About Menu Item

You can change the default "About QuickApps for SharePoint" context menu item to show your label and link it to your own URL using the below attributes.

Table 30. Custom About Menu

Element	Description
Show About Menu Item	Allows you to set up a custom context menu in the chart, which can show your text and can be linked to your URL. For example, you can set the context menu of the chart to include "About your company name" and then link to your company home page. By default, the chart shows "About QuickApps for SharePoint" when right-clicked.
About Menu Item Label	Allows you to set a menu item label for the custom context menu item.
About Menu Item Link	Allows you to provide a link for the custom context menu item. You can specify the link in qChartView link format to be able to open the same in new window, pop-ups, frames or as JavaScript links.

Functional

These attributes let you control a variety of functional elements on the chart.

Table 31. Functional

Element	Description
Animation	Allows you to control animation in your charts. If you do not want to animate any part of the chart, set this to false. This would also disable all animations applied using <styles>. Animate 3D can override this value. By default, animation is set to true.
Click URL	Allows you to set a URL as a hotspot for a chart. For more information, see Formatting Links.

Trend Lines

Trend Lines allow you to specify the horizontal/vertical lines spanning the chart canvas which aid in interpretation of data with respect to some pre-determined value.

Trend Lines contain the following:

Table 32. Trend Lines

Element	Description
Advanced Mode	Turn on if you want to edit Trend Lines in XML format.
Start Value	Allows you to set the start value for the trend line
End Value	Allows you to set the ending y-axis value for the trend line
Display Value	Allows you to display a string caption for the trend line by its side
Color	Allows you to set the color of the trend line and its text
Is Trend Zone	Allows you to set the trend as a zone rather than a line
Thickness	Allows you to set the thickness of the trend line
Alpha	Allows you to set the alpha transparency of the trend line
Dashed	Allows you to set the trend line as a dashed line
Dash Length	Allows you to set the length of each dash in pixels
Dash Gap	Allows you to set the gap length between each dash
Value on Right	Allows you to show if the trend line is on the right or left side of the chart
Tool Text	Allows you to show tool text when hovered over a trend line
Parent Y Axis	Allows to you set whether the trend line should be plotted against a primary or secondary Y axis (If you use a dual Y Axis chart). If you do not use a dual Y axis chart, the trend line is plotted against the primary Y axis.

Styles

Styles help you apply font, effects and animations to various objects of the chart. Styles lends a simple mechanism using which you can easily control the visual layout of charts.

Styles allows you to:

- Define your own style attributes using the Style Editor.
- Associate them with defined Objects of the chart from within the Style Editor.
- Have better control over chart look & feel.
- Group together in one element in the XML document, thereby separating data from visual formatting.
- Store the entire style definition in a central location in your application, so that all charts within application can utilize it.
- Re-use style definitions. Each style can be applied to multiple chart objects or vice versa.

Each object on the chart has been assigned a unique name, for direct association with style definitions. For example, the background of the chart is termed as BACKGROUND. Similarly, the plot (columns, lines, areas) on the chart is named as DATAPLOT. This enables you to associate each style to multiple chart objects or associate multiple chart objects to a particular style.

You can find the list of objects for each chart in individual Chart XML Sheet.

You can define one or more styles for a chart from the Styles Editor. To add a style, click Add. To see more attributes for a particular style, click Edit for the style. To delete a style, select the check box of the style and click Delete.

Styles contains the following:

Table 33. Styles

Element	Description
Advanced Mode	Turn on if you want to edit Styles in XML format: <styles> <definition> <style name='MyFirstFontStyle' type='font' face='Verdana' size='12' color='FF0000' bold='1' bgColor='FFFFDD' /> <style name='MyFirstAnimationStyle' type='animation' param='_xScale' start='0' duration='2' /> <style name='MyFirstShadow' type='Shadow' color='CCCCCC' /> </definition> <application> <apply toObject='Caption' styles='MyFirstFontStyle,MyFirstShadow' /> <apply toObject='Canvas' styles='MyFirstAnimationStyle' /> <apply toObject='DataPlot' styles='MyFirstShadow' /> </application> </styles>
Name	Allows you to assign your custom name for the style definition. Style name can only include alphabets and numbers. Punctuation marks (including underscore) should not be used. Style name must be unique, that is, two style definitions cannot have the same name.

Table 33. Styles

Element	Description
Type	Allows you to set the following types: • Font — allows you to control text properties for all the text on the chart. You can set: Font — allows you to set the font type Size — allows you to set the font size Color — allows you to set the font color Bold — allows you to set the font weigh Underline — allows you to assign underline character Background Color — allows you to set the background color Border Color — allows you to set the border color Is HTML — allows you to render the text as HTML Left Margin — allows you to set the left margin of the text Letter Spacing — allows you to set the space between the letters in the text • Animation — Allows you to define your custom animations for different elements of the chart. By default, qChartView animates the data plot (columns, lines, area) only. However, you can define your custom animations for other chart objects (like captions, titles, values) in the XML. Each chart object can have multiple animation properties (like x, y, xscale, yscale, alpha) and each sequence can have its own duration. Param — Allows you to you specify the property of chart object which you want to animate, such a _x (animate the x position), _y (animate the y position), _xScale (animate the x-scale), _yScale (animate the y-scale), alpha (helps the alpha transition animation effect), _rotation (animate pies and doughnuts in circles) Start — allows you to set the start value of the animation Duration — allows you to control the duration of animation in seconds Easing — allows you to specify the pattern of animation easing.

Table 33. Styles

Element	Description
Type	• Shadow — Allows you to apply shadow effect to any object on the chart. Distance — allows you to set the offset distance of the shadow Angle — allows you to set the angle of the shadow Color — allows you to set the color of the shadow Alpha — allows you to set the alpha transparency of the shadow BlurX — allows you set the amount of horizontal blur on the shadow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur on the shadow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Strength — allows you to set the strength of the imprint or spread. The higher the value, the more color is imprinted and the stronger the contrast between the shadow and the background. Quality — allows you to set the number of times to apply the shadow effect. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker • Glow — lets you apply glow effects to objects on the chart. Color — allows you to set the color of the glow Alpha — allows you to set the alpha transparency of the glow BlurX — allows you set the amount of horizontal blur on the glow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur on the glow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Strength — allows you to set the strength of the imprint or spread. The higher the value, the more color is imprinted and the stronger the contrast between the shadow and the background. Quality — allows you to set the number of times to apply the glow effect. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker.

Table 33. Styles

Element	Description
	• Bevel — Allows you to apply bevel effect for any of the chart objects. Angle — allows you to set the angle of the bevel Distance — allows you to set the offset distance of the bevel Shadow Color — allows you to set the shadow color of the bevel Shadow Alpha — allows you to set the alpha transparency value of the shadow color Highlight Color — allows you to set the highlight color of the bevel Highlight Alpha — allows you to set the alpha transparency value of the highlight color BlurX — allows you set the amount of horizontal blur on the bevel. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur on the bevel. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Strength — allows you to set the strength of the imprint or spread. The higher the value, the more color is imprinted and the stronger the contrast between the shadow and the background. Quality — allows you to set the number of times to apply the bevel. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker. • Blur — Allows you to create a blur effect for any object on the chart. BlurX — allows you set the amount of horizontal blur. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Quality — allows you to set the number of times to apply the filter. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker.

Custom defined styles to chart objects

To apply your defined styles to chart objects, make sure that you have the list of chart objects present in each chart.

For example, the following chart objects are for 2D Single Series Column Chart:

Table 34. Chart Objects for 2D Series Column Chart

Object Name	Description	Features Supported	Animation Parameters Supported
BACKGROUND	entire background of the chart	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _xScale • _yScale
CANVAS	T the area in which the actual chart is plotted. It is represented by a bounded rectangle. In 3D charts, it refers to the 3D base on which the columns are built.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _xScale • _yScale

Table 34. Chart Objects for 2D Series Column Chart

Object Name	Description	Features Supported	Animation Parameters Supported
CAPTION	The heading of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
DATALABELS	The x-axis labels of the data	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
DATAPLOT	The actual plot of the chart. For example, in Column 2D chart, columns are referred to as DATAPLOT.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _xScale • _yScale
DATAVALUES	The plot values that is, value of each data (line, column, bar, pie), which is displayed beside the data plot.	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
DIVLINES	The horizontal or vertical lines running through the canvas. Each divisional line signifies a smaller unit of the entire axis thus aiding the users in interpreting the chart.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _yScale
HGRID	Alternate color bands between two successive horizontal divisional lines	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _xScale • _yScale
SUBCAPTION	The sub-heading of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
TOOLTIP	The tool tip shown when mouse is hovered over the data plots	• Font (only Font, Size and Color attributes are supported)	

Table 34. Chart Objects for 2D Series Column Chart

Object Name	Description	Features Supported	Animation Parameters Supported
TRENDLINES	Horizontal/vertical lines spanning the chart canvas which aid in interpretation of data with respect to some pre-determined value.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _xScale • _yScale •
TRENDVALUES	The display values of trend-lines (if any)	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
VLINES	Vertical separator lines that help you separate blocks of data. These lines run through the height of the chart, thereby segregating data into different blocks. In case of bar charts, they are horizontal and run through the width of chart.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _xScale • _yScale
XAXISNAME	The x-axis title of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
YAXISNAME	The y-axis title of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
YAXISVALUES	The limit values or divisional line values, which are displayed along the y-axis of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _rotation

The following XML does the work of applying styles to different chart objects:

```
<application>
    <apply toObject='Caption' styles='MyFirstFontStyle,MyFirstShadow'
    /> <apply toObject='Canvas' styles='MyFirstAnimationStyle' />
    <apply toObject='DataPlot' styles='MyFirstShadow'
/> </application>
```

Each <apply> element helps to apply multiple styles to one chart object; for example, in our code, we first apply the MyFirstFontStyle font style to Caption of the chart and then apply the shadow style MyFirstShadow to the same object.

If you are using multiple styles, ensure:

- you separate the style names using comma

  for example, <apply toObject='Caption' styles='MyFirstFontStyle,MyFirstShadow' />
- when you apply a single style to multiple objects, define <apply> element for each object and then assign the style for it.

  for example,

  <apply toObject='Caption' styles='MyFirstShadow' />

  <apply toObject='DataPlot' styles='MyFirstShadow' />

  You CANNOT separate the object list by comma and then assign a single style to it - the following is INVALID:

  <apply toObject='Caption,DataPlot' styles='MyFirstShadow' />
- The style name specified during application has been defined earlier in style definition and the spelling are correct, else, qChartView will ignore it and log the error in Debug Window.

Series Appearance

This property enables you to specify the appearance of the data series and data items in the series.

The Appearance element can contain one or more Series Appearance elements. Each Series Appearance element controls the appearance of the data series in the chart. Therefore, the first Series Appearance element controls the appearance of the first data series, the second one contains the second data series, and so on. See the Configuration property on how to define multiple data series in the chart.

The Series Appearance contains the following:

Table 35. Series Appearance

Element	Description
Advanced Mode	Turn on if you want to edit Series Appearance in XML format: <Appearance> <SeriesAppearance [optional attributes]> <ItemAppearance [optional attributes] /> <ItemAppearance [optional attributes] /> </SeriesAppearances> <SeriesAppearance [optional attributes]> <ItemAppearance [optional attributes] /> <ItemAppearance [optional attributes]/> </SeriesAppearances> </Appearance>
Color	Allows you to set the color using which columns, lines, area of that dataset would be drawn.
Alpha	Allows you to set the alpha (transparency) of the entire dataset at the Series Appearance level. The range is from 0 - 100.
Ratio	Allows you to control the ratio of each color using a comma separated list of ratios, if you are showing columns as gradients,
Dashed	Allows you to set whether this dataset would appear as dashed.
Show Plot Border	Allows you to set whether to show the border of this dataset.
Plot Border Color	Allows you to set the color of the plot border.
Plot Border Thickness	Allows you to set the thickness of the plot border lines.
Plot Border Alpha	Allows you to set the alpha transparency of the plot border lines

Table 35. Series Appearance

Element	Description
Line Thickness	Allows you to set the thickness of the lines for the particular dataset in pixels.
Line Dash Length	Allows you to define the length of the dash, if the lines are to be shown as dash for the particular dataset.
Line Dash Gap	Allows you to define the length of the gap between dashes, if the lines are to be shown as dash for the particular dataset.
Draw Anchors	Allows you set whether to draw anchors for the particular dataset. If the anchors are not shown, then the tool tip and links will not work for the dataset.
Anchor Sides	Allows you set the number of sides that the anchors of the particular dataset will have. For example, an anchor with 3 sides would represent a triangle, with 4 it would be a square and so on. The range is from 3 - 20.
Anchor Radius	Allows you to set the radius (in pixels) of the anchors of the particular dataset. Greater the radius, bigger would be the anchor size.
Anchor Border Color	Allows you set the border color of anchors of the particular dataset. Use hex code of colors. To use the color picker, click on the color swatch square.
Anchor Border Thickness	Allows you set border thickness of anchors of the particular dataset in pixels.
Anchor Background Color	Allows you set the background color of anchors of the particular dataset. Use hex code of colors. To use the color picker, click on the color swatch square.
Anchor Alpha	Allows you set the alpha of entire anchors of the particular dataset. If you need to hide the anchors for the dataset but still enable tool tips, set this as 0.
Anchor Background Alpha	Allows you set the alpha (transparency) of anchor background of the particular dataset. The range is from 0 - 100.

The Series Appearance element can contain zero or more Item Appearance elements. If you do specify any Item Appearance element, every item in the series is displayed according to the settings in the Series Appearance element. The Item Appearance is applied as follows:

- If you specify the Item Value in the Item Appearance, the settings are applied based on the X axis value of the item. For example, if the X axis shows the value of the Priority field in the Tasks list, you can make all the High priority items displayed in red.
- If you specify Y Axis Value Range in the Item Appearance, the settings are applied based on the Y axis value of the item. For example, you can highlight any data items that falls within a certain range with a certain color (low sales number with red, high sales number with blue).
- If neither is specified, the settings are applied in the order they are listed. This means the first Item Appearance controls the appearance of the first data item in the series, the second one controls the second data item in the series, and so on. In this case, if the data series has more items to display than the number of Item Appearance, the remaining items are displayed with the settings specified by the Series Appearance. Having said this, it is better to define more Item Appearance elements when you have a variable number of items to display in the chart.

Item Appearance contains the following:

Table 36. Item Appearance

Element	Description
Item Value	Allows you to specify the settings in the Item Appearance element that are applied to the data items whose X axis value match with the specified value.
Y Axis Value Range	Allows you to apply the color is applied based on the Y axis value of the item, if you specify Y Axis Value Range,

Table 36. Item Appearance

Element	Description
Color	Allows you to define the color of data series at the Series Appearance level for multi-series and combination charts. However, if you wish to highlight a particular data item, you can specify its color at Item Appearance level.
Display Value	Allows you to display a custom string value if instead of the numerical value of this data.
Tooltext	Allows you to display more information for the data item as tool tip. By default, qChartView shows the series Name, Category Name and value as tool tip text for that data item.
Alpha	Allows you to define the alpha of datasets at the Series Appearance level for multi-series and combination charts, However, if you wish to highlight a particular data item, you can specify its alpha at Item Appearance level using this attribute. The range is from 0 - 100.
Dashed	Allows you to set whether the border of this data item should appear as dashed.
Anchor Sides	Lets you specify item specific sides of the anchor in a line/area chart. The range is from 3 - 20.
Anchor Radius	Lets you specify item specific radius (in pixels) of the anchor in a line/area chart.
Anchor Border Color	Lets you specify item specific border color of the anchor. Use hex code of colors. To use the color picker, click on the color swatch square
Anchor Border Thickness	Lets you specify item specific border thickness in pixels) of the anchor in a line/area chart.
Anchor Background Color	Lets you specify item specific background color of the anchor in a line/area chart.
Anchor Alpha	Lets you specify item specific alpha (transparency) of the anchor in a line/area chart. The range is from 0 - 100.
Anchor Background Alpha	Lets you specify item specific alpha (transparency) of the anchor background in a line/area chart. The range is from 0 - 100.

Toolbar

The Toolbar Appearance Tab contains the following:

Table 37. Toolbar Appearance

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show Return to Master Chart Button	If selected, displays the Return To Master Chart Button. This button will appear only if the Source parameter exists in the URL of the current page. When the user clicks this button, the user is returned back to the URL specified in the Source HTTP parameter.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 38. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.

Table 38. Layout

Element	Description
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 39. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 40. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 41. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

Table 41. Localization

Element	Description
Return to Master Chart Button Text Resource ID	By default, the text for the Return to Master Chart toolbar button is retrieved from the resource file that is included in the product. If the resource file in the culture that you want to use is not available, define the text for the Return to Master Chart toolbar button in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Filter Button Text Resource ID	By default, the text for the Filter toolbar button is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Filter toolbar button in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

qChartView Procedures

You can perform the following procedures using qChartView:

- Configuring qChartView
- Formatting Links
- Setting Number Formatting
- Setting Number Scaling
- Using MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDual YAxis Charts

Configuring qChartView

To configure qChartView

1. Add qChartView to your page.
2. Open **ezEdit**.

   The Primary Content page opens by default.
3. Configure each element as needed and click **OK**.
4. If needed, configure the elements in the other tabs.
5. When done configuring each tab, click **OK**.

Formatting Links

You can perform the following procedures with links:

- Defining Links for a Chart
- Opening Links in a New Window
- Linking to Frames
- Setting Number Formatting

Defining Links for a Chart

To define a link for any data plot

1. From Chart Attributes, click **Edit**.
2. Click **Functional**.
3. In the Click URL field, define the link attribute as in the following example: link='ShowDetails.asp%3FMonth%3DJan'

   With the above XML, the data plot (be it column, pie or line/area anchor), when clicked, will take to the page ShowDetails.asp?Month=Jan, which might contain another chart to show detailed results for the month of January.

   The chart view expects all the links in URL Encoded format, if you have characters special characters (such as ?,&) in your link. When the user clicks the link, the chart view decodes it and invokes ShowDetails.asp?Month=Jan.

   All the server-side scripting languages provide a generic function to URL Encode any string.

Opening Links in a New Window

You can open the link in a new window instead of the same window.

To open a link in a new window

1. From Chart Attributes, click **Edit**.
2. Click **Functional**.
3. In the Click URL field, add n- before any link, as in the following example:, link='n-ShowDetails.asp%3FMonth%3DJan'

   The above link, when clicked, opens in a new window.

Opening Links in Pop-up Windows

The chart view also allows you to open your links in pop-up windows.

To open a link in pop-up window

1. From Chart Attributes, click **Edit**.
2. Click **Functional**.
3. In the Click URL field, define the link as in the following example: link="P-detailsWin,width=400,height=300,toolbar=no,scrollbars=no, resizable=no-ShowDetails.asp%3FMonth%3DJan"

   Where:

   - P- denotes that the link is to be opened in a new pop-up window.
   - detailsWin specifies a name for the new window. If you want all the links to open in the same pop-up, use the same window name across all links. However, if you want each link to open in a new pop-up, specify a different window name for each link.
   - height specifies the height of the window in pixels.
   - width specifies the width of the window in pixels.
   - resizable when enabled, allows the user to manually resize the window by dragging its edges or corners.

NOTE: You can include other attributes, such as:

- menubar specifies whether or not to display a menu bar at the top of the window.
- toolbar specifies whether or not to display the main toolbar (with the back, forward, stop buttons).
- location specifies whether or not to display the location bar (the Address Bar in Internet Explorer®) - where URLs are typed and displayed.
- directories specifies whether or not to display any additional toolbar (for example, the Links Bar in Internet Explorer).
- status specifies whether or not to display the status bar at the foot of the window.
- left specifies the distance in pixels of the new window from the left edge of the screen. (This applies to Internet Explorer. For Netscape Navigator® use screenX).
- top specifies the distance in pixels of the new window from the top edge of the screen. (This applies to Internet Explorer. For Netscape Navigator use screenY).
- fullscreen when enabled causes the window to open in full-screen mode (Internet Explorer only.)
- scrollbars specify whether or not to display the horizontal and vertical scrollbars that normally appear when the page content is larger tan the screen.
- -ShowDetails.asp%3FMonth%3DJan denotes the actual link to be invoked

Linking to Frames

The chart view allows you to open links in specified frames too. To do so, you just specify the name of the frame in the link itself.

To open link in a specified frame

1. From Chart Attributes, click **Edit**.
2. Click **Functional**.
3. In the Click URL field, set the link as in the following example: link='F-FrameName-ShowDetails.asp%3FMonth%3DJan'

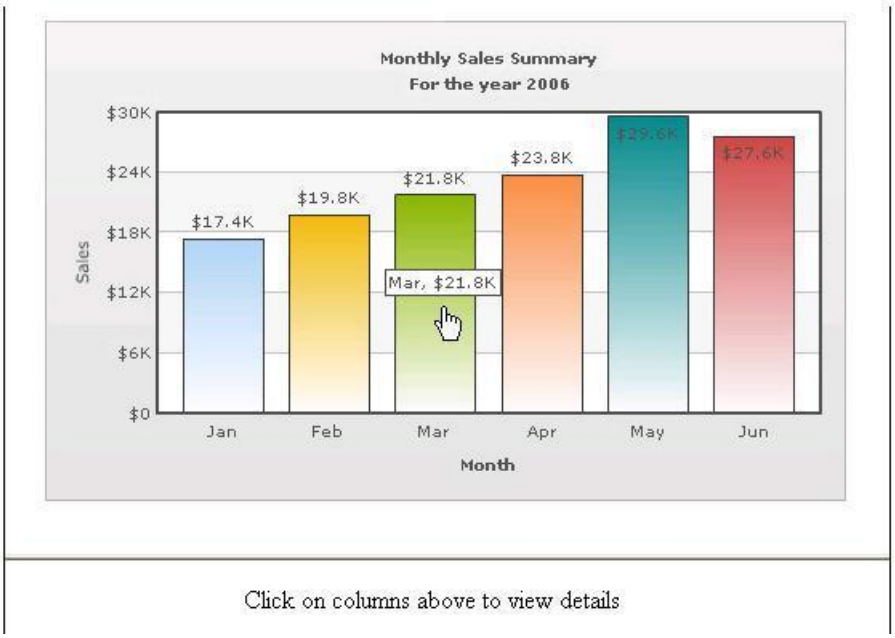
   Where:

   - F denotes the link opens in a frame
   - -FrameName denotes the name of the frame to be opened
   - -ShowDetails.asp%3FMonth%3DJan denotes the actual link to be opened. The link needs to be URL Encoded.

In this example, the main frameset is contained in FrameExample.html, which has two vertical frame pane- one on top containing the chart (FramePages\FrameChart.html) and one on bottom to show the linked frame pages. The bottom pane by default shows FramePages\LowerFrame.html which contains the message "Click on columns above to view details".

The setup looks like the following:

Figure 17. Linking to Frames



Setting Number Formatting

You can perform the following procedures:

- Controlling Decimal Precision
- Automatic Number Formatting
- Setting Custom Thousand and Decimal Separator Character
- Adding Number Prefix and Suffix
- Formatting Y-axis Values Decimal in Manual Div-Lines Mode

Controlling Decimal Precision

All the charts types in qChartView support the attribute decimals. This single attribute lets you control the decimal precision of all the numbers on the chart. Using this attribute, you can globally set the number of decimal places of ALL numbers of the chart.

To globally set the number of decimal places

1 From Chart Attributes, click **Edit**.

2 Click **Number Formatting**.

3 Enter a value in the Decimal box.

4 Click **Save**.

For example, if you have numbers on your chart as 12.432, 13.4 and 13 and you set Decimals='2' , the numbers would be converted to 12.43, 13.4 and 13 respectively.

Figure 18. Controlling decimal precision

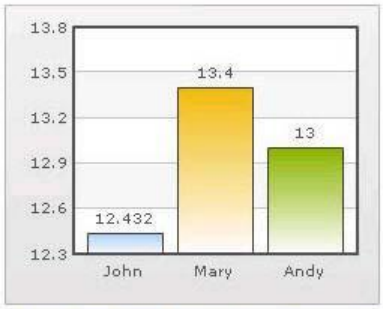
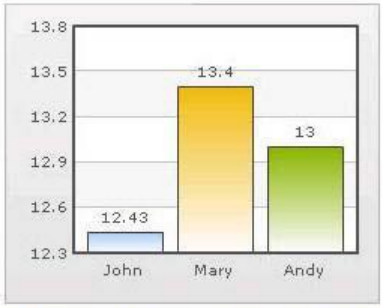


Chart without any decimal formatting applied

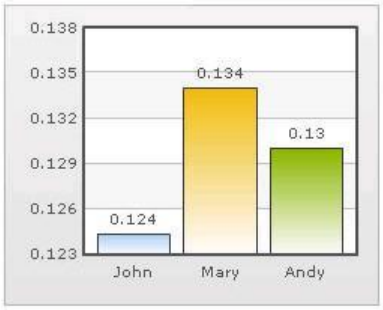


With decimals set to 2 (see the first column value

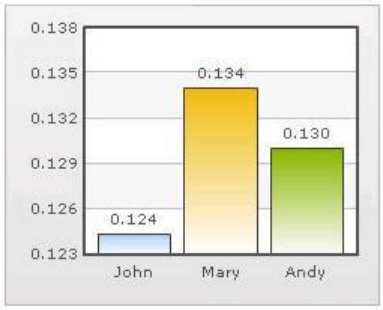
Similarly, if you had data as 0.12342, 0.134 and 0.13, and you set Decimals as 3, qChartView would output 0.124, 0.134 and 0.13 respectively.

Even though the Decimals is set to 3, qChartView does not add the 0 padding to 0.13 to form 0.130. However, if you want your numbers on the chart to have trailing zeroes too, you can set Force Decimals=true and now the numbers would show as 0.124, 0.134 and 0.130 respectively, as shown in these examples:

Figure 19. Force decimals



Trailing zeroes missing in last column's value.

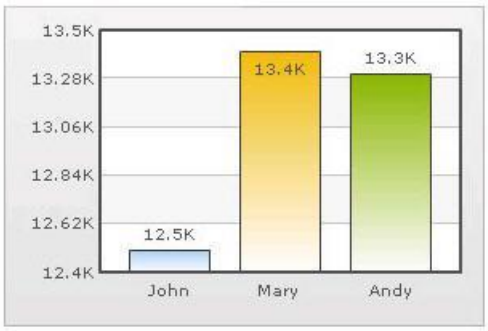


Forcing trailing zeroes by setting forceDecimals='

Automatic Number Formatting

qChartView automatically formats your numbers by adding K,M (Kilo, Million) and proper commas to the numbers, as shown in this example:

Figure 20. Automatic Number Formatting



The data for chart is 12500, 13400 and 13300. qChartView automatically formats the number scaling to convert to K (Thousands) & M (Millions).

If you do not want to truncate numbers

1 From Chart Attributes, click **Edit**.

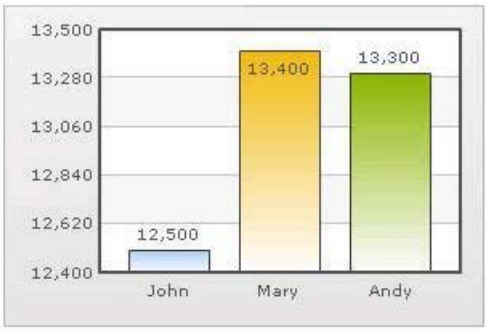
2 Click **Number Formatting**.

3 From Format Number Scale, select **False**.

4 Click **Save**.

When you now view the chart, you will see the following:

Figure 21. Not truncating numbers



In the example above, qChartView is showing full numbers on the chart. It has also added commas to the numbers at the required places.

If you do not want to set commas

1 From Chart Attributes, click **Edit**.

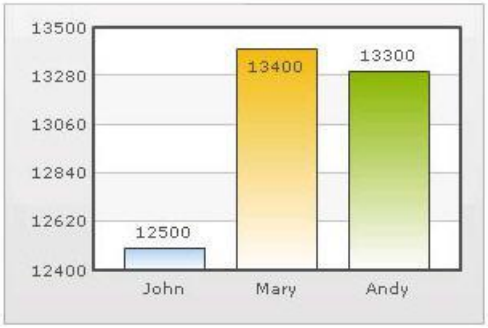
2 Click **Number Formatting**.

3 From Format Number, select **False**.

4 From Format Number Scale, select **False**.

5 Click **Save**.

Figure 22. Not setting commas



The commas have been removed from numbers.

Setting Custom Thousand and Decimal Separator Character

By default, qChartView uses . (dot) as decimal separator and , (comma) as thousand separator character. However, you can customize this character depending on your requirements. For example, you can swap the separator characters.

To swap separator characters

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the In Decimal Separator, enter **,**.
4. In the In Thousand Separator, enter **.**.
5. Click **Save**.

Figure 23. Swap separator characters

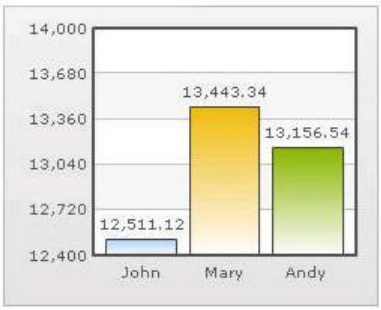


Chart with default decimal and thousand separator. FusionCharts by default separates thousands using commas and decimals using dots.

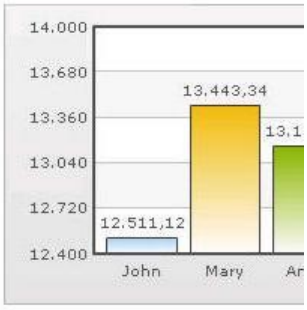


Chart with swapped decimal and th separator character.

Adding Number Prefix and Suffix

qChartView allows you to add a prefix or suffix to all numbers on the chart.

To add a number prefix or suffix

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the Number Prefix box, enter a character or value.

   For example, to represent dollar figures, enter $.
4. In the Number Suffix box, enter a character or value.

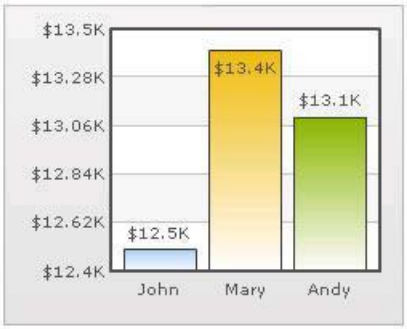
   For example, to represent figures quantified per annum, enter p.a.
5. Click **Save**.

If you intend to use special characters for Number Prefix or Number Suffix, URL Encode them when using dataXML method. For example, if you wish to have numberSuffix as % (for example, 30%):

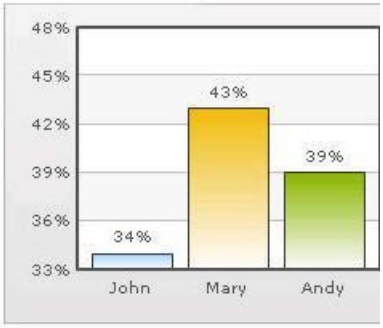
numberSuffix='%25'

In dataURL method, you can directly specify the character.

Figure 24. Adding number prefixes and suffixes



Number Prefix set as $ for the chart



Number Suffix Set as %

Formatting Y-axis Values Decimal in Manual Div-Lines Mode

If you want to set the number of divisional lines on chart, you can control the decimals of y-axis values separately. For example, consider the following attributes and chart:

Y Axis Min Value='115' Y Axis Max Value='140' Zero Plane=false Number of Division Lines='3'>

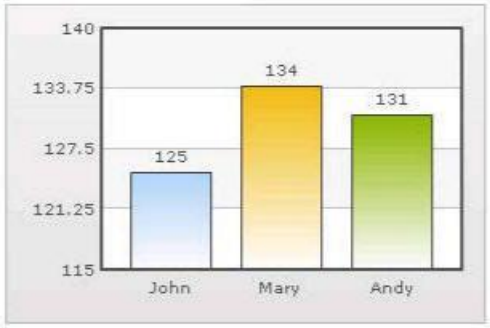
In this chart, the chart lower limit, upper limit, and number of divisional lines have been manually set. qChartView will not automatically adjust divisional lines. In the chart, qChartView has truncated decimals from y-axis values, as it cannot find any other decimal values on the chart.

You can, however, show decimals on y-axis values in this case (when Zero Plane is false) using Y Axis Value Decimals attribute, for example Y Axis Min Value='115' Y Axis Max Value='140' Zero Plane=false Number of Division Lines='3' Y Axis Value Decimals='2' Decimals='0' >.

NOTE: Force Decimals does not work in this mode.

When you now see the chart, 2 decimal places on y-axis values appear. But, the other numbers on chart would still have 0 decimal places.

Figure 25. Formatting y-axis

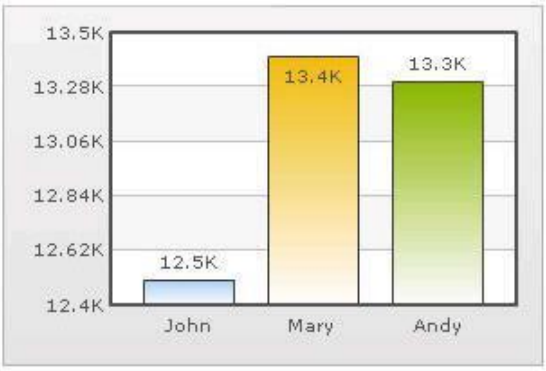


Setting Number Scaling

Number scaling lets you define your own scales for numbers and then apply it to all numbers on the chart.

For example, if your numbers on the chart are greater than 1000, qChartView scales them to K (Thousands) or M (Millions). For example, if you plot a chart with data as 12500, 13400 and 13300, you will see the following chart:

Figure 26. Setting number scaling



qChartView has scaled the numbers down to K. By default, qChartView has the K,M (1000,1000) scaling defined for each chart. You can, however, customize it.

You can perform the following procedures:

- Adding Billions to Default Scaling
- Putting Time in Scale

Adding Billions to Default Scaling

qChartView, by default, has 1000,1000 (K,M) scaling defined for all charts. It does not have the scaling for billions defined. You can modify the number scaling to add billion so that the final scale looks like 1000,1000,1000 (K,M,B).

This scale would look something like:

- 1000 = 1 K
- 1000 K = 1 M
- 1000 M = 1 B

To convert this scale into qChartView format

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the Number Scale Value box, enter 1000,1000,1000.
4. In the Number Scale Unit box, enter K,M,B.
5. Click **Save**.

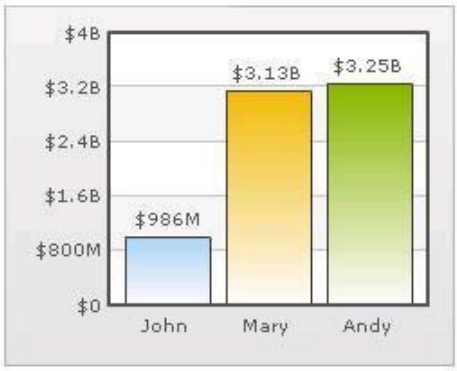
   Whatever numeric figure was present on the left hand side of the table is put in Number Scale Value and whatever unit was present on the right side of the scale table has been put under Number Scale Unit - all separated by commas.

If you want to set the chart formatting flags

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. From Format Number, select **True**.
4. From Format Number Scale, select **True**.
5. In the Number Prefix box, enter **$**.
6. Click **Save**.

When you now view a chart containing data in billions, you will see the following chart. Note that the chart now contains figure both in millions and billions.

Figure 27. Setting chart formatting



Putting Time in Scale

If you want to plot time-related figures on the chart, you can set the time in each process to range from a few seconds to few days. You can build a scale indicating time and then specify it to the chart:

- 60 seconds = 1 minute
- 60 minute = 1 hr
- 24 hrs = 1 day
- 7 days = 1 week

To convert this scale in qChartView

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the Default Number Scale box, enter **s**.

   The default number scale is now represented in seconds.
4. In the Number Scale Value box, enter **60,60,24,7**.
5. In the Number Scale Unit box, enter **min,hr,day,wk**.
6. Click **Save**.

   Whatever numeric figure was present on the left hand side of the table is put in Number Scale Value and whatever unit was present on the right side of the scale table has been put under Number Scale Unit - all separated by commas.

If you want to set the chart formatting flags

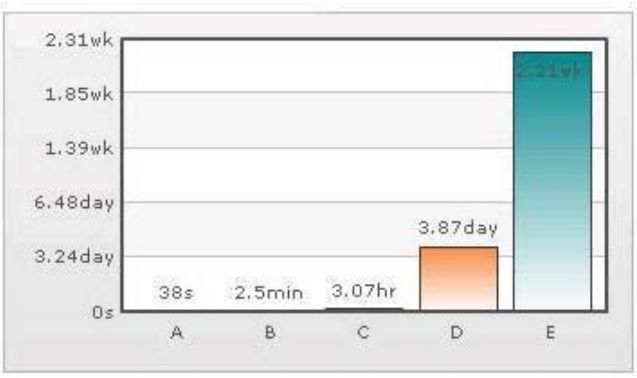
1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. From Format Number, select **True**.
4. From Format Number Scale, select **True**.
5. Click **Save**.

   When you now view the chart, you'll see that all the data has been automatically scaled to the best value:

   - 38 is converted to 38s

- 150 is converted to 2.50min
- 11050 is converted to 3.07hr
- 334345 is converted to 3.87 day
- 1334345 is converted to 2.21wk

Figure 28. Time scaling



Using MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDual YAxis Charts

To use MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDualYAxis

For example, you want to use a list that shows total sales for products and services from 2001-2006.

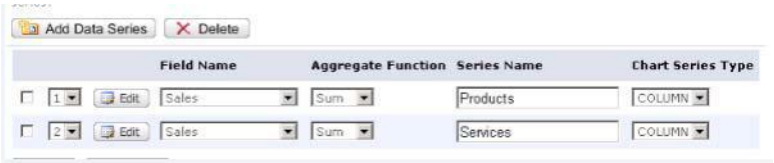
1 Open qChartView in ezEdit.

2 Edit the Viewed Lists section and select a list.

3 In the Chart Type section, select **MultiSeriesStackedColumn2D** or **MultiSeriesStackedColumn2DLineDualYAxis**.

4 Edit the Configuration section, and select a field name; for example, Year.

5 Click **Add Data Series** and add two data series; for example:



Each series represents a stack within group of stacks.

6 Click **Edit** in each data series and enter a filter expression. This step is optional. Use a filter expression only if your data is a subset of all list data.

In this example, Products and Services are subsets for the overall Sales list, enter a filter expression such as ProductType='Product' for the Product series and ProductType="Services' for the Services series.

7 Select a filter field name for each data series; for example, Name.

NOTE: You can use the same field name in each series if you enter a filter expression.

qChartView stacks the data according to filter field’s value. If the Filter Field Name is not set, the chart is not rendered as stack.

Each series represents a stack within group of stacks.

6

qDiscussionView

- Overview
- qDiscussionView Pages
- qDiscussionView Procedures

Overview

qDiscussionView allows you to view multiple discussions lists at once. These discussion lists can reside in another site, another site collection, or another web application as long as they are in the same configuration database.

qDiscussionView Pages

You can configure this web app through its pages that are accessible through ezEdit. qDiscussionView contains the following pages:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Filtering
- Search/Filter Panel
- Sorting

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Viewed Lists	See Viewed Lists on page 100.
Display Fields	See Display Fields on page 103
ID HTTP Parameter Name	Allows the qDiscussionView and several other web apps to an HTTP Parameter called ID to identify the item to be displayed or edited. This HTTP Parameter is usually generated automatically by the viewer web app, when you select an item to be displayed or edited. **NOTE:** If qDiscussionView is placed on a web app page that is contained within a document library, the page will generate an error if the value of the ID HTTP Parameter is bigger than the number of pages within the document library. To prevent this error from happening, rename the ID HTTP Parameter. By default, the value of this property is "ID". You can change the value of this property to something else, such as LID. In that case, when you select "View Properties" or "Edit Properties" in the context menu, the URL of the display or edit form becomes: http://mysite.com/EditFormURL.aspx?LID=xxx **NOTE:** Set the same property in the qListForm to the same value.

Viewed Lists

The Viewed Lists section defines:

- the discussion lists whose data is viewed in qDiscussionView and how it is aggregated. You can define the lists to be aggregated one by one, in a Rolled-Up list, or from lists with a particular name from all the subsites (recursive rollup)
- the dependent lists for each list. If the Dependent Lists information is provided, qDiscussionView will check whether or not there are child records in the Dependent Lists when you delete items from the view. If there are any, qDiscussionView will not delete the selected items.

You will need the qListForm web app in order to establish a relationship between different lists.

The following are the elements for the Viewed List attribute:

Table 2. Viewed Lists

Element	Description
Advanced Mode	Turn on if you want to edit Viewed Lists in XML format: <Lists> <List SiteUrl="siteUrl" ListName="listName" IncludeSubsites="true/false" IncludeThisSite="true/false" IsRollupList="true/false" SiteUrlFieldName="fieldName" RolledUpListName="listName" TargetUrl="targetUrl" SetSessionName="sessionName" ResetSessionNames="name1, name2" NewFormUrl="URL" EditFormUrl="URL" DisplayFormUrl="URL"> <!-- To define dependent lists, add a DependentLists element inside the List element --> <DependentLists> <List SiteUrl="siteUrl" ListName="listName" KeyFieldName="keyFieldName" /> <List SiteUrl="siteUrl" ListName="listName" KeyFieldName="keyFieldName" /> </DependentLists> </List> <List ...></List> <List ...></List> </Lists>
Site URL	The URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	The name of the SharePoint list that is edited or displayed by this Discussion View. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list, you can use a single dot (.) as the list name. **NOTE:** This only works if the qDiscussionView is contained in the AllItems.aspx. For example, if you are replacing the Microsoft® Discussion View in the AllItems.aspx of the Tasks list and you use a single dot as the ListName attribute, the ListName attribute of the qDiscussionView is set to Tasks. If you want to save the list as a template and then add it somewhere else, the name of the new list might not be Tasks and using this relative list name will automatically pick up the new list name for the view.
Include Subsites	If set to true, the Discussion View will search all the subsites for a list whose name specified in the ListName and aggregate the information from those list. **NOTE:** If you have many subsites, the information may take a long time to aggregate. Use this attribute if you have only a small amount of subsites. You must test this feature in your environment to see whether or not the response comes back in a reasonable amount of time and the request does not time out.
Include This Site	Used in conjunction of the IncludeSubsites attribute. If you set this property to true, the list in the current site will be aggregated by the Discussion View. The current site is the site whose URL is specified in the SiteUrl attribute.
Is Rollup List	Indicates whether or not the list specified by the SiteUrl and ListName attributes contains the Site URLs of the lists to be aggregated instead of the data to be aggregated. If you set this to true, the list specified by the SiteUrl and ListName must have a field that contains the URL information. By default, the name of that field is Site URL. If you use different field name, specify the name using the SiteUrlFieldName attribute.

Table 2. Viewed Lists

Element	Description
Rolled Up List Name	Used in conjunction with the IsRollupList property, indicates the name of the lists to be rolled up if you set the IsRollupList to true. If you want to aggregate more than one list from each site specified in the rollup list, you can define more than one List elements with the same rollup list, but different RolledUpListName. For example, if you want to aggregate Public Library and Private Library document libraries from each site, you can specify the following: <Lists> <List SiteUrl="." ListName="Project Sites" IsRollupList="true" SiteUrlFieldName="Project Site URL" RolledUpListName="Public Library" /> <List SiteUrl="." ListName="Project Sites" IsRollupList="true" SiteUrlFieldName="Project Site URL" RolledUpListName="Private Library" /> </Lists>
Site URL Field Name	Used in conjunction with the IsRollupList property, indicates the field that contains the Site URLs of the lists to be aggregated. This attribute is optional if the field name is Site URL. **NOTE:** The Site URL field must be a single line of text field.
Active Field Name	Used in conjunction with the IsRollupList property. The rollup list may contain a Yes/No field to indicate whether or not a particular site should be included in the rollup. This property is optional if the name of this field is Active. **NOTE:** The Active field must be a Yes/No field.
Reset Session Names	Resets (sets to NULL) the value of the session variables whose name is specified in this attribute. You can specify multiple names by separating them with commas; for example TaskSession, IssueSession. You can reset the session name if a discussion may have one or more tasks associated with it. In addition to storing the selected discussion in the session, you may store the dependent task information in the session as well. This means that every time you store a new discussion into a session, you need to reset the dependent task information from the session as well.
Set Session Name	Defines the name of the session variable where the Discussion View will store the item whose column is being clicked by the user. The user can click the item if one of the LinkTo, LinkToTarget or the LinkToSource attributes in the Display Fields property is defined. This attribute is usually used if you have another web app (such as the qListForm) that can consume the stored values from the session. You can set the session name when you want to consume the item from a session variable in a qListForm later.
Target URL	When the LinkToTarget attribute of a specific column is set to true (in the Display Fields property), the data in that column becomes a hyperlink to the URL specified in this attribute. **NOTE:** The TargetUrl can use the <%field name%> field replacement expression. If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and > respectively. Use the LinkToTargetUrl attribute if you want each list to have a different URL; for example, when you want to aggregate multiple lists from the same workspace and connect a certain column to the display form of the list. In that case, the URL to the display form of each list is different.
New Form URL	Indicates the URL where the form to create a new item resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when one of the New buttons in the toolbar is clicked. If not defined, the user is redirected to the NewForm.aspx of the list (or Upload.aspx for the document library). Redefining the New Form URL is useful if you have different way of creating an item depending on the current view. For example, in the view for external vendor, you may want to give them a new form that does not contain all the fields in the list. **NOTE:** The Source HTTP parameter is automatically appended to the New Form URL during redirection. This attribute is usually used in conjunction with qListForm.

Table 2. Viewed Lists

Element	Description
Reply Form URL	Indicates the URL where the form to create a new response resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the Reply button in the toolbar or in the preview panel or the Reply context menu item is clicked. If not defined, the user is redirected to the URL specified in the NewFormUrl, if one is defined. Otherwise, the user is redirected to the NewForm.aspx of the list. Redefining the Reply Form URL is useful if you want to have a different form to create a reply than the one that is used to create a new discussion. For example, in the form to create a reply, you may want to use 2 qListForms. The first qListForm is used to display the detail of the parent discussion and the second qListForm is used to create the response itself. **NOTE:** The Source HTTP parameter is automatically appended to the Reply Form URL during redirection. This attribute is usually used in conjunction with qListForm.
Edit Form URL	Indicates the URL where the form to edit an item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the user clicks Edit Properties in the Context Menu. If not defined, the user is redirected to the EditForm.aspx of the list. Redefining the Edit Form URL is useful if you have different ways of editing an item depending on the current view. For example, in the view for external vendor, you may want to give them an edit form that does not contain all the fields in the list. **NOTE:** The ID and Source HTTP parameters are automatically appended to the Edit Form URL during redirection. This attribute is usually used in conjunction with qListForm.
Display Form URL	The URL where the form to display an item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the user clicks View Properties in the Context Menu. If not defined, the user is redirected to the DisplayForm.aspx of the list. Redefining the Display Form URL is useful if you have different way of displaying an item depending on the current view. For example, in the view for external vendor, you may want to give them a display form that does not contain all the fields in the list. **NOTE:** The ID and Source HTTP parameters are automatically appended to the Display Form URL during redirection. This attribute is usually used in conjunction with qListForm.
Site URL	The URL to the site that contains the dependent list.
List Name	The name of the dependent list. The list name is case sensitive.
Key Field Name	The name of the field in the dependent list that contains the ID of the parent item. It is the foreign key in the dependent list. The key field is usually a single line of text that contains the parent item ID or a cross-site lookup field to the parent list. The name is case sensitive.

Display Fields

This property defines the fields that should be displayed in the tree list panel of qDiscussionView.

The Display Field contains the following elements:

Table 3. Display Fields

Element	Description
Advanced Mode	Turn on if you want to edit Display Fields in XML format: <Fields LookupThresholdControlSettings=”On”> <Field Name="fieldName" [optional attributes]/> <!-- Grouped field --> <Field Name="fieldName" Grouped="true" SortDirection="asc|desc" GroupExpanded="true|false" /> </Fields>
Query All Fields	Controls how Web apps behave in relation to the Discussion View Lookup Threshold in SharePoint Resource Throttling. The options are: • Default — uses the level set in the Configuration Editor. If you have selected Query All Fields check box in the Configuration Editor, the Web app will query only those fields that are not included in the Discussion View Lookup Threshold. If the Query All Fields check box is cleared, the Web app will query all fields. • On — If the Web app level is On, the Web app queries all fields in lists, except Lookup fields. • Off — If the Web app level is Off, the Web app queries all fields in lists, including Lookup fields. • Explicit — If the Web app level is Explicit, the Web app queries only those fields selected in the Display Fields. This option renders the best performance for your Web app.
Title	Indicates the title of the field. This is useful if the real field name is too long and you want to abbreviate the title in the field header, or if you simply want to display a different title in the field header. If this attribute is not specified, the value specified in the Name attribute is used in the field header. For example: <Field Name="Created By" Title="Author" />
Title Resource ID	Indicates the identifier in the Resource List that is used as the title of the field. The TitleResourceID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default Title is used.
Width	Indicates the width of the field. You can specify the value in pixels (Width="20px") or percentage (Width="20%"). We recommend leaving at least one field where you do not specify this property. That field will take up the remaining width of the page. For example: <Field Name="Subject" Width="100px" />
Align	Indicates the horizontal alignment for the field. The values is one of the following: left, right, or center. For example: <Field Name="Created" Align="right" />
Item Style	Indicates the style for the item. You can define the style as you would in a CSS class; for example, color: red; font-weight: bold
Item CSS Class	Indicates the distinct style for the column and you already have defined the style in an external CSS file.
Display Field Name	If specified, indicates a cross-site lookup field. It contains the name of the field in the cross-site list that contains the value to be displayed. The field name is case sensitive. A cross-site lookup field enables you to lookup a list that resides in another site, another site collection, or another web application as long as it is in the same configuration database. You need the qListForm web app to create a cross-site lookup field.

Table 3. Display Fields

Element	Description
Display Format	If specified, indicates a cross-site lookup field. It contains the format of the value that is displayed. Define this attribute if you want to display values from multiple fields. You can use the field replacement expression <%Field%> to refer to a field. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the Discussion View Editor, where the Editor will encode the characters automatically for you. **NOTE:** For more information, see Display Format on page 14.
Show User Groups	Allows you to show groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Hide User Groups	Allows you to hide groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Hyperlink Field Target	If this field is a SharePoint Hyperlink or Picture field, indicates the target window for the hyperlink. For example, use "_blank" if you want to open the target URL in a new window. If this attribute is left blank, the target URL will open in the current window. This attribute will not affect the hyperlink column created with the LinkTo, LinkToSource or LinkToTargetURL attributes.
Link To	Indicates that the Discussion View will turn the field into a hyperlinked column to the specified URL. The URL can be an absolute or relative URL. The LinkTo can use the <%field name%> field replacement expression. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the Discussion View Editor, where the Editor will encode the characters automatically for you. If you use a relative URL, the URL is appended to the site URL of the target site. For example, specify "Lists/TeamDiscussion/EditForm.aspx?ID=<%ID%>" as the value of this property. If you click a customer record that comes from the Customers list in Workspace A, whose site URL is "http://mydomain/sites/mysite", you are directed to http://mydomain/sites/mysite/Lists/TeamDiscussion/EditForm.aspx?ID=23 (assuming you click the discussion with ID=23). Here is an example on how to make the Subject field a hyperlink column to the edit form of the Discussion list: `<Field Name="Subject" LinkTo="Lists/TeamDiscussion/EditForm.aspx?ID=<%ID%>&Source=../../default.aspx" />`
Link To Target	If set to true, indicates the Discussion View will make the field value a hyperlink to the URL specified in the TargetUrl attribute in the Viewed Lists property. Use this element when you aggregate lists with different name. In that case, you specify a different TargetUrl for each list in the Viewed Lists property and the Discussion View will redirect the user to the correct URL depending on the list where the clicked item comes from.
Link To Source	The Discussion View will make the field value a hyperlink to the URL specified in the Source HTTP parameter of the current request. For this option to work, the current page URL must look like: http://.....?Source=.... Use this element when the URL for the hyperlink is dynamic. This could be because it contains dynamic parameters or the URL is different depending on the referral page. Also, when you want to make the URL in the link dynamic. In that case, you can pass in the URL for the link into the HTTP parameter of your page.

Table 3. Display Fields

Element	Description
Is Complex Category	If selected, you can set the following: • Complex Category Index Site URL — By default, the complex category index list resides in the same site as the discussion list itself. If this is not the case, then you must specify the URL of the site that contains the index list here. • Complex Category Index List Name — By default, the complex category index list is named "<Discussion list name> Categories". For example, if your discussion list name is "Team Discussion", then its index list name is "Team Discussion Categories". If this is not the case, then you must specify the name of the index list here.
Grouped	Allows you to group data by: • Sort Direction — This attribute determines whether the values in the header of the grouped field must be displayed in ascending or descending order. The options are asc for ascending order or desc for descending order. The default value is asc. • Group Expanded — If set to true, the group is initially expanded. Otherwise, it is collapsed. If not specified, the default value is false. **NOTE:** Grouping is not supported on any field that has "Allow Multiple Values" enabled.

Filtering

The Filtering page allows you to use CAML filters to dynamically filter records.

The Filtering page contains the following:

Table 4. Filtering

Element	Description
CAML Filter	Allows you to specify the CAML (Collaboration Application Markup Language) query expression to filter your data. CAML is an XML-based query language. The CAML Filter will only be applied to the data. The filter will not be applied to the responses. For more information, see CAML Filters on page 19.

Search/Filter Panel

The Search/Filter Panel allows you to define the panels for search, filter, and replace in the web app.

The Search/Filter Panel contains the following elements:

Table 5. Search/Filter Panel

Element	Description
Searched Fields	See Searched Fields on page 107.
Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.
Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.
Show Apply On Top Level Discussions Only in search panel	Determines whether the check box, “Apply only on Top Level Discussions”, is shown in the filter panel. If you check this check box when performing the search, the qDiscussionView will filter only the top level discussion and the search results will be shown in the structure they are supposed to be (under the correct grouping, etc). If you clear this check box when performing the search, the search results will be displayed in a flat structure.

Table 5. Search/Filter Panel

Show Search All Fields Control in Search Panel	Determines whether the Filter panel should display the control to search all fields in the list. When set to true, the following control is shown in the Filter panel: The Search All Fields Control allows you to do the following: • Combine the search all fields functionality with other search criteria that has been entered for specific fields. • When the search all fields criteria is entered, the Filter panel will construct a filter expression with the "Contain" operator for the following fields in the list: Single line of text, Multiple lines of text, Choice, Lookup (only Lookup to a Single Text field and Lookup to a Number field are supported), Person or Group and Hyperlink or Picture. If the list contains a Lookup to Number field, Search All Fields will not work for negative numbers for that field. The Filter panel will use the entire keywords as the value to be searched. Therefore, if you enter "High Priority" in the search all fields control and perform the search, it will find the following sentence: 'This is a high priority task' However, it will not find the following sentence: 'The priority is not always high'
Turn On List Searcher Mode	Allows the user to perform a search before the listview display any data.

Searched Fields

This property defines which fields are displayed in the Filter panel. If defined, the discussion view displays Filter or Search menu items under the Actions button in the toolbar. To disable the search feature in the discussion view, you can leave this property blank.

You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

NOTE: For the Number type field, the "Contain" operator is not supported for negative numbers, and is not available for the following fields: Lookup to DateTime field, Lookup to Calculated field, and Lookup to ID field.

You can further edit fields using the following elements:

Table 6. Searched Fields

Element	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format: <Fields> <Field Name="fieldName" [optional attributes]/> <!-- To search a cross site lookup field, use one of the following two formats --> <Field Name="fieldName" DisplayFieldName="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> <Field Name="fieldName" DisplayFormat="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> </Fields>
Field Name	Indicates the element you are editing.
Title	Displays title for the field. The value can be a plain string or an encoded HTML string.
Description	Describes the field. This is useful if you want to give a short instruction or explanation about the field.

Table 6. Searched Fields

Element	Description
Default Value	Defines the default value for the field. You can define a text, a number or a date. A date value must be specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ, for example: midnight of February 14, 2002 is 2002-02-14T00:00:00Z.
Default Operator	Defines the default operator for the field.
Fixed Operator	Defines the operator for the field. If specified, the list to select the operator for this field is turned off.
Use People Editor	Enables you to enter any user information that is in your directory service. If you set this to True and the field to be searched is a People and Group field, the Filter panel shows the People Editor control for entering the search criteria.
Column Count	Defines the number of columns for the options in a multi-choice field or in a choice-and-lookup field if the Enable Multi Choice attribute is set to True. This is useful in case your choice or lookup fields have too many choices and you want to break the choices into several columns to minimize the vertical scrolling in your form.
Enable Multi Choice	If set to True, allows you to select multiple options for the choice-and-lookup field. Therefore, the user can specify a condition like "A or B". This attribute is ignored by other field types. To search a cross-site lookup field, you must specify one or more List elements inside the Field element. The cross-site lookup field is displayed as two drop downs.
Sort Field	Defines the field that is used to sort the value in the drop-down menu. The field name is case sensitive.
Sort Order	Allows you to sort the values in ascending or descending order.
AutoPostBack	When set to true, this attribute causes the Filter panel to refresh when the user changes the selection in a lookup field or cross-site lookup field. You need to set AutoPostBack to true if this field is a lookup or a cross-site lookup field and it is being used to filter another lookup or cross-site lookup field in the Filter panel.
Parent Field	Defines another lookup or cross-site lookup field that is used to filter this field. The parent field must be listed before this field in the XML property.
Parent Filter Field Name	Defines the field in the parent field that is used to filter this field. It is the primary key in the list that is used in the lookup or cross-site lookup field.
Filter Field Name	Defines the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.
Display Field Name	Shows the name of the field whose value is displayed in the drop-down menu. The field name is case sensitive. Use this attribute instead of the Display Format attribute if you only want to display a single field in the drop-down menu.
Display Format	Indicates the format of the value that is displayed in the drop-down menu. Define this attribute instead of the Display Field Name attribute if you want to display multiple fields in the drop-down menu. You can use the field replacement expression <%Field%> to refer to a field. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Searched Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. **NOTE:** For more information, see Display Format on page 14.
Site URL	Indicates the Site URL of the field. You can use an absolute or relative URL
List Name	Indicates the name of the List. The field name is case sensitive.
Site Name	Indicates the name of the site specified in the Site URL. This is used in case you have multiple lists. In this case, the first drop-down menu to select the list will display as "List Name in Site Name". You can use any name for the Site Name. It does not have to match the real title of the Site.

Sorting

The Sorting page allows you to define the sorting criteria and paging type and size in the web app.

The Sorting page contains the following elements:

Table 7. Sorting

Element	Description
Sort Fields	Defines the initial sorting criterion for the data. This is the syntax for this property: FieldName1 [SortDirection], FieldName1 [SortDirection] SortDirection is either ASC (ascending order) or DESC (descending order). The FieldName and the SortDirection are case sensitive. If the SortDirection is not specified, ascending order is assumed. For example: First Name ASC, Last Name DESC, Company

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Views

Actions

The Actions page contain the following elements:

Table 8. Actions

Element	Description
Row Double Click Action	Allows you to select which action to perform when you double-click a row.

Views

The Views page allows you to set views so the user to view the data.

The Views page contains the following elements:

Table 9. Views

Element	Description
Search Session Name	The DiscussionView will store the search criteria, last selected folder, sort criteria, and other DiscussionView dynamic settings in the session variable with this name.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon

- View
- Toolbar
- Context Menu
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 10. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

View

The View page allows you to set views so the user to view the data.

The View page contains the following elements:

Table 11. View

Element	Description
Selection Column Type	Allows you to set the row selection type. The options are: • None: The user must click the row to select it. • MultiRowSelector: The discussion view will display a check box as the first column. To select a row, the user checks the check box for that row. To select multiple rows, the user checks the check box for each row to be selected.
Maximum Top Level Discussions Per Page	Allows you to set the maximum number of top level discussions to be displayed on one page.
Expand To Level	Allows you to determine how many levels should be expanded when the Discussion View is loaded for the first time.
Show Preview Panel	Allows you to display the preview panel.
Skin Name	Allows you to specify the skin name for the tree list panel in the Discussion View. The skin name is associated with a folder under the following directory in the web server: C:\Program Files\Common Files\Microsoft Shared\WebServerExtensions\14\TEMPLATE\LAYOUTS\QuestSoftware\DevExpress\9.3\Themes The skin folder will contain the CSS file and images needed to control the visual appearance of the grid. If none of the provided skins satisfy your need, you can copy one of the existing skins and modify it. You must follow the CSS class name convention in the CSS file, which is class name followed by the skin name; for example, dxtlControl_Office2003Blue.
Splitter Skin Name	Allows you to specify the skin name for the splitter in the Discussion View. The skin folder will contain the CSS file and images needed to control the visual appearance of the grid. If none of the provided skins satisfy your need, you can copy one of the existing skins and modify it. You must follow the CSS class name convention in the CSS file, which is class name followed by the skin name; for example, RadSplitter_Office.
Splitter Orientation	Allows you to divide the treeview and the Preview panel either horizontally or vertically using a splitter.
Tree View List Panel Size	Allows you to set the height (when the splitter orientation is Horizontal) or the width (when the splitter orientation is Vertical) of the treeview list panel in pixels.

Table 11. View

Preview Panel Size	Allows you to set the height (when the splitter orientation is Horizontal) or the width (when the splitter orientation is Vertical) of the Preview panel in pixels.
Grid Lines	Allows you to specify if the tree list can display no grid lines, horizontal grid line, vertical grid lines or both depending on the Grid Lines property.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 12. Toolbar

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show Filter Button at Top	Allows you to show the Filter/Search button as a top level button. If not selected, If set to false, the Filter/Search button is shown under the Actions button.
Show New Item Button	Allows you to display the New button.
Show Delete Button	Allows you to display the Delete button
Show Connect To Outlook Button	Allows you to display the Connect to Outlook button.
Show Alert Me Button	Allows you to show the Alert Me button in the toolbar.
Show Reply Button	Allows you to display the Reply button.
Show Expand All Button	Allows you to display the Expand All button.
Show Collapse All Button	Allows you to display the Collapse All button.

Context Menu

The Context Menu page contains the following:

Table 13. Context Menu

Element	Description
Enable Context Menu	Allows you to show the context menu.
Context Menu Skin Name	Allows you to set he skin name for the context menu.
Show View Properties	Allows you to show the View Properties menu item in the context menu.
Show Edit Properties	Allows you to show the Edit Properties menu item in the context menu.
Show Reply	Allows you to show the Reply menu item in the context menu.
Show Delete Item	Allows you to show the Delete Item menu item in the context menu.
Show Manage Permissions	Allows you to show the Manage Permissions menu item in the context menu.
Show Alert Me	Allows you to show the Alert Me menu item in the context menu.
View Properties Context Menu Text	Allows you to set the text for the View Properties context menu.
Edit Properties Context Menu Text	Allows you to set the text for the Edit Properties context menu.
Reply Context Menu Text	Allows you to set the text for the Reply context menu.
Delete Item Context Menu Text	Allows you to set the text for the Delete Item context menu.
Manage Permissions Context Menu Text	Allows you to set the text for the Manage Permissions context menu.
Alert Me Context Menu Text	Allows you to set the text for the Alert Me context menu.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 14. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 15. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 16. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 17. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
View Properties Context Menu Resource Text ID	Allows you to enter a text resource ID for the View Properties context menu.
Edit Properties Context Menu Resource ID	Allows you to enter a text resource ID for the Edit Properties context menu.

Table 17. Localization

Element	Description
Reply Context Menu Text Resource ID	Allows you to enter a text resource ID for the Reply context menu.
Delete Item Context Menu Resource ID	Allows you to enter a text resource ID for the Delete Item context menu.
Manage Permissions Context Menu Resource ID	Allows you to enter a text resource ID for the Manage Permissions context menu.
Alert Me Context Menu Resource ID	Allows you to enter a text resource ID for the Alert Me context menu.
Filter Button Text Resource ID	Allows you to enter a text resource ID for the Filter button.

qDiscussionView Procedures

You can perform the following procedures using qDiscussionView:

- Configuring qDiscussionView
- Sorting the qDiscussionView
- Configuring qDiscussionView with the Complex Category Index List

Configuring qDiscussionView

To configure qDiscussionView

1. Add qDiscussionView to your page.
2. Open **ezEdit**.

   The Primary Content page opens by default.
3. Configure each element as needed and click **OK**.
4. If needed, configure the elements in the other tabs.
5. When done configuring each tab, click **OK**.

Sorting the qDiscussionView

You can sort the entries in the qDiscussionView by clicking the column header. Clicking the column header again will alternate between ascending and descending order.

Due to the hierarchical nature of the discussions and their responses, the sorting will sort the node against another nodes in the same level. For example, if the following discussion structure exists:

* Discussion 1
  - Response 1.1
    - Response 1.1.1
    - Response 1.1.2
  - Response 1.2
    - Response 1.2.1

- Response 1.2.2

* Discussion 2

- Response 2.1

- Response 2.1.1

- Response 2.1.2

- Response 2.2

- Response 2.2.1

- Response 2.2.2

When you click the Subject column header:

- Discussion 1 is sorted against Discussion 2
- Response 1.1 is sorted against Response 1.2.
- Response 2.1 is sorted against Response 2.2.
- Response 1.1.1 is sorted against Response 1.1.2.
- Response 1.2.1 is sorted against Response 1.2.2.
- Response 2.1.1 is sorted against Response 2.1.2.
- Response 2.2.1 is sorted against Response 2.2.2.

To clear the sorting for a certain column

- Press Ctrl and click the column header.

To sort multiple columns

- Press Shift and click other column headers.

  The sort index depends on which column you click first. For example, if you click Created field and then click Shift + Subject field, the entries are sorted based on the Created field first and then Subject field, regardless the Subject field appeared first.

Understanding the Complex Category Index List

The Complex Category Index List allows qDiscussionView to function like the Lotus Notes response document which contains a category attribute. qDiscussionView maintains the index list when one or more discussions are deleted. You must mark the complex category field in your discussion list, so qDiscussionView will know that the complex category field exists and the index list is updated.

To mark the complex category field in your discussion list

1. From the menu, select ezEdit.
2. From the Display Fields section, select Edit.
3. Select Edit for each field name you want displayed.
4. Select the Is Complex Category check box, and click OK.

The Complex Category Index List can contain multiple categories such as: Category1, Category2, Category3. In this case, the discussion is displayed in each of the multiple categories in the treeview. For example, if Discussion A contained ‘Category1, Category2, Category3’ in the Complex Category Index List, it would be displayed in the treeview view as follows:

- Category1

  - Discussion A

- Category2

- Discussion A

- Category3

- Discussion A

The sorting is disabled when you use grouped complex category field.

The category field can contain nested categories, such as: Category1\Category2\Category3. In this case, the discussion is displayed in the nested categories in the treeview. For example, if Discussion A contained 'Category1\Category2\Category3' in the complex category field, it would be displayed in the treeview as follows:

- Category1

- Category2

- Category3

Discussion A

The category field can contain a mix of multiple and nested categories. For example, if Discussion A contained 'Category1, Category2, Category3, Level1\Level2\Level3' in the complex category field, it would be displayed in the listview as follows:

-- Category1

- Discussion

A - Category2

- Discussion

A - Category3

- Discussion A

- Level1 -

Level2 -

Level3

Discussion A

In order to support complex categories while maintaining good performance, the Complex Category must be indexed. Another SharePoint list is used to store the index. There are two ways to create the Complex Category Index list.

To create the Complex Category Index List

1. From qDiscussionView, select Create Complex Category Index List.
2. Accept the default site URL or enter another site URL.
3. Enter the list name.

   Once created, the index appears when you get lists from the Viewed List section of the web app.

For mass creation of the Complex Category Index list after discussion lists are migrated from Lotus Notes, use the Complex Category Indexer tool. After the migration job, there are many unindexed discussion lists. This tool creates the Complex Category Index list and populate it at the same time.

Configuring qDiscussionView with the Complex Category Index List

If you have a Discussion list that you want to appear in different categories, you would configure the Complex Category Index List. The Complex Category Index List allows qDiscussionView to function like the Lotus Notes response document which contains a category attribute.

qDiscussionView maintains the index list when one or more discussions are deleted. You must mark the complex category field in your discussion list, so qDiscussionView will know that the complex category field exists and the index list is updated.

To configure qDiscussionView with Complex Category Index List

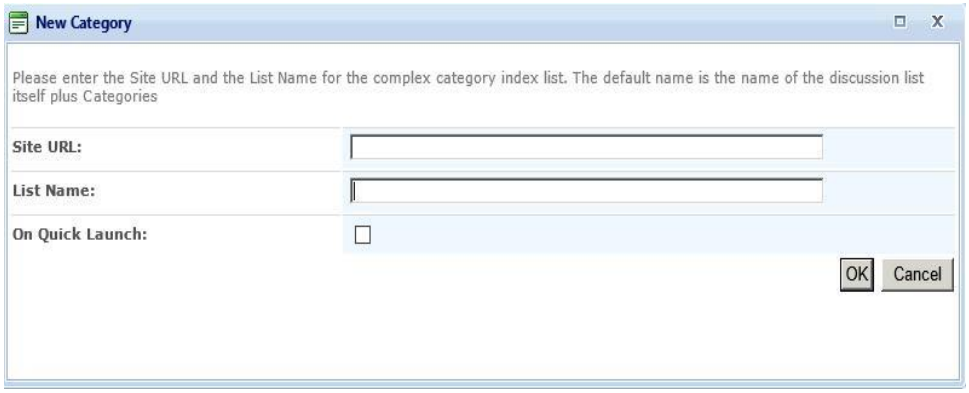
1 Create a discussion board list in SharePoint. For example, create a discussion board list called "Discussion".

2 Create a column for Discussion. Enter the name "Category" and select **Single Line of Text** or **Multiple Lines of Text** as the Type.

> **NOTE:** Refer to the SharePoint documentation on how to create a column and discussion board list.

3 Create a SharePoint page, add a qDiscussionView web app, and open **ezEdit**. In Viewed Lists, select **Discussion**.

4 From the qDiscussionView drop-down menu, select **Create Complex Category Index List**. The New Category dialog box opens.



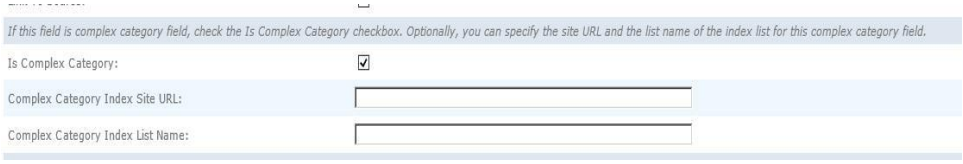
5 Enter a Complex Category Index Site URL and List Name.

The List Name defaults to discussion board list name plus Categories. For example, the default list name is Discussion Categories.

6 Open **ezEdit** of the qDiscussionView web app.

a From Display Fields, select **Edit** next to "Category" created in step 2.

b Select **Is Complex Category** check box.

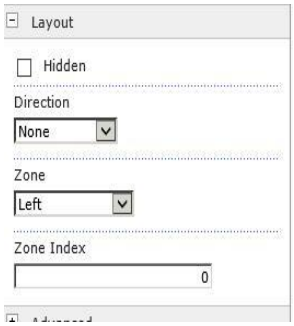


c Enter a Complex Category Index Site URL and Complex Category Index List Name. This name must the same as the list name entered in Step 5 (in our example, Discussion Categories).

7 Replace SharePoint's out-of-the-box web apps on the NewItem, EditItem, and ViewItem pages with qListForm web apps.

You must replace the out-of-the-box web app with the qListForm to use the Complex Category Discussion feature in qListForm.

a Hide out-of-the box web apps. From the web app drop-down, select **Edit Web app**. From the Layout section, select the **Hidden** check box.



b Add a qListForm web app. Open **ezEdit**.

c For Form Type, select NewListItem to replace Default New Form from the out-of-the-box web app.

d Create two more qListForm web apps. Open **ezEdit**. For Form Type, select:

- DisplayListItem to replace Default Display Form from the out-of-the-box web app
- EditListItem to replace Default Edit Form from the out-of-the-box web app

8 In each qListForm web app:

a Select **Edit** from Display Fields and select **Edit** next to Category (created in step 2).

b Select **Complex Category** as the Field Type. Enter a Complex Category Index Site URL and List Name. This name must the same as the list name entered in Step 5 (in our example, Discussion Categories).

You can now use qListForm to view, edit, and update complex categories and view discussion threads grouped by complex categories.

7

qDynamicLayout

- Overview
- qDynamicLayout Pages
- qDynamicLayout Procedures

Overview

The qDynamicLayout Web app allows you to create a customized layout by placing multiple Web apps and HTML elements on one page. This helps you manage page space more effectively.

qDynamicLayout Pages

You can configure this Web app through its tabs that are accessible through ezEdit. qDynamicLayout contains the following pages:

- Content Page
- Appearance Page
- Advanced Page

Content Page

When you open ezEdit in qDynamicLayout, the Primary Content page opens by default, and contains the following editable sections:

- Primary Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Layout	See Layout on page 120.
View Settings	See View Setting on page 120.

Layout

The Tab Layout allows you to pick where to add the tabs and what the tabs should be named.

The following are elements found in the Layout section.

Table 2. Layout

Element	Description
Advanced Mode	Allows you to edit Layout in XML format: <FormLayout Type="Tab" Orientation="HorizontalTop"> <Container ID="Test" Label="DiscussionView" Description="" /> </FormLayout>
ID	Allows you to give an ID to each tab The IDs can contain letters ([A-Z, a-z]), digits ([0-9]), hyphens ("-"), and underscores ("_") only.
Label	Allows you to name each tab
Description	Allows you to add a description to each tab, if necessary
Show User Groups	Allows you to list SharePoint groups whose members can view the web app. Separate groups with commas (for example, Administrators, Readers).
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the web app. Separate site group names with commas (for example, Administrators, Readers). If users are defined in Show User Groups and Hide User Groups, Hide Groups takes precedence.
Default	Allows you to define the default tab for qDynamicLayout. If this element is not specified, the first tab listed in the Layout becomes the default tab. If the tab for the specified element is hidden, then the first non-hidden tab becomes the default tab.

View Setting

The View Setting section allows you to select in what tabs the Web apps should appear and in which order.

The following are elements found in the View Settings section.

Table 3. View Setting

Element	Description
Advanced Mode	Turn on if you want to edit View Settings in XML format: <ViewSetting> <Content Type="WebPart" ContainerID="1"> <WebApp ID="g_59f7fda1_4405_45c8_bba0_f354db68bab8" Type="DiscussionView" ClientId="MSOZoneCell_WebPartWPQ18" /> </Content> </ViewSetting>
Web app Title	Indicates the name the Web app to be added
Web app Type	Indicates the type of Web app to be added
Container	If you have more than one qDynamicLayout Web app, the Container indicates if a Web App is already part of another qDynamicLayout Web app and the name of that qDynamicLayout Web app. You cannot configure these Web apps from another qDynamicLayout Web app. You can configure only those Web apps that are contained in the qDynamicLayout you are editing.
Tab ID	Allows you to select the tab where to add the Web app. The Tab ID appears when you configure the IDs in the Layout section

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Skin
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 4. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Skin

The Skin page allows you to configure the appearance of the web app.

Table 5. Skin

Element	Description
Skin Name	Allows you to select the skin name for the Web app. If you have a custom skin, you can add it to the following folder: • for SharePoint 2010: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins • for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 6. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 7. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 8. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

qDynamicLayout Procedures

You can perform the following procedures using qDynamicLayout:

- Configuring qDynamicLayout

Configuring qDynamicLayout

If a Web app is hidden or closed, you cannot add it to qDynamicLayout.

If you delete qDynamicLayout, only the qDynamicLayout container is deleted, the Web apps contained within it are not.

You cannot configure the View Settings section until you have added a Web app to a tab in qDynamicLayout.

To configure qDynamicLayout

1. Add the qDynamicLayout Web app to your page.
2. Open **ezEdit**.

   The Primary Content page opens by default.
3. Configure each element as needed and click **OK**.
4. If needed, configure the elements in the other tabs.
5. When done configuring each tab, click **OK**.

You do not have to add a Web app to a tab right away. You can add one later or add more Web apps to the same tab.

To add a Web app later or add more Web apps to the same tab

1. From Site Actions, select **Edit Page**.
2. Select **Add a Web app**.
3. Select a Web app and click **Add**.
4. From qDynamicLayout Web app, select **ezEdit**.
5. From View Settings section, select **Edit**.
6. Select the Web app you just added.
7. Select the Tab ID for the Web app.
8. Click **OK**.

To configure a Web app within a qDynamicLayout Web app

1. From Site Actions, select **Edit Page**.
2. From qDynamicLayout Web app, select a tab.
3. From the tab, select **ezEdit**.
4. Configure and save the Web app.

8

qExcelViewer

- Overview
- qExcelViewer Pages
- qExcelViewer Procedures

Overview

qExcelViewer lets you view data in Microsoft Excel. The Excel viewer works in conjunction with the qListView.

qExcelViewer Pages

You can configure this web app through its tabs that are accessible through ezEdit. qExcelViewer contains the following tabs:

- Content Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Session Name	Allows you to enter the name of the Session variable where the Excel Viewer expects to find all the information that has been set by a qListView. This name must match the Search Session Name in qListView.
Show Header	Allows you to show the column name in the first row.
Display Fields	See Display Fields on page 125.

Display Fields

This property defines the fields that should be displayed in the Excel spreadsheet.

This property is optional if the properties in the Custom Display section are specified. In that case, the default display for the search results is turned off and the custom display is used. You can also combine a custom display with the Display Fields; for example, if you want to display the data in the grid and to provide the summary of the data or disclaimer using the custom display.

The Display Fields section contains the following:

Table 2. Display Fields

Element	Description
Advanced Mode	Turn on if you want to edit Display Fields in XML format: <Fields LookupThresholdControlSetting=”On”> <Field Name="fieldName" [optional attributes]/> <Field Name="fieldName" [optional attributes]/> </Fields>
Query All Fields	Controls how Web apps behave in relation to the Excel View Lookup Threshold in SharePoint Resource Throttling. The options are: • Default — uses the level set in the Configuration Editor. If you have selected Query All Fields check box in the Configuration Editor, the Web app will query only those fields that are not included in the Excel View Lookup Threshold. If the Query All Fields check box is cleared, the Web app will query all fields. • On — If the Web app level is On, the Web app queries all fields in lists, except Lookup fields. • Off — If the Web app level is Off, the Web app queries all fields in lists, including Lookup fields. • Explicit — If the Web app level is Explicit, the Web app queries only those fields selected in the Display Fields. This option renders the best performance for your Web app.
Title	Allows you to set the title for the field header. This is useful if the real field name is too long and you want to abbreviate the title in the field header, or if you simply want to display a different title in the field header. If this attribute is not specified, the value specified in the Name attribute is used in the field header.
Align	Allows you to set the alignment for the field.
Display Field Name	Allows you to specify the name of a field in the cross-site list. You only specify this if the field that you are trying to display is a cross-site lookup field. If you want to display multiple fields from the cross-site lookup field, use the Display Format.
Display Format	Allows you to set the format of the value that is displayed in a cross-site lookup field. You use this attribute if you want to display values from multiple fields. **NOTE:** You can use the field replacement expression <%Field%> to refer to a field. If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively, unless you use the Excel Viewer Editor which will encode it automatically for you. For more information, see Display Format on page 14.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Layout

- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 3. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 4. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 5. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.

Table 5. Other

Element	Description
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 6. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 7. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

qExcelViewer Procedures

You can perform the following procedures using qExcelViewer:

- Configuring qExcelViewer

Configuring qExcelViewer

To configure qExcelViewer

1. Create a new blank page and give it an *.aspx* extension. This name must appear in the Excel Viewer URL property of qListView.
2. Add qExcelViewer to your page.
3. Open **ezEdit**.

   The Primary Content page opens by default.
4. Enter a session name. This session must be the same as the Search Session Name created in qListView.
5. Select some display fields.
6. When done configuring each tab, click **OK**.

> **NOTE:** If you are using Excel 2010, if you have more than 8 outline levels, some rows will be hidden. To show all data, select all rows and right-click the rows. Select Unhide.

9

qHelpLink

- Overview
- qHelpLink Pages

Overview

qHelpLink provides a context-sensitive help functionality. The help link enables each page to be connected to a different help file or to no help file (in which case the help link will not be visible). This capability lets the site administrator or author issue the help files in stages.

The help link information is stored in a SharePoint list. The SharePoint list for the help link should contain:

- Context ID – This field is mandatory. This is a single line of text that contains the identifier for the help URL.
- Help Url – This field is mandatory. This is a single line of text that contains the URL for the help file.
- Culture – This field is optional. You must have this field if you want to have a different Help URL for different culture. You can define different Help URLs with the same Caption ID but different Help URL. You must leave the value for the default culture blank. For example:

Table 1. Culture

Context ID	Culture	Help Url
sites.mysite.default.aspx		defaultHelp.aspx
sites.mysite.default.aspx	id-ID	defaultHelp.id-ID.aspx

If your list uses different names for the fields, you must define the name in the Context ID Field Name, Help Url Field Name, and Culture Field Name properties.

The Help URL field may contain an absolute or a relative URL.

You can create the source list easily by using the “AgreeYa Help List” under Custom Lists in SharePoint. This will automatically create a list that contains all of the above fields.

qHelpLink Pages

You can configure this web app through its tabs that are accessible through ezEdit. qHelpLink contains the following tabs:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Custom Display

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 2. Primary Content

Element	Description
Site Url	Allows you to set the URL to the site that contains the list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	Allows you to set the name of the list. The name is case sensitive. If the name of the list contains spaces, include the spaces in the List Name.
Context ID	Allows you to set the identifier to locate the help URL in the list. **NOTE:** Define a convention for the Context ID value that will make it easy for you to identify where the help URL is used. For example, use the page URL, remove the host name from the URL, and replace all / (slash) with . (dot). Therefore, if the page URL is http://hostname/sites/mysite/default.aspx, the Context ID is sites.mysite.default.aspx
Context ID Field Name	Allows you to set the name of the field containing the context ID. The default value is User Context ID.
Help Url Field Name	Allows you to set the name of the field containing the message. The default value is Help URL.
Culture Field Name	Allows you to set the name of the field containing the Culture. The default value is User Culture.
Help Text	Allows you to set the text for the help link. The default value is Help. You can replace this value with HTML such as <img border="0" title="Help" src="imageURL"> to display an image instead of text.

Custom Display

The Custom Display page contains the following:

Table 3. Custom Display

Element	Description
CSS Style	Allows you to set the CSS style for the help link. The default value is empty. You can define this as you would define the styles in a CSS class.
CSS Class	Allows you to set the CSS class name for the help link. The class name must be defined in an external CSS file. If defined, this priority takes precedence over the CSS Style class.

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Navigation

Navigation

The Navigation page allows you to configure how and where the user will navigate in the web app. It contains the following elements:

Table 4. Navigation

Element	Description
Target	Allows you to define how the help file should be displayed. The default value is _blank, which means the help file opens in a new window. Another alternative is the name of a frame or another window.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 5. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 6. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 7. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 8. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 9. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

10

qItemDisplay

- Overview
- qItemDisplay Pages

Overview

qItemDisplay displays the item that was put into a session variable by another web app, such as qListView or qListForm. If you want to select something from a large list, you can use a combination of qItemDisplay and qListView. qListView is used to select the item and qItemDisplay is used to display the item after it is selected. Because qItemDisplay is a row provider, you can use this web app to pass the selected item to qListForm to be consumed or to a qListView to filter the data.

qItemDisplay supports multiple languages, and Dynamic language switching and Flash and JavaScript (HTML5). You can define different a Title for different languages using the Resource List and the Title Resource ID properties.

qItemDisplay Pages

You can configure this web app through its tabs that are accessible through ezEdit. qHelpLink contains the following tabs:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Custom Display

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to add a title to the web app.
Session Name	Allows you to set the name of the session variable where qItemDisplay retrieves the selected item information. This name must be set to the same value as the name specified in the: • Set Session Name attribute in the Viewed Lists property of the qListView if you use the listview to select the item. • Set Session Name property of the qListForm if you use the List Form to put the item into the session
Site URL	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	Allows you to set the name of the SharePoint list. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list, you can use a single dot (.) as the list name.
Display Field Name	Allows you to set the name of the field that you want to display in the selector. The field name is case sensitive. If you want to display information from multiple fields, use the Display Format properties. The Display Field Name property is ignored if the Display Format property is defined.
Display Format	Allows you to configure the format of the items that are displayed. This property can contain a plain text value or a piece of HTML. You can use a field replacement expression (<%field name %>) to refer to a field name. For example, you can display Employee ID and Employee Name as follows: Employee ID: <%Employee ID %> Employee Name: <%Employee Name%> The item is displayed as: Employee ID: 1001 Employee Name: John Smith For more information, see Display Format on page 14.
No Selected Item Message	Allows you to set the message that is displayed if the qItemDisplay does not find the selected item information in the session variable. The default value is No Item Selected.

Custom Display

The Custom Display page contains the following:

Table 2. Custom Display

Element	Description
Style	Allows you to set the CSS style for the help link. The default value is empty. You can define this as you would define the styles in a CSS class.
CSS Class	Allows you to set the CSS class name for the help link. The class name must be defined in an external CSS file. If defined, this priority takes precedence over the CSS Style class.

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Navigation

Navigation

The Navigation page allows you to configure how and where the user will navigate in the web app. It contains the following elements:

Table 3. Navigation

Element	Description
No Selected Item Redirect URL	If specified, the user will be redirected to this URL if the qItemDisplay does not find the selected item information in the Session. The page specified by this URL usually contains the Web app to select the item.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Toolbar
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 4. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 5. Toolbar

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Change Value Button Text	Allows you to change the selected item that is displayed in qItemDisplay. Because qItemDisplay is read-only, the user must go to another page to change the value. That other page usually contains another web app, such as qListView. The Selected Item Display provides a button in the toolbar to redirect the user to the Change Value page. This property defines the text for that button. The default value is Change Value. You may want to change this value to something else, for example, Change Selected Project, or Change Selected Customer.
Change Value Button Icon URL	Allows you to define the URL for the icon for the Change Value button. This property is optional if you do not want to have an icon on the button.
Change Value Button URL	Allows you to define the URL for the change value page. If this property is not defined, the Change Value button will not be displayed. **NOTE:** NOTE: This value is usually the same as the value in the No Selected Item Redirect URL.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 6. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 7. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app

Table 7. Other

Element	Description
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 8. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 9. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

11

qListForm

- Overview
- qListForm Pages
- qListForm Procedures

Overview

The qListForm replaces the Microsoft List Form web app. qListForm provides many features to create relationships among lists. The only native SharePoint capability that creates relationships between two lists is the lookup field. However, the lookup field can only see one field from a list that resides in the same workspace. This limits your ability to create a sophisticated application across several workspaces.

With qListForm, you have the ability to:

- support different content type in the list
- support dynamic language switching and Flash and JavaScript (HTML5)
- place the List Form in any page, including list-supporting forms, such as DispForm.aspx, EditForm.aspx, NewForm.aspx, and Upload.aspx.
- create, update, or display an item from lists in another site. The target list is defined using Site URL and List Name properties.
- define a custom toolbar button. You can associate the custom toolbar button with one or more actions. The list form has some pre-defined actions, such as Save, Delete, Copy or Move. You can also write your own custom action and hook it up with the list form.
- use various form types: DisplayListItem, NewListItem, EditListItem, DisplayDocument, UploadDocument, CreateDocument and EditDocument. This is defined in the Form Type property.
- filter a lookup/cross-site lookup field with another lookup/cross-site lookup field using the master-detail capability
- insert an image, upload documents, and do a spell-check using the Rich Text Editor.
- customize the Rich Text Editor's toolbar using Rich Text Editor Toolbar Settings.
- create collapsible sections in the Rich Text Editor. For more information, see Creating and Editing Collapsible Sections on page 183.
- show or hide user fields based on the SharePoint group membership of the user.
- define whether to hide, show, enable, or disable a field, a group of fields or a tab in the list form based on the condition of the fields.
- create a new document and define the metadata for the new document, and enter the metadata for multiple file uploads.
- redirect users after saving information: GoToNextPageUrl, GoToSource and TrySourceThenNextPageUrl.
- define a different URL for the Save and Close button, Cancel button and the Edit Item button.
- create a new record or update records in dependent lists.
- ensure the referential integrity of the records in the dependent lists by preventing the deletion of the parent record.

- manage attachments in the List Form if the target list is attachment-enabled.
- insert an image as an attachment to the list item using the Image Manager toolbar button.
- define a mask for the input. Enforcing the format increases the consistency and data correctness.
- create a description for each field in plain text or HTML.
- define a new title for the field.
- assign a fixed value to a field, and assign a formatted value to a field based on values in other fields.
- fill the value of a field from a value stored in the Session variable.
- create a cross-site lookup field. A cross-site lookup field is similar to the SharePoint lookup field, except it can look up multiple lists in any workspaces that are accessible from the current site by the current user.
- sort entries in the cross-site lookup field.
- auto-fill a field based on value of a field that belongs to a parent field. The parent field can be a lookup field or a cross-site lookup field. This feature ensures data consistency and correctness when the value from the parent field is replicated in the target field.
- hide a field. A hidden field is processed during postback, but it will not be displayed.
- create a read only field.
- store the displayed, new, or updated items into the Session. This feature enables a List Form to communicate with another web app, such as qSelector in another page.
- display the options for multi-choice fields in multiple columns.
- send an email while editing or creating an item using the List Form Emailer.
- The List Form Emailer requires you to put the MailSettings configuration in the web.config file. You have to do this because the List Form Emailer does not use the SharePoint email capability due to its limitation of sending a maximum of 1000 characters.

  NOTE: The List Form Emailer requires you to put the MailSettings configuration in the web.config file. You have to do this because the List Form Emailer does not use the SharePoint email capability due to its limitation of sending a maximum of 1000 characters. The MailSettings configuration looks like the following (you only have to add the lines with bold font):

```
<configuration>
  <configSections>
    <sectionGroup name="QuestSoftware">
      <section name="MailSettings" type="System.Configuration.SingleTagSectionHandler,
System, Version=1.0.5000.0, Culture=neutral, PublicKeyToken=b77a5c561934e089" />
    </sectionGroup>
  </configSections>
  <QuestSoftware>
    <MailSettings OutboundSmtpServer="Smtp server name or IP
  address"/> </QuestSoftware>
</configuration>
```

  - use IRowConsumer and IWebPartRow interfaces to auto-fill a certain field based on field in a consumed row.

NOTE: The IRowConsumer interface is obsolete. It is provided here only for backward compatibility reason. When you establish the web app connection, this interface is labeled Consume Row From (Obsolete) in the web app Connections menu. Use the IWebPartRow consumer implementation that is labeled with Get Row From.

The IWebPartRow consumer implementation is labeled with Get Row From in the web app Connection menu. This interface cannot be connected with the obsolete IRowProvider implementation. Do not connect this new interface with the old interface that is marked obsolete.

- use IRowProvider and IWebPartRow interfaces to provide a row to another web app, such as qListForm or qSelector.

NOTE: The IWebPartRow implementation is labeled with Send Row To in the web app Connection menu. This interface cannot be connected with the obsolete IRowConsumer or IFilterConsumer implementation. Do not connect this new interface with the old interface that is marked obsolete.

The IRowProvider interface is obsolete. It is provided here only for backward compatibility reason. When you establish the web app connection, this interface is labeled Consume Row From (Obsolete) in the web app Connections menu. Use the IWebPartRow consumer implementation that is labeled with Send Row To.

User Permissions

In order for qListForm to work, the user must have a minimum set of permissions in their permission level.

Table 1. User Permissions

Form Type	Minimum set of permissions
NewListItem	Item, Edit Items, View Items, View Pages, Browse User Information, Open
UploadDocument	Add Item, Edit Items, View Items, View Application Pages, View Pages, Browse User Information, Open
EditListItem	Items, View Items, View Pages, Browse User Information, Open
EditDocument	Items, View Items, View Application Pages, View Pages, Browse User Information, Open
DisplayListItem	View Items, View Pages, Open
DisplayDocument	View Items, View Application Pages, View Pages, Open
CreateDocument	Add Item, Edit Items, View Items, View Application Pages, View Pages, Browse User Information, Open

If you do not meet the above minimum requirements, you will see "Access is denied" message either when the list form is loaded or when it is saved.

qListForm Pages

You can configure this web app through its pages that are accessible through ezEdit. qListForm contains the following pages:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- System Integration
- Optional Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 2. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Site Url	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path. If you want to connect the List Form with another web app in Microsoft SharePoint Designer, the Site URL property must contain an absolute URL.
List Name	Allows you to enter the name of the SharePoint list or document library that is edited or displayed by this List Form. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list that contains the form, you can use a single dot (.) as the list name. **NOTE:** This only works if the qListForm is contained in the NewForm.aspx, EditForm.aspx, DispForm.aspx or Upload.aspx. For example, if you are replacing the Microsoft List Form in the NewForm.aspx of the Tasks list and you use a single dot as the List Name, the List Name property of the qListForm is set to Tasks. If you want to save the list as a template and then add it somewhere else, the name of the new list might not be Tasks and using this relative list name will automatically pick up the new list name for the form

Table 2. Primary Content

Element	Description
Form Type	Allows you to choose one of the following: • DisplayListItem — The form is used to display a list item (all fields are read-only). • NewListItem — The form is used to create a new item in the list. • EditListItem — The form is used to edit a list item. • DisplayDocument — The form is used to display a document metadata. • UploadDocument — The form is used to upload a document into a document library. • EditDocument — The form is used to modify a document metadata. • CreateDocument — The form is used to create a new document in the document library in a similar manner as the NewListItem except it will display the "File Name" field as the first field in the form. When you click the Save and Close button, a document is created and the metadata specified in the form is applied to the new document. After the document is created, the qListForm will append EditDoc=1 HTTP parameter to the URL where the user is redirected to. If the redirected page contains a qListForm, it will open up the newly created document. The target folder of the new document is specified by the RootFolder HTTP parameter in the URL. If the RootFolder is not specified, the document is created in the root folder of the document library. The qListForm determines which template is used to create the new document using one of the following methods: By using the document template specified in the content type. The content type is specified by the ContentTypeId HTTP parameter in the URL. If the ContentTypeId is not specified, the default content type is used by the list form. The user can select a document template from a document library. The 2 properties of the list form, Template List Site URL and Template List Name, specify the Site URL and List Name of the doc library that contains the document template. When both are specified, the qListForm will display a drop-down menu above the Field Name field that contains list of documents in that doc library. The user can then select a document that will serve as a template for the new document. When this property is set to DisplayListItem, EditListItem, DisplayDocument, or EditDocument, the URL of the current page must contain an ID HTTP parameter to indicate the identifier of the item to be displayed or edited. The ID HTTP parameters are usually included by the List Form when you click New Item in its toolbar or View Properties or Edit Properties in its context menu.
Form Layout	For more information, see Form Layout on page 144.
Display Fields	For more information, see Display Fields on page 152.
ID HTTP Parameter Name	Allows the qListForm and several other web apps to an HTTP Parameter called ID to identify the item to be displayed or edited. This HTTP Parameter is usually generated automatically by the viewer web app, such as qListForm or qCalendarView, when you select an item to be displayed or edited. **NOTE:** If qListForm is placed on a web app page that is contained within a document library, the page will generate an error if the value of the ID HTTP Parameter is bigger than the number of pages within the document library. To prevent this error from happening, rename the ID HTTP Parameter. By default, the value of this property is "ID". You can change the value of this property to something else, such as LID. In that case, when you select "View Properties" or "Edit Properties" in the context menu, the URL of the display or edit form becomes: http://mysite.com/EditFormURL.aspx?LID=xxx Set the same property in the qListForm to the same value.

Form Layout

This property enables you to define the layout of the fields in the List Form. If this property is not defined, the List Form will display the fields in two column format: the first column is the field title and the second column is the control for the field.

This property is related to the Display Fields property. The Form Layout property defines the layout type and the containers. In order to place a certain field in a specific container, you will use the Tab/Container ID attribute of the Field element in the Display Fields property.

The Form Layout element can contain zero or more Container elements. You may not have to define any container for a certain type of layout manager. Some custom layout manager may have a fixed set of containers that do not need to be defined.

The Form Layout section contains the following:

Table 3. Form Layout

Form Layout type	Description
Advanced Mode	Turn on if you want to edit Form Layout in XML format: <FormLayout Type="TabLayout"> <Container Type="containerType" ID="containerID1" Label="tabText1" ShowUserGroups="group1,group2" HideUserGroups="group3,group4"> <Container Type="containerType" ID="containerID2" Label="tabText2" ShowUserGroups="group3,group4" HideUserGroups="group1,group2"> </FormLayout>
Tab Layout	Groups the fields in multiple tabs. You can add tabs to this layout by setting values for the following: • ID — the identifier for the tab. This ID must be unique for each container that is defined in the Form Layout. This identifier is referred to in the ContainerID attribute of the Field element in the Display Fields Property. • Label — the label for the container. Otherwise, if the container needs a label, it will use the ID. • ShowUserGroups — the container is shown if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. • HideUserGroups — the container is hidden if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. The HideUserGroups attribute will take precedence if the current user is a member of one of the groups specified in the HideUserGroups and ShowUserGroups.
Custom Layout	Uses the custom layout manager class specified in the LayoutManagerClassName attribute to layout the fields. Using the custom layout, you can write your own custom Layout Manager where you can layout the fields in any way you want it or even create your own custom controls in the form. For more detail on how to write your own custom Layout Manager class, see System Integration on page 161. You can add containers to this layout by setting values for the following: • ID — the identifier for the tab. This ID must be unique for each container that is defined in the Form Layout. This identifier is referred to in the ContainerID attribute of the Field element in the Display Fields Property. • Type — they type of container. • Label — the label for the container. Otherwise, if the container needs a label, it will use the ID. • ShowUserGroups — the container is shown if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. • HideUserGroups — the container is hidden if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. The HideUserGroups attribute will take precedence if the current user is a member of one of the groups specified in the HideUserGroups and ShowUserGroups.

Table 3. Form Layout

Form Layout type	Description
MultiColumn Layout	Displays the data in multiple columns. You can select the number of columns, and select if you want to render and control in a single row (displays the Label/Input control on the same row. If not selected, the Label/Input control is on separate row. Being on the separate row gives more screen real estate to render multiple columns. If this is selected, column span and row span attributes are applied to grouped field.)
Tab and MultiColumn Layout	Groups the fields in multiple tabs and in multiple columns in each tab. You can add tabs to this layout by setting values for the following: • ID — the identifier for the tab. This ID must be unique for each container that is defined in the Form Layout. This identifier is referred to in the ContainerID attribute of the Field element in the Display Fields Property. • Label — the label for the tab. Otherwise, if the container needs a label, it will use the ID. • ShowUserGroups — the tab is shown if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. • HideUserGroups — the tab is hidden if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. The HideUserGroups attribute will take precedence if the current user is a member of one of the groups specified in the HideUserGroups and ShowUserGroups. • Render and Control in a single row — the tab displays the Label/Input control on the same row. If not selected, the Label/Input control is on separate row. Being on the separate row gives more screen real estate to render multiple columns. If this is selected, column span and row span attributes are applied to grouped field.

Custom Layout

The Custom Layout capability enables you to write your own Layout Manager for the qListForm or qSIListForm.

This document explains the programming interface for writing the custom Layout Manager and how to deploy your custom Layout Manager into the server.

Layout Manager

A Layout Manager is a part of the list form that determines the layout of the controls on the form. The type of the layout for your form is specified in the Form Layout property. Out of the box, the list form provides two layout managers:

Table 4. Layout Manager

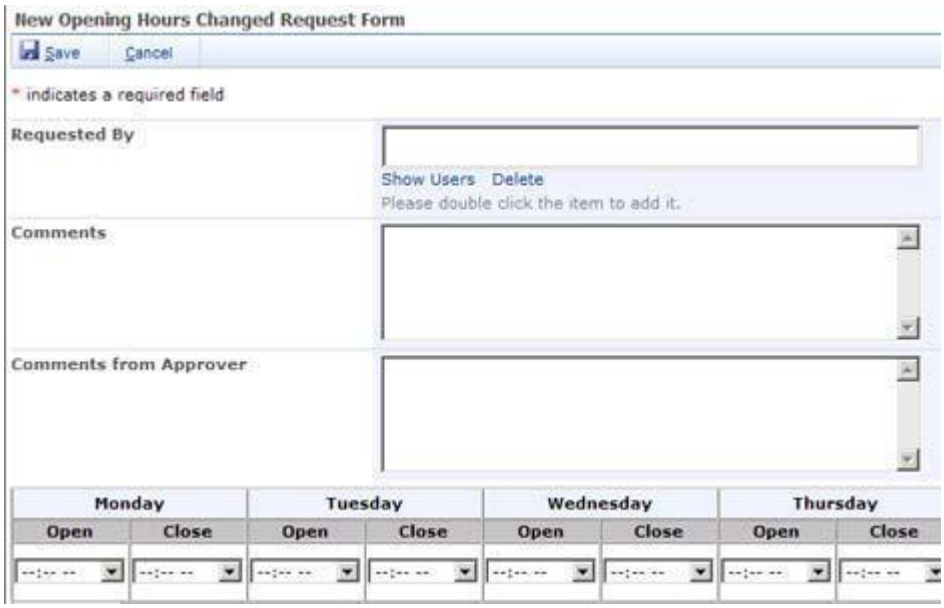
Layout manager	Description
Default Layout Manger	Is used if the Form Layout property of the list form is blank. The default layout manager lays out the controls vertically in two columns: the first column is the field title and the second column is the control for the field.
Tab Layout Manager	Enables you to group your fields into multiple tabs. You can use the Tab layout manager by specifying TabLayout in the Type attribute of the FormLayout element in the Form Layout property.

You can create your own Layout Manager:

- When you want to layout the controls in a way that is not provided by the out of the box layout managers. For example, grouping the controls in different sections and having multiple sections in the same row.

- When you want to create a custom control for one or more fields in the form. For example, in Figure 1, the table at the bottom of the form is a custom control created by the custom layout manager. This table contains the list of opening hours for a restaurant for every day during the week.

Figure 1. Creating a custom control



You can create your own custom Layout Manager class or use the sample custom Layout Manager class that is shipped with QuickApps for SharePoint.

To open the sample code

1 Select **Start | All Programs | AgreeYa | QuickApps for SharePoint | Sample Code.** The Sample Code folder opens in Windows Explorer.

2 Double-click **SampleCode.sln**.

This opens the solution in Microsoft Visual Studio. The sample custom Layout Manager class can be found in SampleLayoutManager.cs file in the SampleCustomActionsAndCustomLayouts project.

Custom Layout Manager Class

If you want to write your own custom Layout Manager class, ensure the following:

- A Class Library project is created using Microsoft Visual Studio
- Microsoft SharePoint Server is installed and running properly
- QuickApps for SharePoint is installed and running properly in your SharePoint environment
- You have a strong name key file to sign your assembly

Programming Interface

Your custom Layout Manager classes must be derived from WA.Core.LayoutManager.FormLayoutManager class. This class is located in WA.Core.DLL that is installed in the Global Assembly Cache (GAC) when you install the QuickApps for SharePoint.

Properties

The following are the properties of the WA.Core.LayoutManager.FormLayoutManager class:

Table 5. WA.Core.LayoutManager.FormLayoutManger class properties

Property	Description
FormType	indicates the type of list form that contains the layout manager class. The type of this property is FormTypeEnum enumeration and the options are New, Edit or Display. This property is useful when you create custom controls in your layout manager. For example, when the FormType is Display, you may want to make your custom control read only.
WebPart	references the parent web app, which is either a qListForm or a qSIListForm.
FormItem	references the item that is being created, edited, or displayed in the form. The type of this property is System.Object. The real type of the FormItem depends on whether the Layout Manager is used in the qListForm or qSIListForm. The qListForm will assign a Microsoft.SharePoint.SPListItem object to the FormItem property. The qSIListForm will assign a System.Collections.Hashtable object to the FormItem property. The Hashtable contains a key value pair of field name and field value. You can use the FormItem to get the values of the fields to populate your custom controls and to save the value from your custom controls back to the form.
FormLayout	indicates an XML string that is entered in the Form Layout property of the qListForm or qSIListForm. You can use this information to find out about the containers that are specified for your layout manager.
ClientSide ValidationError Handler	indicates a read only property to get the name of the Javascript function that is called in the validation error in the client side, such as a required field that is empty, number field outside a specific range. You do this only if you need special handling such as showing the control with the validation error. For example, the Tab layout manager groups fields in different tabs. The field with the validation error maybe located in the tab that is not currently shown. In that case, the Tab layout manager needs to show the tab that contains the field with the validation error. **NOTE:** Your layout manager class can override this property.

Methods

The following are the methods of the WA.Core.LayoutManager.FormLayoutManager class.

Table 6. WA.Core.LayoutManager.FormLayoutManager class methods

Method	Description
public abstract void AddControlToContainer(System. Web.UI.Control control, string containerID, string fieldDisplayName, string fieldInternalName, Guid fieldID, string fieldDescription, bool isFieldRequired, bool isControlHidden)	Is called by the list form during initialization phase (in the OnInit method). The list form will create controls for the fields specified in the Display Fields property and then call this method to add the control to the layout manager. Your layout manager class must override this method. The following are the parameters for this method: • control – the control to be added • containerID – the ID of the container where this control should be added. The containerID for the field is specified in the Display Fields property of the list form. If not specified, the containerID is NULL. • fieldDisplayName – the display name of the field that owns this control. For qListForm, this means the display name for the SharePoint field, which is usually different than the internal name of the field. • fieldInternalName – the internal name of the field that owns this control. For qListForm, this means the internal name for the SharePoint field, which is usually different than the display name of the field. For example, the internal name of the "Assigned To" field may be "Assigned _x0020_To". For qSIListForm, the fieldDisplayName and the fieldInternalName are the same. • fieldID – the unique identifier for the field. This is a good candidate to use as a unique key to keep track of your fields. For example, when the list form needs to hide the controls for certain fields by using the HideControl method, it will use the fieldID as parameter. • fieldDescription – the description for the field. This is the field description that is specified by the user in the Display Fields property of the list form. It's up to you on how you want to display it in your layout manager. One option is to display the description underneath the control. If not specified, the fieldDescription is NULL. • isFieldRequired – a boolean flag to indicate whether or not this is required field. You may want to put some visual indicator for required fields such as a '*' in the field title. • isControlHidden – a boolean field to indicate whether or not the control for the field should be hidden. The user can mark a certain field as a hidden field in the Display Fields property. If a field is hidden, you still have to add the control into the control hierarchy but you need to hide it in a certain way. For example, you can set the style's Display attribute to None.
public abstract void AddMessageToContainer(string message, string containerID)	Is called if the list form needs to display a certain message on the form. For example, if the Email Notification Section in the qListForm is enabled, the qListForm will call this method to generate this message: "If you want to send an email notification, please complete the following information." The email is sent if you enter one or more email addresses in the To field. You need to display the message in the layout manager when this method is called.
public abstract void HideControl(Guid fieldID)	Is called if the list form needs to hide a certain control. For example, when the qListForm is editing a Calendar item, the Start Time and End Time fields needs to be hidden when the user checks the All Day Event and Recurrence fields. You must implement this method for your layout manager to support the Form Component Behavior property of the list form.

Table 6. WA.Core.LayoutManager.FormLayoutManager class methods

Method	Description
public abstract void ShowControl(Guid fieldID)	Is called if the list form needs to show a certain control. For example, when the qListForm is editing a Calendar item, the Start Time and End Time fields needs to be shown when the user unchecks either the All Day Event or Recurrence fields. You must implement this method for your layout manager to support the Form Component Behavior property of the list form.
public virtual void EnableControl(Guid fieldID)	Is called if the list form needs to enable a certain control. You must implement this method for your layout manager to support the Form Component Behavior property of the list form.
public virtual void DisableControl(Guid fieldID)	Is called if the list form needs to disable a certain control. You must implement this method for your layout manager to support the Form Component Behavior property of the list form.
public virtual void ShowContainer(Guid fieldID)	Is called if the list form needs to show a certain container in your layout manager. You must implement this method for your layout manager to fully support the Form Component Behavior property of the list form.
public virtual void HideContainer(Guid fieldID)	You layout manager class may override this method. The list form will call this method if it needs to hide a certain container in your layout manager. You must implement this method for your layout manager to fully support the Form Component Behavior property of the list form.
public virtual void EnableContainer(Guid fieldID)	Is called if the list form needs to enable a certain container in your layout manager. You must implement this method for your layout manager to fully support the Form Component Behavior property of the list form.
public virtual void DisableContainer(Guid fieldID)	Is called if the list form needs to disable a certain container in your layout manager. You must implement this method for your layout manager to fully support the Form Component Behavior property of the list form.
public virtual void PopulateFormControls()	Overridden if this method creates custom controls for certain fields. You must create the custom controls already in the OnInit method. The list form will call this method during pre-render phase and you can use the FormItem property to get the values for the fields and populate your custom controls. You do not have to populate the controls that are created by the list form and added by the AddControlToContainer method. Those controls is populated by the list form.
public virtual void SaveValuesToFormItem()	Overridden if this method creates custom controls for certain fields. The list form will call this method after the user clicks the save button in the form. You must write back the value from your custom controls to the FormItem so that the list form can save the value back to SharePoint or your external system.

Debugging

In order to debug the code, generate the debug version of the DLL and copy the DLL and PDB file into the bin folder under the root folder of your SharePoint application. If you cannot find the bin folder, you can create one. Sign your assembly with a strong name key file.

NOTE: You can set the output folder of your project to the bin folder of your SharePoint application. Therefore, the DLL and PDB files are automatically updated every time you compile your application.

Physical Path

To find the physical path of the root folder of your SharePoint application

1. Select **Start | Control Panel | Administrative Tools | Internet Information Services (IIS) Manager**.
2. Expand the node with your computer name.
3. Expand the **Web Sites** folder.

4 Find the node that represents your site. The SharePoint site should contain _layouts, _vti_bin and _wpresources underneath it.

5 Right-click the node and select **Properties**.

6 Select **Home Directory** tab.

The value in the Local path tells you the physical path of your root folder.

Trust Level

Once you generate the debug version, you should change the trust level for your web application to Full while debugging the custom Layout Manager class. The trust level is specified in the web.config. Find the trust element in your web.config and change the level to Full.

```
<trust level="Full" originUrl="" />
```

Using the Custom Layout Manager Class

In order to use your custom Layout Manager class, you should refer to it in the Form Layout property of the qListForm or qSIListForm as follows:

```
<FormLayout Type="CustomLayout" LayoutManagerClassName="Fully qualified class
name of the custom Layout Manager" />
```

NOTE: When you specify the class name in the LayoutManagerClassName attribute in the FormLayout element, you must use a fully qualified class name.

For example, in order to use the SampleLayoutManager class that comes in the sample code, specify the following in the Form Layout property:

```
<FormLayout Type="CustomLayout"
LayoutManagerClassName="MyCompany.DevStudio.SampleLayoutManager,
MyCompany.DevStudio, Version=1.0.0.0, Culture=neutral,
PublicKeyToken=451cac61f7ec4225" />
```

Constructing the XML

To use the Form Layout property editor to construct the XML

1 Make sure that you have compiled your custom layout manager project and put the resulting DLL into the bin folder of your SharePoint web application.

2 Create a qSIListForm.

3 Select **Web app Menu | Configure** from the SI List Form.

4 Click **Edit** on the Form Layout property.

5 Select **CustomLayout** in the **Form Layout Type** drop-down menu.

6 Select the class name in the drop-down menu under the Layout Manager Class Name.

7 Click **OK**.

Debugging the Code

To debug the code in your custom Layout Manager class

1 Open the SharePoint page that contains the qListForm or qSIListForm that contains the custom Layout Manager.

2 Open your project's solution using Visual Studio.

3 Select **Debug | Attach to Process**.

4 Select **w3wp.exe** in the process list.

If w3wp.exe is not listed, make sure that you check **Show processes in all sessions**. You may see more than one w3wp.exe listed. If you do, select the one with your user name or try it one by one until you find the process that contains the executable for your code.

5 Click **Attach**.

6 Set some breakpoints in your custom action code.

7 Invoke your custom action by clicking the custom toolbar button or the custom context menu that you configure in qListView or qListForm.

Deploying the Custom Layout Manager Class

When it is ready to deploy the solution, build your custom action project in release mode. Sign the assembly with a strong name key file. This ensures the assembly created can be deployed into Global Assembly Cache (GAC).You can deploy your assembly into the GAC by using the gacutil.exe that comes with the .NET Framework SDK. Here is the command: gacutil /i <DLLName>.

Once the assembly is dropped into the GAC, your class is ready to use.

Display Fields

This property defines what fields should be displayed in the List Form and how the fields are populated.

When you select the Edit button, a dialog box opens with a list of field names based on the list you have selected. You can enter a title and description for each field name.

You can add more details to the field names.

Table 7. Display Fields

Element	Description
Advanced Mode	Turn on if you want to edit Display fields in XML format. For example: <DisplayFields> <Fields ContentType="Task"> <Field Name="Title" ConsumeHTTPParameterName="InitTitle" /> </Fields> </DisplayFields>
Field Name	Displays the field name.
Title	Allows you to change the displayed title for the field. The value can be a plain string or an encoded HTML string. Change the displayed title, for example, when the title is too long or to make the title more descriptive.
Title Resource ID	If supporting a multi-lingual site, you may want to display a different Title for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The TitleResourceID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default Title is used.
Tooltip	Allows you to set the text that is displayed in the tooltip when you hover your mouse over the control for the field in the list form. If you do not specify this attribute, the display name of the field is used as the tooltip text.
Tooltip Resource ID	If supporting a multi-lingual site, you may want to display a different tooltip for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The Tooltip Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default tooltip is used.
Description	Allows you to set the field description. It can be a plain string or an encoded HTML string. The Description is added below the field value.
Description Resource ID	If supporting a multi-lingual site, you may want to display a different description for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The Description Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default description is used.

Table 7. Display Fields

Element	Description
Width (in pixels)	Allows you to set the width of the control in pixels. Some controls, such as the Rich Text Editor, have minimum width and it will not honor the specified width if it is smaller than its minimum width.
Column Span	Allows you to set the span of the column.
Row Span	Allows you to set the span of the row.
Hidden	Allows you to hide the field.If the field is hidden, the List Form will not modify that field at all. If you hide the field using the Hidden attribute, the field is processed according to the way it is defined, but it will not be shown in the List Form.
Group Name	Allows you to create dynamic behavior for a group of fields. The list form can be defined to have dynamic behavior where certain fields or group of fields can be hidden, shown, disabled, or enabled based on certain conditions. The value in the Group Name field is referred to in the Form Component Behavior property.
Column Count	Allows you to define the number of columns that the choices for the multi-choice field should be broken into. This is useful if you have many choices in your multi-choice field to minimize the vertical scrolling when entering the data into the list form. This attribute is ignored if the field is not a multi-choice field.
Hide Select and Unselect All	Allows you to hide the Select All and Unselect All links in the multi-choice field control. If not specified, the Select All and Unselect All links are shown by default. This attribute is ignored if the field is not a multi-choice field.
Auto Post Back	If selected, allows the control to refresh the form when its value changes. This attribute is applicable for the following field types: Lookup field, Cross-site lookup field, Yes/No and Choice. This attribute is ignored for other field types. This attribute should be set to true in the following scenarios: • When a lookup field or cross site lookup field is defined as the Parent Field of another field. • When a lookup field, cross site lookup field, Yes/No, or choice field is being used in the conditions of the Form Component Behavior property.
Use People Editor	If selected, allows the qListForm to display the People Editor control for the People and Group field. With the People Editor control, you can lookup any user in your directory service. By default, the value is false. If set to false, the qListForm will display the users from the site user list. This attribute only effects the People and Group field. It is ignored for any other fields. There is a known issue in the SharePoint People Editor control where it cannot persist its value during AJAX operation. Therefore, you need to set Enable AJAX property to false when you use the People Editor control and have an auto-postback lookup field in the form.
Use Current User as Default Value	If selected, allows the name of the current user to become the default value of the People and Group field when the Form Type is set to New List Item or Upload Document. This attribute is ignored if the Form Type property is set to another value or when the field is not a People and Group field. By default, the value is false.
Do not Render as Hyperlink	This attribute affects the display of the Person or Group field, the lookup field or the cross-site lookup field when the Form Type is set to Display List Item or Display Document. If set to true, the value of those kinds of field is rendered as plain text instead of hyperlink.
Disable Resize	This attribute determines whether or not the Rich Text Editor for the Rich Text Field can be resized. To resize a Rich Text Editor, you can drag the resize handle in the lower right hand corner of the editor. The resize handle is hidden when this attribute is set to true.
Expand Options on Load	Allows you to expand the list of users or options when selected.
Show User Groups	Allows you to list SharePoint groups whose members can view the web app. Separate groups with commas.

Table 7. Display Fields

Element	Description
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the web app. Separate site group names with commas (for example, Administrators, Readers). If users are defined in Show User Groups and Hide User Groups, Hide Groups takes precedence.
Mask	Allows you to define the format of the input for a single line of text field. This property is ignored for another field type. The mask can contain characters and input-mask-flags such as: # — digit or space, optional. If this position is blank in the mask, it is rendered as a prompt character. L — uppercase letter, optional. Restricts input to the ASCII letters A-Z. l (lower case L) — lowercase letter, optional. Restricts input to the ASCII letters a-z. a — accepts any character <n..m> — restricts the user input to the declared numeric range, for example: <0..255>. The numeric range mask part must occupy multiple characters of the mask. <option1|option2|option3> — restricts user input to one of the set options, for example: <Sun|Mon|Tue|Wed|Thu|Fri|Sat>. \ — escapes a mask character, turning it into a literal. "\\" is the escape sequence for a backslash. All other characters — all non mask elements will appear as themselves. Literals always occupy a static position in the mask at run time, and cannot be moved or deleted by the user.
Prompt Character	Allows you to define the character that is displayed and saved in place of the empty characters when you specify a Mask. If not specified, "_" (underscore) is used as the default prompt character. Specify only a single character in this attribute.
Parent Field	Allows you to define another lookup or cross-site lookup field that is used to filter this field. The parent field must be listed before this field in the XML property.
Parent Filter Field Name	Allows you to define the field in the parent field that is used to filter this field. In other words, it is the primary key in the list that is used in the lookup or cross-site lookup field.
Filter Field Name	Allows you to define the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.
Field Type	Allows you to select a field type. More options are available depending on the field type selected. The default is regular field. See the following fields for more information: • Fixed Value • Consume Value from an HTTP Parameter • Calculated Format • Autofill with a lookup/cross-site lookup field • Consume value from a row provided by another web app • Consume value from a session • Lookup Field • Cross-site Lookup • System Integration • Complex Category

Fixed Value

You can assign a fixed value to a field using the FixedValue attribute.

For example, to assign Accounting to the Department field:

```
<Field Name="Department" FixedValue="Accounting"/>
```

Additionally, you can use special variables for the FixedValue attribute.

- <CurrentUserID/> – this value is replaced by the ID of the currently logged in user. If you want to assign the current user to the People and Group field, use this variable. If you are using Advanced Mode and you would like to assign a task to the currently logged in user, you can specify the following Field element: <Field Name="Assigned To" FixedValue="<CurrentUserID/>" /> (If you are using Advanced Mode)
- <CurrentUserName/> – this value is replaced by the name of the currently logged in user.
- <CurrentUserEmail/> – this value is replaced by the email of the currently logged in user.
- <CurrentLoginName/> – this value is replaced by the login name of the currently logged in user. The login name is usually in the form of domain\username.
- <Today/> – this value is replaced by today's date.
- <Now/> – this value is replaced by the current date and time.

NOTE: If you are using SharePoint Form-Based Authentication, the above variables will return the following, for example:

- CurrentUserName=testuser
- CurrentLoginName=i:0#.f|<site>|testuser
- CurrentUserID=6
- CurrentUserEmail=testuser@company.com

You can edit the following:

Table 8. Fixed Value

Element	Description
Allow Edit	Allows you to edit the fixed value field.The value that is retrieved from the Fixed Value attribute will only be used to initialize the field. Afterwards, the user can modify the value as they wish and save it.

Consume Value from an HTTP Parameter

The HTTP Parameter Consumer field gets its value from an HTTP parameter. This is the attribute to create an HTTP Parameter Consumer field:

Table 9. Consume Value from an HTTP Parameter

Element	Description
Consume HTTP Parameter Name	Allows you to enter the name of the HTTP parameter whose value is to be consumed.
Allow Edit	Allows you to edit the fixed value field.The value that is retrieved from the Fixed Value attribute will only be used to initialize the field. Afterwards, the user can modify the value as they wish and save it.

Calculated Format

You can format a value of a field using values from other fields by using the CalculatedFormat attribute. The value of the another field can be referred to using the <%fieldName%> field replacement expression. If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the List Form Editor, where the Editor will encode the characters automatically for you.

For example, if you want to format the Full Name field as Last Name, First Name, the Field element should be specified as:

<Field Name="Full Name" CalculatedFormat="<%Last Name%>, <%First Name%>" />

Another example is to assign a ten-digit number to the AccountNumber field using the ID of the list item. If the ID is less than 10 digits, it is padded with zeros.

<Field Name="AccountNumber"
CalculatedFormat="<%{0:0000000000} ID%>"/>

This attribute can also be used to make a field read-only. For example, to make the AccountNumber a read-only field:

<Field Name="AccountNumber" CalculatedFormat="<%AccountNumber%>" />

Autofill with a lookup/cross-site lookup field

The Auto Fill field gets its value from the parent field. The parent field must be a lookup field or a cross-site lookup field.

The following are the attributes to create an auto-fill field:

Table 10. Autofill with a lookup/cross-site lookup field

Element	Description
Parent Field	Allows you to defines the name of the parent field. The parent field must be specified before any of the child fields.
Auto Fill Display Field Name	Allows you to define the field in the parent field where the value comes from
Auto Fill Display Format	Allows you to define the string format for the values. This attribute takes precedence over the Auto Fill Display Field Name attribute. The format of the Auto Fill Display Format is the same as the format used in the Calculated Format attribute.
Allow Edit	Allows you to define if this field is editable. By default, the list form displays this field type as a non-editable field. If this attribute is set to true, this field is editable.

For example, a List Form is used to edit the Employee list. Manager is a field in the Employee list, and it is a lookup field. Two other fields, ManagerFirstName and ManagerLastName, are filled based on the row selected in the Manager field. The Fields element for the Manager, ManagerFirstName,and ManagerLastName will look like the following:

```
<DisplayFields>
  <Fields ContentType="Employee">
    <Field Name="Manager" AutoPostBack="true"/>
    <Field Name="ManagerFirstName" ParentField="Manager" AutoFillDisplayFieldName="FirstName"/>
    <Field Name="ManagerLastName" ParentField="Manager" AutoFillDisplayFieldName="LastName"/>
  </Fields>
</DisplayFields>
```

Set the AutoPostBack attribute to true in the parent field. Otherwise, the ManagerFirstName and the ManagerLastName fields will not be refreshed when the user selects another manager.

Consume value from a row provided by another web app

The row consumer field gets its value from the row that is consumed by this List Form. To create a row consumer field, you must connect the List Form with another web app that implements the IRowProvider interface (such as the qSelector or qMultiSelectors).

These are the attributes to create a row consumer field:

Table 11. Consume value from a row provided by another web app

Element	Description
Consume Row Display Field Name	Allows you to defines the field name in the row from where the value comes.
Consume Row Display Format	Allows you to define the string format for the values. This attribute takes precedence over the Consume Row Display Field Name attribute. The format of the Consume Row Display Format is the same as the format used in the Calculated Format attribute.
Allow Edit	Allows you to define if this field is editable. By default, the list form displays this field type as a non-editable field. If this attribute is set to true, this field is editable.

For example, a List Form is used to edit a Tasks list. The Tasks list contains a Project Name field, and this field is configured as a row consumer field. The row is provided by a qSelector web app that displays the list of projects from the Projects list and is connected to the List Form.

```
<DisplayFields>
  <Fields ContentType="Task">
    <Field Name="ProjectName"
  ConsumeRowDisplayFieldName="Name"/> </Fields>
</DisplayFields>
```

Consume value from a session

Session consumer field gets its value from a row that is stored in the session object. The concept is similar to Row Consumer Field Attributes. However, if you need to get values from multiple providers, you must use the Session Consumer Field instead of Row Consumer Field because the List Form can only be connected to one row provider.

To create a session consumer field, you must first declare a Sessions element. A Sessions element can contain one or more Session elements. The Sessions element contains the information about the list where the row stored in the session comes from. After the Sessions element is defined, you can use it in the Field element. The XML for the session consumer field looks like the following:

```
<DisplayFields>
  <Sessions>
     <Session Name="sessionName" SiteUrl="siteUrl"
  ListName="listName"/> </Sessions>
  <Fields ContentType="contentType1">
    <Field Name="field Name" ConsumeSessionName="sessionName"
ConsumeSessionDisplayFieldName="displayFieldName"/>
  </Fields>
</DisplayFields>
```

These are the attributes to create a row consumer field:

Table 12. Consume value from a session

Element	Description
Name	Allows you to enter the name of the session you want to consume.
Site URL	Allows you to enter the URL of the list site.
List Name	Allows you to enter the list name.
Consume Session Display Field Name	Allows you to defines the field name in the session from where the value comes.
Consume Session Display Format	Allows you to define the string format for the values. This attribute takes precedence over the Consume Session Display Field Name attribute. The format of the Consume Session Display Format is the same as the format used in the Calculated Format attribute. If you select New List Item type as Form type, leave this field blank unless it is in simple text format.
Allow Edit	Allows you to define if this field is editable. By default, the list form displays this field type as a non-editable field. If this attribute is set to true, this field is editable.

You can replace the Consume Session Display Field Name attribute with Consume Session Display Format if you want to use multiple fields as the source of values for this field.

For example, a List Form is used to edit a Tasks list. The Tasks list contains a Project Name field, and this field is configured as a session consumer field. The row is provided by a qSelector web app in another page that is visited before this page is opened.

```
<DisplayFields>
  <Sessions>
    <Session Name="ProjectsSession" SiteUrl="../../.." ListName="Projects"
  /> </Sessions>
  <Fields ContentType="Task">
    <Field Name="ProjectName" ConsumeSessionName="ProjectsSession"
ConsumeSessionDisplayFieldName="Name"/>
  </Fields>
</DisplayFields>
```

Lookup Field

You can sort and filter the entries for the Lookup fields by using the Sort Field and CAML Filter attributes, respectively. These attributes are ignored if the field is not a lookup field.

For example, if you are using Advanced Mode and you want to sort the Related Task lookup field by its title and only want to show high priority tasks, you can specify the following configuration:

```
<Field Name="Related Task" SortField="Title" CamlFilter="&lt;Eq&gt;&#xD;&#xA;
&lt;FieldRef Name=&quot;Priority&quot; /&gt;&#xD;&#xA; &lt;Value
Type=&quot;Choice&quot;&gt;(1) High&lt;/Value&gt;&#xD;&#xA;&lt;/Eq&gt;" />
```

Cross-site Lookup

Cross-site lookup is the capability of the List Form to refer to multiple lists in different sites.

To use this feature, create a single-line-of-text field, not a lookup field. Internally, the List Form will store the field value in this format: siteUrl;#listName;#listItemId.

For example, add a Document Type field to the metadata of every document that you store in the document library. One way of doing this is to make this field a choice field. However, if you need to change the options for the Document Type, you have to go to every document library in every site to change it. The same problem occurs if you make the Document Type field a SharePoint lookup field (because SharePoint can look up a list in the same site). The solution is to make the Document Type field a cross-site lookup field. You can create a Document Type list in a centralized place and create a DocumentType field (as single line of text field) in every document library. Configure this field as:

```
<Field Name="DocumentType" DisplayFieldName="Type" SortField="Type" AutoPostBack="true">
  <List SiteUrl="../../.." SiteName="Dashboard" ListName="DocumentType" />
</Field>
```

The Display Field Name attribute can be replaced with Display Format attribute if you want to display multiple fields in the drop-down menu. The value of the Display Format attribute is in the same format as that of the Calculated Format attribute.

The above configuration assumes the following conditions:

- The DocumentType list resides three levels above the current page (indicated by ../../.. in the Site URL attribute).
- The Document Type list contains one field called Type that contains the text for the document type, such as Budget, Proposal, Manual.
- You want to display the document types sorted alphabetically using the Sort Field attribute. If you do not specify the Sort Field, the document types are sorted in the order they appear in the list; sorted by list item ID.
- The Site Name attribute is a text description of the Site URL. It does not have to match with the real name of the site pointed to by Site URL.
- You want the form to be refreshed every time you select another item by specifying AutoPostBack="true". This is necessary if this field is a parent field of other fields in the form and the child fields are visible. Otherwise, it is optional.

You can specify more than one List element inside the Field element. If you do, the List Form will display two dropdowns. The first drop-down menu selects the list and the second drop-down menu selects the items in the list. This function makes the Site Name important because the first drop-down menu displays the list as List Name in SiteName.

System Integration

System Integration (SI) field gets its values from a data column accessible through the System Integration Framework – the same mechanism used by SI Web apps to connect to external data sources.

In order to use the SI Field, the qListForm should be added to a web app page which belongs to a SharePoint site that has System Integration configuration defined. It also requires that the Catalog property be defined prior to specifying the SI Field.

The required attributes for a field of this type:

Table 13. System Integration

Element	Description
Entity Name	Allows you to specify which entity to use from Catalog property.
Operation Name	Allows you to specify which entity operation to use from Catalog property to retrieve the options from the external system. The syntax for the operation is EntityName.OperationName. Both the entity and the operation must already be defined in the Catalog property.
Data Member/Data Index	Allows you to specify the data table name that contains the options in case the operation returns multiple tables. If the external system returns multiple data tables without names, you can use the DataIndex attribute to refer to the table. The index is a number and it starts with 0 (not 1).
Data Text Field	Allows you to specify the column in the data table whose value is displayed in the drop-down menu.
Data Value Field	Allows you to specify the column in the data table that contains the real value that should be saved back to the external system. Define the DataTextField/DataValueField to be the primary key column for your external data and any other columns as the source for the secondary fields to ensure data integrity; however, it is not required.

Table 13. System Integration

Element	Description
Secondary Field Name	Allows you to specify an additional column in the data table whose value is displayed in the drop-down menu. This is an optional field. Secondary fields are elements under the regular display field so you can specify one or more fields. These fields is read-only.
Data Value Field	Allows you to specify the column in the data table from which the actual value is used that is associated with the displayed Secondary Field.
Eliminate Duplicate Values	Allows you to specify whether you want to eliminate duplicate values in the drop-down menu.
Use Item Picker	Allows you to specify whether to use an entity item picker or a drop-down list to display the System Integration column. The default is to use the drop-down list. If you select to use the item picker, you may specify zero or more Finder Operations to be used by the entity item picker. The Finder Operation references the entity.operation defined in the System Integration Catalog property. You can define one or more entity/operation in the Catalog to help filter the data returned from the external system. Select the Add Operation button to add a Finder Operation: • Finder Operation — specifies a valid entity and operation defined in Catalog property to be used in the LookupOperation. • Filter Field — the field name to be used for filtering. If the operator takes an argument, the filtering happens in the back-end server. If not, the filtering happens in the web server by using the data view filter. The filter field name is also used to match the finder operation during the item picker search. • Data Member/Data Index — defines the data table name that contains the options in case the operation returns multiple tables. If the external system returns multiple data tables without names, you can use the DataIndex attribute to refer to the table. The index is a number and it starts with 0 (not 1). The Item Picker option provides the ability to filter a large amount of data before bringing the filtered data into the list form. The default, drop-down list, option will bring all the data over to SharePoint and display it all in a list. Make sure to take into account the amount of data that is returned when deciding the best option to display SI column data using drop-down menu or item picker. Here is an example: <DisplayFields> <Sessions /> <Fields ContentType="Task"> <Field Name="Title" /> <Field Name="Priority" /> <Field Name="Status" /> <Field Name="AWEmployeeID" LookupOperation="Product.EmployeeList" DataMember="row" DataTextField="LoginID" DataValueField="EmployeeID"> <SecondaryField Name="AWContactID" DataValueField="EmployeeID" /> <SecondaryField Name="AWLoginID" DataValueField="LoginID" /> </Field> </Fields> </DisplayFields>

Complex Category

The Complex Category field allows the SharePoint discussion view web app to function like the Lotus Notes response document which contains a category attribute. Categories that allow multiple values are not supported.

The attributes for a field of this type:

Table 14. Complex Category

Element	Description
Edit Mode	Allows you to define how the treeview for the complex category control should be displayed. There are two options: • Inline — the treeview control is displayed in the form itself which enable the user to assign and edit the complex category values directly in the form • Popup — the treeview control will display the complex category value as a read only field with and Edit link. When the user clicks the Edit link, it will display the treeview in a popup dialog box. The Popup option is recommended if you have many categories to be displayed in the treeview.
Complex Category Index Site URL	Allows you to index the Complex Category field. Another SharePoint list is used to store the index. The Complex Category Index Site URL is the site URL of the index list. If not defined, the Complex Category Index Site URL will default to the current site URL.
Complex Category Index List Name	Allows you to set the list name of the index list. If not defined, the Complex Category Index List Name will default to the name of the discussion list plus Categories. For example, if your discussion list name is Team Discussion, then the index list name is Team Discussion Categories.
Height	Allows you to define the height of the complex category control in pixels. If not specified, it will always fit the whole categories in the form without a scrollbar
Expand to Level	Allows you to define the number of category levels that can be expanded when the complex category control is loaded for the first time.

System Integration

This property defines the entity and the operations related to the entity.

Catalog

Entities contain the following elements:

Table 15. Catalog

Element	Description
Advanced Mode	Turn on if you want to edit the Catalog in XML format. This property is an XML string in this format: <Catalog> <Entity Name="entityName" System="systemName" Service="serviceName" Default="true/false"> <Properties> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> </Properties> <Operation Name="operationName" Method="methodName" Default="True/False" > <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> </Operation> </Entity> <Entity> ..</Entity> </Catalog>
System	Allows you to specify the system name that is defined in the System Integration configuration file. If the system name does not exist in the System Integration configuration file, you will get an error.
Service	Allows you to specify the service name that is defined in the System Integration configuration file. The service name that you specify here must belong to system that you specify in the System attribute. If the service name does not exist in the System Integration configuration file, you will get an error.
Name	Allows you to specify the name of the entity which must be unique within this Catalog. The name does not have to match with any name in your external system. However, it is recommended that you use a descriptive name for your entity.
Set Session Name	Allows you to enter name of the session variable where the edited or newly created item is stored when it is saved, or the item that is being displayed or edited is stored when it is loaded.
Reset Session Names	Allows you to reset (set to NULL) the value of the session variable whose name is specified in this attribute. Specify multiple names by separating them with commas.
Default	Allows you to define this entity as the default for the list form. If this element is not specified, the first entity that is listed in the catalog becomes the default entity. The default operation of the default entity is the operation that is used to retrieve the data when the list form is loaded for the first time in edit or display mode.

You can add operations to your entities by configuring the following elements:

Table 16. Operations

Element	Description
Name	Allows you to specify the name of the operation. This name does not have to match with any name in your external system. This name is used to refer to this operation in the Action property.

Table 16. Operations

Element	Description
Method	Allows you to specify the real name of the operation in your external system. For example, it may refer to the name of a web service method. Or it may refer to the name of a stored procedure in your SQL Server database.
Default	Allows you to define this operation as the default. The default operation is the first operation that is called to retrieve the entity to be displayed or edited. If this attribute is not specified, the first operation listed in the entity becomes the default operation.

You can define parameters for the operation by configuring the following elements:

Table 17. Parameters

Element	Description
Name	Allows you to specify the name of the parameter.
Source	Allows you to define the source of this parameter. The source can be one of the following: • DefaultValue — the value of the parameter that is the default • NullValue — the value of the parameter is blank • FixedValue — the value of the parameter that is defined in the Value attribute • HttpRequest — the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter. • Input — the value of the parameter that is retrieved from one of the input fields in the form. You specify the name of the input field in the SourceName attribute. Additionally, you can retrieve the current user information as the value of the parameter. You can specify one of the following name in the SourceName attribute to retrieve the current user information: • RowFromAnotherWebApp — the value of the parameter that is retrieved from the row that is consumed from another web app. You specify the name of the field that is consumed in the SourceName attribute. • Session — the value of the parameter that is retrieved from the row that is stored in the session. You specify the name of the session in the SessionName attribute. You specify the name of the field that is consumed in the SourceName attribute. • ComplexType — the value of the parameter is an object based on the Type attribute and Member definition inside the Parameter. Array and nested complex types are supported. • Array — the value of the parameter is an array of values • XML — the value of the parameter that is dynamically built when the condition is execute at runtime
Usage	Allows you to define the direction for this parameter. The options are In, Out, InOut, or ReturnValue.

You can define one or more Property elements.

Table 18. Properties

Element	Description
Name	Allows you to specify the name of the property. Refer to the documentation for the DAO Provider to your external system will tell you the name of the property that you must define.
Type	Allows you to specify type of value that is specified in the Value attribute. Example: System.String.
Value	Allows you to specify the value of the property.

Optional Content

You can configure the following optional content:

Table 19. Optional Content

Element	Description
Display Attachment Field	Allows Display Attachment field to be displayed on the form
Display Creation and Modification Info	Allows Display Creation and Modification Info field to be displayed on the form
Display Required Field Message	Allows Required Fields Messages to be displayed on the form
Enable Multiple File Upload	Allows Enable Multiple File Upload field to be displayed on the form
Check Overwrite Existing File check box	Allows Check Overwrite Existing File check box to be displayed on the form
Show Save As File Textbox	Allows Show Save As File textbox to be displayed on the form
Hide Parent Folder Name	Allows Hide Parent Folder Name to be displayed on the form

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Form
- Navigation
- Email Notification

Actions

The list form has some pre-defined actions, such as Save, Delete, Copy or Move. You can also write your own custom action and hook it up with the list form.

The Actions page contain the following elements:

Table 20. Actions

Element	Description
Custom Actions	For more information, see Custom Actions on page 165.
Custom Action Error Display	Allows you to set where the error message is displayed if the custom action throws an exception. The options are: • Inline — the error message is displayed in the list form above the displayed fields. • Popup — the error message is displayed in a popup dialog box. • InlineAndPopup — the error message is displayed in a popup dialog box and inline above the displayed fields. Popup is the default. This property will only affect the error message that is returned by the ICustomAction implementation. It will not affect the error that is generated internally by the List Form.

Custom Actions

This property enables you to define additional buttons in the toolbar or context menu item in the context menu. You can program that button or context menu item to do a series of actions. The List Form supports some built-in actions. However, you can write your own custom action using one of the .NET languages, compile it, and call it by the List Form. See Custom Action Help on page 375 to see how to write your own custom actions.

NOTE: The toolbar button affects all the items that are selected in the List Form. The context menu item affects only the item that is being right-clicked regardless of how many items are selected in your List Form.

Here are some ways that you can use this functionality:

- Add a custom toolbar button called "Assign All to Me" that will assign all of the selected tasks in the List Form to me.
- Add a custom toolbar called "Approve" that will change the status of all of the selected expense items to Approved.
- Create a custom context menu item called "Publish" that will move the right-clicked document into another document library.
- Create a custom context menu item or toolbar item to start a workflow.
- With the ability to write your own custom action, you can virtually do anything to the data when you click the custom button that you define.

NOTE: The custom action in the List Form does not support the Save action.

The Custom Actions element contains one Toolbar element and one Context Menu element. These elements can contain one or more Action Item elements. You can associate the Action Item with one or more Action elements. The Action element define a certain operation that is carried out by the action item when it is clicked. When you add an action item, you can configure the following:

Table 21. Custom Actions

Element	Description
Advanced Mode	Turn on if you want to edit Custom Actions in XML format. Here are the schema of this property: <CustomActions> <Toolbar> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PromptTextResourceID=”promptTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </Toolbar> <ContextMenu> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PromptTextResourceID=”promptTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </ContextMenu> </CustomActions>
IsSeparator	Allows you to set the item as a separator.
ID	Allows you to enter a unique ID that will identify the item. Use a descriptive identifier to configure the action item with the editor.
Text	Allows you to enter how the action item is displayed in the toolbar.

Table 21. Custom Actions

Element	Description
Text Resource ID	Allows you to define this property if you support a a multi-lingual site. This attribute defines the identifier of the string in the Resource List that is used as the title of the Web app. The Text Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the value in the Text attribute is used.
Prompt Text	Allows you to prompt the user to click the toolbar button or the context menu item.
Prompt Text Resource ID	Allows you to define this property if you support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the title of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Access Key (Toolbar Only)	Allows you to define one character from the Text attribute that becomes the access key to this toolbar button or context menu item. For example, if you define a letter T as the access key, you can press ALT+T and the browser will put the focus on this button or context menu item. If there are multiple elements on the page with the same access key, you can repeat ALT+T repeatedly until you get the focus on this toolbar button or context menu item.
Position	Allows you to set the position of the button in the toolbar. The index starts with 0.
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot

When you add an action, you can configure the following:

Element	Description
Name	An optional element which allows you to identify a given action in order to access it from another action. You can refer to this action from the GoToURL action and from ICustomActionEx Interface.

Type	Allows you to determine the type of the action. Here are the options:
	• Delete — deletes the item.
	• Move — allows you to move the item to a target. You must specify a Target Site URL, Target List Name, and Target Folder. This action only works for document in a document library.
	• Copy — allows you to copy the item to a target. You must specify a Target Site URL, Target List Name, and Target Folder.
	• GoToURL — redirects the user to a specific URL. You must specify the URL and where you want the URL to open. You must specify the following parameters:
	  • Input - the current user information as the value of the parameter
	  • Session - the name of the session variable where the value comes from when the source is set to Session
	  • HttpRequest - the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter.
	  • ListItem - the value of the parameter is a list item or row
	  • RowFromAnotherWebApp — the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. There are two types of action that can produce an output: an action with Type of ExecuteOperation, and an action with Type of Custom that points to custom action implementation of ICustomActionEx Interface. You do that by defining the SourceName attribute of the action. This is the syntax of the SourceName attribute when you use ResultFormAction source: <ActionName>.<ResultType>[.Name], where ActionName refers to the Name attribute of the action that produces the output, ResultType can be OutParameter (if the action result is returned through one of the out or inout parameter) or RawData - (if the action result is returned as an object). Name is optional. It further designates the object we want to use for the parameter. You do not have to specify the Name when the ResultType is RawData. However, if the ResultType is OutParameter, this name specifies the name of the out or input key value pair.
	  • ResultFromAction - the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem
	  You must define a source name (where in the source you want to get your information from), name (the name of the parameter that is appended to the URL you specified), and Session (the name of the session variable where the value comes from when the source is set to Session)
	• GoToSource — redirects the user to the URL specified in the Source HTTP parameter. The URL to the page must look like: http://...?Source=URL for this option to work.
	• StartWorkflow — starts the specified workflow in the Workflow Name drop-down field. You must select a Workflow name.
	• ReturnToMasterChart — returns the user to the master chart page. You use this action type if this web app is located in the drill down page.
	• Custom — implements your own custom action and call it with this action type. Enter a Class name that implements the ICustomActionEx or ICustomAction interface, or select a class from the drop-down list, if available.

Form

The Form page contains the following elements:

Table 22. Form

Element	Description
Form Initialization Actions	Allows the List Form to be automatically pre-populated when the Form Type property is set to NewListItem, CreateDocument, or UploadDocument. The List Form will call the defined custom actions that are specified in this property. The fields that cannot be automatically pre-populated are: • Auto-fill field (fixed value, consume value from an HTTP parameter, calculated format, consume value from a session, consume row from a row provided by another web app, auto fill with a lookup or cross-site lookup field) • BDC Column • SI Column • Complex category field • Cross site lookup field See the Custom Action Help on page 375 chapter on how to write a custom action to initialize the list form. You can click Edit and turn on Advanced Mode to edit Form Initialization Actions in XML: <FormInitialization> <Action Name=”initial 1” Type="Custom" Class="MyCompany.DevStudio.SampleFormInitializationAction, MyCompany.DevStudio, Version=1.0.0.0, Culture=neutral, PublicKeyToken=451cac61f7ec4225" / > <Action Name=”initial 2” Type="Custom" Class="MyCompany.DevStudio.SampleFormInitializationAction2, MyCompany.DevStudio, Version=1.0.0.0, Culture=neutral, PublicKeyToken=451cac61f7ec4225" / > </FormInitialization> Form initialization is a way to auto fill the form. It should not be used in conjunction with another auto fill method. If you do this, the result is unpredictable (that is sometimes the value from form initialization will take precedence, but sometimes the value from the other auto fill method will take precedence).
Form Component Behavior	For more information, see Form Component Behavior on page 170.
Dependent Lists	For more information, see Dependent Lists on page 172.
Template List Site URL	Allows you to specify the site URL of the document library that contains the document template that is used to create a new document when the Form Type is “Create Document”.
Template List Name	Allows you to specify the List Name of the document library that contains the document template that is used to create a new document when the Form Type is ‘CreateDocument’. When both the Template List Site URL and the Template List Name are specified, the qListForm will display a drop-down menu above the Field Name field that contains list of documents in that doc library. The user can then select a document that will serve as a template for the new document.

Form Component Behavior

This property is used to control the conditional behavior of the different components in the form, such as a field, a group of fields, or a tab. You can specify the following conditional behaviors: Show When, Hide When, Enabled When, Disabled When, Valid When, Invalid When, and Required When. See Table 24 for more information.

ValidWhen, InvalidWhen, and RequiredWhen are used with SharePoint List Item and Column validation. The validation is processed by:

1. The Form Component Behavior is processed first. If it succeeds (meaning no condition is true for InvalidWhen and no condition fails for ValidWhen and no condition is true for RequiredWhen), it goes on to perform SharePoint Column and List Item Validation. If they succeed, then Save and Close procedures follow.
2. The implementation of SharePoint List and Column validation applies to qListForm Save and Close action only. If user defines a custom action that has "performValidation" flag set to true, it will only enforce Form Component Behavior and will ignore List and Column Validation.

This property is an XML string in this format:

The Form Component Behavior element can contain one or more Component elements. Each Component element controls the behavior of a specific component in the form like a field or tab.

The Component element contains the following elements:

Table 23. Form Components

Element	Description
Advanced Mode	Allows you to edit Form Component Behavior in XML. <FormComponentBehavior> <Component Type="Field/Group/Container" ID="ComponentID"> <ShowWhen> [Condition specified in CAML Filter format] </ShowWhen> <HideWhen> [Condition specified in CAML Filter format] </HideWhen> <EnabledWhen> [Condition specified in CAML Filter format] </EnabledWhen> <DisabledWhen> [Condition specified in CAML Filter format] </DisabledWhen> <InvalidWhen Message=”Custom Message when condition is true”> [Condition specified in CAML Filter format] </InvalidWhen> <ValidWhen Message=”Custom Message when condition is true”> [Condition specified in CAML Filter format] </ValidWhen> <RequiredWhen Message=”Custom Message when condition is true”> [Condition specified in CAML Filter format] </RequiredWhen> </Component> <Component ...> <Component ...> </FormComponentBehavior>

Table 23. Form Components

Element	Description
Type	Defines the type of the component that is assigned the dynamic behavior. The choices are: Field, Group, or Container (that is, tab).
ID	Defines the ID or name of the component whose behavior is defined to be dynamic. When the Type is set to Field, this ID refers to the Name of a field that is defined in the Display Fields property. When the Type is set to Group, this ID refers to the Group Name attribute of a field that is defined in the Display Fields property. When the Type is set to Container, this ID refers to the ID of a container that is defined in the Form Layout property.

The Component element may contain any or none of the following conditional behavior elements:

Table 24. Conditional Behavior Components

Element	Description
Show When	Defines the conditions of when the form component should be shown.
Hide When	Defines the conditions of when the form component should be hidden. This conditional behavior takes precedence over the other conditional behavior. Therefore, if Hide When and Show When are defined and both evaluate to true, the component is hidden.
Enabled When	Defines the conditions of when the form component should be enabled.
Disabled When	Defines the conditions of when the form component should be disabled. This conditional behavior takes precedence over the Enabled When conditional behavior. Therefore, if Enabled When and Disabled When are defined and both evaluate to true, the component is disabled.
Required When	Defines the conditions of when the form component should be required. This conditional behavior is for fields only. It has no effect on a field that has been defined as required by SharePoint. A custom message can be specified. It is displayed when the Required When condition is satisfied. The message is displayed by default in red after the input control on the form. However you can specify any text or HTML code as the Message attribute.
Valid When	Defines the conditions of when the form component should be valid. This conditional behavior is for fields only. A custom message can be specified. It is displayed when the Valid When condition is satisfied. The message is displayed by default in red after the input control on the form. However you can specify any text or HTML code as the Message attribute.
Invalid When	Defines the conditions of when the form component should be invalid. This conditional behavior is for fields only. This conditional behavior takes precedence over the Valid When conditional behavior. Therefore, if Valid When and Invalid When are defined and both evaluate to true, the field is invalid. A custom message can be specified. It is displayed when the Invalid When condition is satisfied. The message is displayed by default in red after the input control on the form. However you can specify any text or HTML code as the Message attribute.

For fields of type text, numeric or date/time, regular expression matching can be used for validation. Use the “Matching” operator in the conditional behavior element.

The following are some examples of how to use this property:

1 Show the Resolved Date and Resolved By fields when the Status field is changed to "Resolved". By specifying both fields’ GroupName attribute in the Display Fields property to “ResolvedFieldsGroup”, it is defined that both fields belong to the same group.

```
<FormComponentBehavior>
  <Component Type="Group"
    ID="ResolvedFieldsGroup"> <ShowWhen>
      <Eq><FieldRef Name="Status"/><Value
    Type="Choice">Resolved</Value></Eq> </ShowWhen>
  </Component>
</FormComponentBehavior>
```

2 Enable the "Amount Paid" field when the Invoice Status field is changed to "Paid".

```
<FormComponentBehavior>
  <Component Type="Field" ID="Amount
    Paid"> <EnabledWhen>
      <Eq><FieldRef Name="Invoice Status"/><Value
    Type="Choice">Paid</Value></Eq> </EnabledWhen>
  </Component>
</FormComponentBehavior>
```

3 Hide the Reason field when the Project Status field is not "Behind"

```
<FormComponentBehavior>

  <Component Type="Field" ID="Reason">
    <HideWhen>
      <Neq><FieldRef Name="Project Status"/><Value
    Type="Choice">Behind</Value></Neq> </HideWhen>
  </Component>
</FormComponentBehavior>
```

4 Show error message if field, Assigned To, is blank when Status is “In Process”

```
<FormComponentBehavior>
  <Component Type="Field" ID="Assigned To">
    <InvalidWhen Message="Assigned To Must be filled if Status is In
      Process"> <And>
        <IsNull>
          <FieldRef Name="AssignedTo"
        /> </IsNull>
        <Eq>
          <FieldRef Name="Status" />
          <Value Type="Choice">In
        Progress</Value> </Eq>
      </And>
    </InvalidWhen>
  </Component>
</FormComponentBehavior>
```

5 Field % Complete must be between 0 and 100

```
<FormComponentBehavior>
  <Component Type="Field" ID="% Complete">
    <ValidWhen Message="% Complete must be between 0 and
      100"> <And>
        <Geq>
<FieldRef Name="PercentComplete" /> <Value
          Type="Number">0</Value>
        </Geq>
        <Leq>
          <FieldRef Name="PercentComplete"
          /> <Value Type="Number">1</Value>
        </Leq>
      </And>
    </ValidWhen>
  </Component>
</FormComponentBehavior>
```

Dependent Lists

This property identifies the child lists to be updated when the List Form saves the changes to the current list item.

This property works in conjunction with the Form Type property. When the Form Type property is set to EditListItem or EditDocument, the List Form will update the values in the child lists. When the Form Type

property is set to NewListItem or UploadDocument, the List Form will create a new record in the child lists. This is useful when you have two lists with a one-to-one relationship.

This property also prevents the deletion of the current item if there are any child records in the specified lists. The user can delete a record when the Form Type property is set to DisplayListItem or EditListItem.

The Lists element can contain multiple List elements. One List element represents one child list. These are the attributes of the List element:

Table 25. Dependent Lists

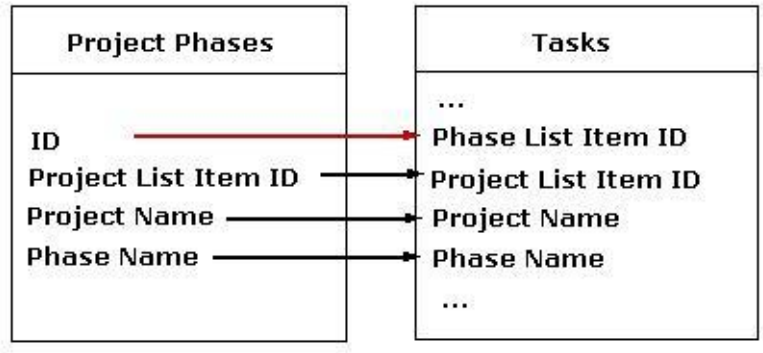
Element	Description
Advanced Mode	Allows you to edit Dependent Lists in XML. The value of this property is an XML string in this format: <Lists> <List SiteUrl="siteURL" ListName="listName" KeyFieldName="keyFieldName"> <Field SourceFieldName="sourceFieldName" TargetFieldName="targetFieldName"/> </List> </Lists>
Site URL	Allows you to set the URL of the site that contains the child list.
List Name	Allows you to set the name of the child list. The name is case sensitive
Key Field Name	Allows you to set the name of the field in the child list that contains the ID of the parent item. The key field is usually a single line of text that contains the parent item ID or a cross-site lookup field to the parent list. The name is case sensitive.

The List element can contain zero or more Field elements. One Field element represents a field in the child list that needs to be updated. These are the attributes of the Tasks list:

- Source – The name of the field in the parent list where the value comes from. The name is case sensitive.
- Target – The name of the field in the child list where the value is copied to when the parent record is saved. The name is case sensitive.

The following diagram illustrates parent child relationship between two different lists

Figure 2. Parent/Child Relationship between two lists



The Project Phases list is the parent list of the Tasks list. The ID field is the primary key in the Project Phases list because the value of the ID field is guaranteed to be unique (every SharePoint list and library contains a field called ID. This field cannot be modified and its value is uniquely auto-generated by SharePoint). The Phase List Item ID is the foreign key in the Tasks list. We replicate the value of the Project List Item ID, Project Name and Phase Name into the fields with the same name in the Tasks list.

For example, if the List Form is configured to edit an item in the Project Phases list, then every time we modify the information in the Project Phase list we need to make sure the values that are replicated and the Tasks lists are modified. The following is how the Dependent List property should be setup:

```
<Lists>
  <List SiteUrl="." ListName="Tasks" KeyFieldName="Phase List Item ID">
    <Field SourceFieldName="Project List Item ID"TargetFieldName="Project List Item
    ID"/> <Field SourceFieldName="Project Name"TargetFieldName="Project Name"/>
    <Field SourceFieldName="Phase Name"TargetFieldName="Phase
  Name"/> </List>
</Lists>
```

Navigation

The Navigation page allows you to configure how and where the user will navigate in the web app. It contains the following elements:

Table 26. Navigation

Element	Description
Save Button Click Action	Determines what will happen when the user clicks the Save and Close button on the toolbar. These are the choices for this property: • GoToNextPageUrl — Go to the page specified in the Next Page URL property. You can use this option if you always want the user to go to the same URL every time they save the form. • GoToSource — Go to the page specified in the Source HTTP parameter. For this option to work, the URL of the current page must contain the Source HTTP parameter (http://...?Source=...). This option will give you the same behavior as the Microsoft List Form. If you open the form using qListView, the listview automatically sets the Source HTTP parameter for you. If you use this option and the Source HTTP is not in the URL, the list form will give you an error. • TrySourceThenNextPageUrl — Go to the page specified in the Source http parameter if one exists. If not, go to the page specified in the Next Page URL property. This option is the most commonly used one. Most of the time, you want to go the URL specified in the Source HTTP parameter. However, if that parameter is not available (for example, the user may type in the URL directly in the address bar), you want to have an alternative URL to go to.
Next Page URL	Works in conjunction with the Save Button Click Action property. When this property is set to GoToNextPageUrl or TrySourceThenNextPageUrl, allows you to set the page to go to when the user clicks the Save and Close button on the toolbar if the Save Button Click Action property is set to GoToNextPageUrl or TrySourceThenNextPageUrl. If this field is blank, you are redirected to the List's Web Address.

Table 26. Navigation

Element	Description
Cancel Button Click Action	Determines what will happen when the user clicks the Cancel button on the toolbar. • SameActionAsSaveAndClose — This is the default value. You may want to select another option if you want the Cancel button to behave differently than the Save and Close button. This option is useful if you want to guide the user through a series of steps when doing data entry. For example, when user is in Form1, clicking Save and Close will bring them to Form 2 while clicking Cancel button will bring them back to the home page. • GoToGoBackUrl — Go to the page specified in the Go Back URL property. You can use this option if you always want the user to go to the same URL every time they save the form. • GoToSource — Go to the page specified in the Source HTTP parameter. For this option to work, the URL of the current page must contain the Source HTTP parameter (http://...?Source=...). This option will give you the same behavior as the Microsoft List Form. If you open the form using qListView, the listview automatically sets the Source HTTP parameter for you. If you use this option and the Source HTTP is not in the URL, the list form gives you an error. • TrySourceThenGoBackUrl — Go to the page specified in the Source http parameter if one exists. If not, go to the page specified in the Go Back URL property. This option is the most commonly used one. Most of the time, you want to go the URL specified in the Source HTTP parameter. However, if that parameter is not available (for example, the user may type in the URL directly in the address bar), you want to have an alternative URL to go to.
Go Back URL	Allows you to set which page to go to after the user clicks the Cancel button on the toolbar if the Cancel Button Click Action property is set to GoToGoBackUrl or TrySourceThenGoBackUrl.
Show Edit Button	Allows you to display the Edit Item button when the Form Type is set to DisplayListItem or DisplayDocument.
Edit Form URL	Allows you to set the page to go to after the Edit Item button is clicked. If not defined, the user will redirected to the EditForm.aspx of the list. The Edit Item button will show up when the Form Type is set to Display Item or Display Document and the Show Edit Button property is set to true.
Show Version History Button	Allows you to display the Version History button.
Display Form URL	Displays the history of changes in the Multiple Lines of Text field when the Append Changes to Existing Text setting in the field is turned on. The user can click one of the texts in the history list to view that version of the text. This property define the URL of the Display Form to display previous version of the text. If this property is not defined, the default Display Form of the list is used.

Email Notification

The Email Notification page allows you to configure the web app to be sent as an email. It contains the following:

Table 27. Email Notification

Element	Description
Display Email Notification Section	Allows you to determines whether or not the email notification section should be displayed in the List Form. The email notification will enable the user to send an email to one or more recipients when an item is added or modified.
Subject	Allows you to specify the default subject that is displayed by the list item email.
Message	Allows you to specify the default message that is displayed by the list item email.
Allow Custom Message	Allows you to set the list item to allow the user to modify the message.

Table 27. Email Notification

Include Link to List or Library	Allows you to allows the hyperlinks to the AllItems.aspx of the list or document library.
Include Link to Item	Allows you to determine whether the message will include the hyperlink to the newly added or modified list item.
Include Document as Attachment	Allows you to allow the email to contain the selected document as attachments.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Toolbar
- Control
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 28. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 29. Toolbar

Element	Description
Toolbar Location	Allows you to define where a toolbar for the list form should be displayed. The choices are TopAndBottom, Top, Bottom or None. Select None if you do not want to display the regular toolbar. Only the Ribbon buttons are displayed in this case.
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show Save Button	Allows you to display the Save and Close button.
Show Cancel Button	Allows you to display the Cancel button.
Show Delete Button	Allows you to show the Delete button in the toolbar.

Table 29. Toolbar

Element	Description
Show Mark Private/Public Button	Allows you to display the Mark Private/Public toggle button. This button will only be displayed for a new form or an edit/display form and the logged in user is the creator of the item. If an item is marked as private, only the creator can see it. In New or Edit mode, if this property is changed for an item, the change takes place when the Save button is clicked. In Display mode, if this property is changed for an item, the change takes place immediately with the following popup message: “Are you sure you want to make this item private? This change will take place immediately” OR “Are you sure you want to make this item public? This change will take place immediately”
Show Manage Permissions Button	Allows you to display the Manage Permissions button.
Show Manage Copies Button	Allows you to display the Manage Copies button.
Show Workflows Button	Allows you to display the Workflows button.
Show Alert Me Button	Allows you to show the Alert Me button in the toolbar. The Alert Me button creates a list-level alert.
Save and Close Button Text	Allows you to set the display text for Save and Close button.
Cancel Button Text	Allows you to set the display text for the Cancel button.

Control

The Control page allows you to set the appearance of your user controls in a web app. It contains the following:

The Control page contains the following:

Table 30. Control

Element	Description
Rich Text Editor Skin Name	Allows you to select the skin name for the rich text editor. The rich text editor appears in the form when the Type attribute of the Field element in the Display Fields property is set to RichText. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins When creating a custom skin, you can refer to the Sample Skin folder in the install directory. Clear your browser cache frequently while working with custom skins. In IE, CSS cache can be cleared by clicking the **Clear Cache** button in the CSS tab of Developer Tools, located under the Tools menu of the browser.
Rich Text Editor Toolbar Settings	Define the toolbar groups and the order in which they appear in the toolbar for the text editor for rich text and enhanced rich text. You can edit Rich Text Editor Toolbar Settings in XML by turning on Advanced Mode.

Table 30. Control

Element	Description
Complex Category Tree Skin Name	Allows you to specify the skin name for the Complex Category Tree in the list form. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.
Drop-Down Skin Name	Allows you to specify the skin name for the drop-down menu control for the choice field. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 31. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 32. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app

Table 32. Other

Element	Description
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Ajax
- Session
- Security
- Resources

Ajax

The AJAX page allows you to configure AJAX in your web app.It contains the following:

Table 33. AJAX

Element	Description
Enable AJAX	Allows you to enable AJAX for the List Form. AJAX enables the List Form to carry out some operations within the grid without refreshing the whole page. For example, when you sort a column by clicking its column header or change the page by clicking the pager, the List Form only refreshes the data in the grid without causing the whole page to post back. However, there are times when AJAX causes some issues. In this case, you must disable the AJAX capability of the List Form. The following are some known situations where you need to disable AJAX: • In Internet Explorer 6, the data grid will fail to carry out the AJAX operation. If your user base reports this issue, you can disable the AJAX to fix it. • If you use javascript's document.write() method in the Results Body property of the Custom Display, the text that is generated using document.write() will not be rendered after the AJAX operation. This is true even if you do not call the document.write() directly within the Results Body but rather through another javascript function that calls document.write().

Session

The Session page allows you to set or reset the session variable in the web app. It contains the following:

Table 34. Session

Element	Description
Set Session Name	Defines the name of the session variable where: • The edited or newly created item is stored when it is saved. • The item that is being displayed or edited is stored when it is loaded. Use the list form to display a Task and a listview underneath it to display Task Serial Notes. The list form will filter the listview so that the listview will only show the serial notes for the displayed task. When you click the New Item button to create a new task serial notes, you want some of the fields in the task serial notes to be auto-filled with the fields from the current task. In that case, you set the session name in the list form so that the current task is stored in the session and you can consume it in the new form for the task serial notes.
Reset Session Name	Allows you to reset the List Form (set to NULL) the value of the session variable whose name is specified in this attribute. You can specify multiple names by separating them with commas.

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 35. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 36. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Save and Close Button Text Resource ID	Allows you to enter a text resource ID for the Save and Close button.
Cancel Button Text Resource ID	Allows you to enter a text resource ID for the Cancel button.
Delete Button Text Resource ID	Allows you to enter a text resource ID for the Delete button.
Edit Button Text Resource ID	Allows you to enter a text resource ID for the Edit button.
Approve/Reject Item Button Text Resource ID	Allows you to enter a text resource ID for the Approve/Reject Item button.
Check In Button Text Resource ID	Allows you to enter a text resource ID for the Check In button.
Check Out Button Text Resource ID	Allows you to enter a text resource ID for the Check Out button.
Manage Permissions Button Text Resource ID	Allows you to enter a text resource ID for the Manage Permissions button.
Manage Copies Button Text Resource ID	Allows you to enter a text resource ID for the Manage Copies button.
Version History Button Text Resource ID	Allows you to enter a text resource ID for the Version History button.
Workflows Button Text Resource ID	Allows you to enter a text resource ID for the Workflows button.
Alert Me Button Text Resource ID	Allows you to enter a text resource ID for the Alert Me button.
Mark Private Button Text Resource ID	Allows you to enter a text resource ID for the Mark Private button.
Mark Public Button Text Resource ID	Allows you to enter a text resource ID for the Mark Public button.

Table 36. Localization

Element	Description
Indicates Required Field Button Text Resource ID	Allows you to enter a text resource ID for the Indicates Required Field button.
Parent Folder Text Resource ID	Allows you to enter a text resource ID for the Parent folder.
Destination Folder Text Resource ID	Allows you to enter a text resource ID for the Destination Folder.

qListForm Procedures

You can perform the following procedures using qListForm:

- Adding items to a list in SharePoint using qListForm
- Creating and Editing Collapsible Sections

Adding items to a list in SharePoint using qListForm

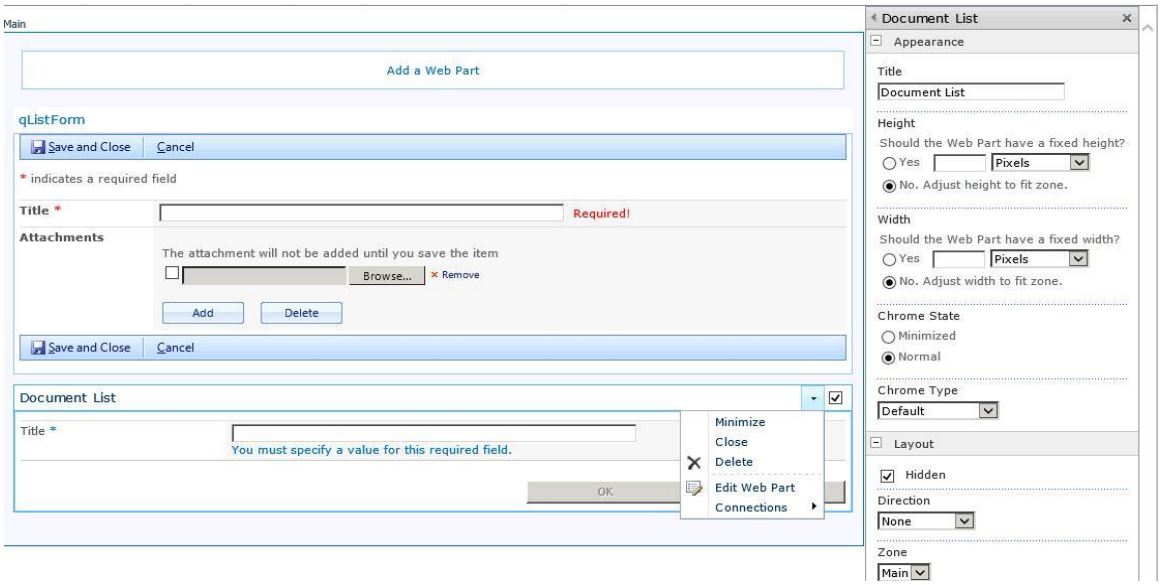
If you want to add items to a SharePoint list using qListForm, you must replace the out-of-box web app with qListForm.

To replace out-of-box SharePoint ListForm with qListForm

1. Create a list in SharePoint, for example Document List.
2. From Modify Form Web apps, select New Default List.
3. Add qListForm.
4. Open **ezEdit**.
5. From Primary Content, enter a title, a site URL, and the name of the list you created in SharePoint.
6. From Form Type, select **NewListItem.** Click **OK**.
7. Hide the out-of-the-box SharePoint List.
   a. From the SharePoint list, select **Edit Web app**.
   b. From the Layout section, click **Hidden**.

NOTE: Do not delete the Microsoft List Form. Doing so may render your list unusable.

Figure 3. Edit Web app



8 Click **Stop Editing** from the SharePoint ribbon.

You are returned to the list in SharePoint. When you click **Add new item**, the QuickApps qListForm opens.

Creating and Editing Collapsible Sections

Collapsible Sections are useful for organizing documents that contain a lot of information since you can use them to collapse one or more paragraphs into a single line. You can expand the paragraphs when necessary by clicking the triangle that appears to the left of a collapsed section. In Lotus Notes, this capability already exists and for users migrating from Notes to SharePoint, this feature allows for seamless migration of this type of text.

There are three editing modes in rich text editor:

- Design – allows you to turn a section of text to collapsible or expanded
- HTML – allows you to work directly with specified markup to turn text into a collapsible section
- Preview – allows you to click to expand or collapse a section of text that is marked up as collapsible text.

  NOTE: Collapsible text does not work in Internet Explorer 7.

To create a collapsible section

1 Select the text that you want to collapse.

2 Click **Apply Section.**

The selected text becomes a collapsible section with a section header with a default title of “New Section”. This title can be changed.

To remove a collapsible section

1 Select the section header.

2 Click **Remove Section**.

Nested sections can be created by allowing a section header and section repeated inside the parent section. The section header can be aligned to the left (default), right, and center.

12

qListView

- Overview
- Configuration Wizard
- qListView Pages
- qListView Procedures

Overview

qListView aggregates data from one or more SharePoint lists and displays the information in a grid.

This Web app has an intuitive user interface that allows you to:

- Configure the most complex aspects of web apps. This user interface is accessed from the Configure item on the web app menu at the upper right corner of the list display.
- Aggregate data from multiple lists from various SharePoint sites. The lists to be aggregated are defined in the Viewed Lists property. You can define the lists that you want to aggregate individually in the property, define it in a centralized list or ask the listview to aggregate lists with a specific name from all the subsites (recursive rollup).
- Display hierarchical data. For example, you can display the information from the Customer list and Sales list in the same view.
- Display data from lists with multiple content types. The listview displays a New button for each content type in the list so that the user can create items with different content types from the listview.
- Ensure the referential integrity of the records in the dependent lists by preventing the deletion of the parent record.
- Divide the data into multiple pages to limit their size and render pages faster. This feature is called Paging. There are two Paging Modes available: Numeric Pager and Next Previous. If the number of rows in a table is more than the specified Page Size, the data is divided into multiple pages and a Pager is displayed at the bottom of the listview to enable the user to navigate to different pages.
- Define a static filter using CAML Filter expression or Complex Filter expression. Both types of filter expression supports time functions and time expression (such as [TODAY]) to filter out data based on a moving time window. This feature is called Data Aging.
- Define the dynamic filter or search criteria using the Find panel. The web app author can define the fields that are shown in this panel using the Searched Fields property.
- Filter a lookup/cross-site lookup field with another lookup/cross-site lookup field.
- Replace the value of a certain field in the list. The user can either mass-replace the value of the selected item or define the condition for the items to be replaced.
- Define the initial static sort expression using the Sort Fields property. The listview can sort the data based on multiple fields.
- Sort the data in the listview by clicking the grid headers.
- Define multiple levels of grouping on the data using the Grouped attribute in the Display Fields property. You can also display the sum or item counts in the group header.

- Support the List Searcher mode in listview. If Turn On List Searcher Mode is set to True, the listview does not display data until the user performs a search.
- Turn off the individual buttons in the toolbar.
- Manage the folders from one or more lists/document libraries in the Folder Panel.
- Display the value of a cross-site lookup field. A cross-site lookup field is similar to the SharePoint lookup field, except that it can look up multiple lists in any workspaces that are accessible from the current site by the current user. The cross-site lookup field is identified by the Display Field Name or Display Format attributes in the Display Fields property. You can use qListForm to populate a cross-site lookup field.
- Access the most common functions for data items, such as View Properties, Edit Properties and Send Email. If enabled, you can access the context menu by right-clicking the entry in the listview.

  NOTE: The Send Email item in the context menu enables the user to send an email with a custom message to one or more recipients. The email message may contain the link to the item, the link to the list or library and in case of document library, the document as an attachment. This feature requires you to put the MailSettings configuration in your web.config file. You need to do this because the Send Email does not use the SharePoint email capability due to its limitation of sending a maximum of 1000 characters.
- Change the URL of the new form, edit form, and display form using the Viewed Lists property.
- Show or hide the listview based on the site group membership of the currently logged in user.
- Display the data in virtually any format that can be achieved with JavaScript and HTML. With this feature, you can create many types of custom reports on the data.
- Support dynamic language switching and Flash and JavaScript (HTML5)
- Export data to Microsoft Excel in conjunction with qExcelViewer.
- Provide data from the whole listview to another web app using IWebPartTable interface.
- Consume a filter from another web app that implements IRowProvider or IFilterProvider interface.

  NOTE: The IFilterConsumer interface is obsolete. It is provided here only for backward compatibility reason. When you establish the web app connection, this interface is labeled Consume Filter From (Obsolete) in the web app Connections menu. Use the IWebPartParameter consumer implementation that is labeled with Get Filter From.

  The listview is a consumer for the IWebPartParameter interface. This capability enables the chart view to consume a filter from another web app that implements IWebPartRow or IWebPartParameter interface.

  The IWebPartParameter consumer implementation is labeled with Get Filter From in the web app Connection menu. This interface cannot be connected with the obsolete IFilterProvider or IRowProvider implementation. Do not connect this new interface with the old interface that is marked obsolete

Configuration Wizard

qListView uses a configuration wizard to walk you through basic configuration tasks. For more information on using the Configuration Wizard, see Configuring Basic Settings using the Configuration Wizard on page 218.

qListView Pages

You can configure this web app through its pages that are accessible through ezEdit. qListView contains the following pages:

- Content Page
- Behavior Page

- Appearance Page
- Advanced Page

Content Page

The Content page contains the following:

- Primary Content
- Filtering
- Search/Filter/Replace Panel
- Sorting/Paging
- Custom Display

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Viewed Lists	See Viewed Lists on page 186 for more information.
Display Fields	See Display Fields on page 190 for more information.
Child View Display Fields	Defines the fields that should be displayed in the view for the child records. See Display Fields on page 190 for more information.
Expand Child View on Load	Determines if the child view is expanded or collapsed when the listview is loaded for the first time. By default, this property is set to false which means the hierarchical listview does not expand the child view. If set to true, the entire child view expands when the listview is loaded for the first time.
Enable New Item Link in Child View	Allows you to display the New Item link in the child view.
ID HTTP Parameter Name	Allows the qListForm and several other web apps to an HTTP Parameter called ID to identify the item to be displayed or edited. This HTTP Parameter is usually generated automatically by the viewer web app, such as qListView or qCalendarView, when you select an item to be displayed or edited. **NOTE:** If qListForm is placed on a web app page that is contained within a document library, the page will generate an error if the value of the ID HTTP Parameter is bigger than the number of pages within the document library. To prevent this error from happening, rename the ID HTTP Parameter. By default, the value of this property is "ID". You can change the value of this property to something else, such as LID. In that case, when you select "View Properties" or "Edit Properties" in the context menu, the URL of the display or edit form becomes: http://mysite.com/EditFormURL.aspx?LID=xxx Set the same property in the qListForm to the same value.

Viewed Lists

This property defines the following:

- The lists whose data is viewed in the listview and the manner it is aggregated. There are a few ways that you can aggregate information from multiple lists in the listview. First, you can define the lists to be aggregated one by one. Second, you can define the site URL for the aggregated lists in a Rolled-Up list. Third, you can aggregate the information from lists with a particular name from all the subsites (recursive rollup).
- The parent list and the child list in the hierarchical listview. You can only define one child element per list. The hierarchical listview does not work when you aggregate the information using the Rolled-Up list and recursive rollup.
- The Dependent Lists for each list. If the Dependent Lists information is provided, the listview checks whether there are child records in the Dependent Lists when the user tries to delete items from the listview. If there are any, the listview will not delete the selected items.

The Lists element can contain one or more List elements. The listview will aggregate the information from all of the List elements that you specify. To define the hierarchical listview, each List element can contain one child List element.

The following are the elements for the Viewed List attribute.

Table 2. Viewed List

Element	Description
Advanced Mode	Turn on if you want to edit Viewed Lists in XML format. XML will look like the following: <Lists> <List SiteUrl="siteUrl" ListName="listName" IncludeSubsites="true/false" IncludeThisSite="true/false" IsRollupList="true/false" SiteUrlFieldName="fieldName" RolledUpListName="listName" TargetUrl="targetUrl" SetSessionName="sessionName" ResetSessionNames="name1, name2" NewFormUrl="URL" EditFormUrl="URL" DisplayFormUrl="URL"> <!-- To define a child list in a hierarchical listview, you can add List element in the parent List element. You can only have one child list. --> <List SiteUrl="siteUrl" ListName="listName" ParentKeyFieldName="parentKeyFieldName" ChildKeyFieldName="childkeyFieldName" TargetUrl="targetUrl" SetSessionName="sessionName" ResetSessionNames="name1, name2" NewFormUrl="URL" EditFormUrl="URL" UseUploadFormInLayoutsFolder="true/false" DisplayFormUrl="URL"> <!-- To define dependent lists, add a DependentLists element inside the List element --> <DependentLists> <List SiteUrl="siteUrl" ListName="listName" KeyFieldName="keyFieldName" /> <List SiteUrl="siteUrl" ListName="listName" KeyFieldName="keyFieldName" /> </DependentLists> </List> <List ...></List> <List ...></List> </Lists>
Site URL	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path. **NOTE:** If you want to connect the listview with another Web app in Microsoft SharePoint Designer, the SiteUrl property must contain an absolute URL. We recommend that you keep all URLs in the Web app configuration relative to ensure site portability. If you must, use an absolute URL temporarily, make the connection, and then change the URL to a relative one.

Table 2. Viewed List

Element	Description
List Name	Allows you to enter the name of the SharePoint list that is edited or displayed. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list, you can use a single dot (.) as the list name. **NOTE:** This only works if the qListView is contained in the AllItems.aspx. For example, if you are replacing the Microsoft List View in the AllItems.aspx of the Tasks list and you use a single dot as the ListName attribute, the ListName attribute of the qListView is set to Tasks. If you want to save the list as a template and then add it somewhere else, the name of the new list might not be Tasks and using this relative list name will automatically pick up the new list name for the view.
Include Subsites	If set to true, the listview searches all the subsites for a list whose name specified in the ListName and aggregate the information from those list. **NOTE:** If you have many subsites, the information may take a long time to aggregate. Use this attribute if you have only a small amount of subsites. You must test this feature in your environment to see whether or not the response comes back in a reasonable amount of time and the request does not time out.
Include This Site	Used in conjunction of the IncludeSubsites attribute. If you set this property to true, the list in the current site will not be aggregated by the listview. The current site is the site whose URL is specified in the SiteUrl attribute.
Is Rollup List	Indicates whether or not the list specified by the SiteUrl and ListName attributes contains the Site URLs of the lists to be aggregated instead of the data to be aggregated. If you set this to true, the list specified by the SiteUrl and ListName must have a field that contains the URL information. By default, the name of that field is Site URL. If you use different field name, specify the name using the SiteUrlFieldName attribute.
Rolled Up List Name	Used in conjunction with the IsRollupList property, indicates the name of the lists to be rolled up if you set the IsRollupList to true. If you want to aggregate more than one list from each site specified in the rollup list, you can define more than one List elements with the same rollup list, but different RolledUpListName.
Site URL Field Name	Used in conjunction with the IsRollupList property, indicates the field that contains the Site URLs of the lists to be aggregated. This attribute is optional if the field name is Site URL. **NOTE:** The Site URL field must be a single line of text field.
Active Field Name	Used in conjunction with the v IsRollupList property. The rollup list may contain a Yes/No field to indicate whether or not a particular site should be included in the rollup. This property is optional if the name of this field is Active. **NOTE:** The Active field must be a Yes/No field.
Reset Session Names	Resets (sets to NULL) the value of the session variables whose name is specified in this attribute. You can specify multiple names by separating them with commas; for example TaskSession, IssueSession. You can reset the session name if a list has one or more tasks associated with it. In addition to storing the selected list in the session, you may store the dependent task information in the session as well. This means that every time you store a new list into a session, you need to reset the dependent task information from the session as well.
Set Session Name	Defines the name of the session variable where the listview stores the item whose column is being clicked by the user. The user can click the item if one of the LinkTo, LinkToTarget or the LinkToSource attributes in the Display Fields property is defined. This attribute is usually used if you have another Web app (such as the qListForm) that can consume the stored values from the session. You can set the session name when you want to consume the item from a session variable in a qListForm later.

Table 2. Viewed List

Element	Description
Target URL	When the LinkToTarget attribute of a specific column is set to true (in the Display Fields property), the data in that column becomes a hyperlink to the URL specified in this attribute. **NOTE:** If you using Advanced Mode, the TargetUrl can use the <%field name%> field replacement expression. But you must use the encoded form of the < and > characters, which are < and > respectively. Use the LinkToTargetUrl attribute if you want each list to have a different URL; for example, when you want to aggregate multiple lists from the same workspace and connect a certain column to the display form of the list. In that case, the URL to the display form of each list is different.
Create Document Form URL	When specified, the New button (and all the buttons for specific content types underneath it) will redirect the user to the URL specified by this attribute. Normally, the page pointed to by CreateDocumentFormUrl will contain a qListForm to create the new document. For more detail about this, see the Create Document section of the qListForm chapter. CreateDocumentFormUrl will affect all types of list, not just document library. There is no difference between CreateDocumentFormUrl and NewFormUrl when the list is not a document library. You can specify either to affect the target URL for the New button. But if both are specified, the CreateDocumentFormUrl will take precedence. When the list is a document library, CreateDocumentFormUrl will affect the New button and the NewFormUrl will affect the Upload button.
New Form URL	Indicates the URL where the form to create a new item resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when one of the New buttons in the toolbar is clicked. If not defined, the user is redirected to the NewForm.aspx of the list (or Upload.aspx for the document library). Redefining the New Form URL is useful if you have different way of creating an item depending on the current view. For example, in the view for external vendor, you may want to give them a new form that does not contain all the fields in the list. **NOTE:** The Source HTTP parameter is automatically appended to the New Form URL during redirection. This attribute is usually used in conjunction with the qListForm Web app.
Edit Form URL	Indicates the URL where the form to edit an item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the user clicks Edit Properties in the Context Menu. If not defined, the user is redirected to the EditForm.aspx of the list. Redefining the Edit Form URL is useful if you have different ways of editing an item depending on the current view. For example, in the view for external vendor, you may want to give them an edit form that does not contain all the fields in the list. **NOTE:** The ID and Source HTTP parameters are automatically appended to the Edit Form URL during redirection. This attribute is usually used in conjunction with the qListForm Web app.
Display Form URL	The URL where the form to display an item in the list resides. The URL is relative to the Site URL of the list. The user is redirected to the specified URL when the user clicks View Properties in the Context Menu. If not defined, the user is redirected to the DisplayForm.aspx of the list. Redefining the Display Form URL is useful if you have different way of displaying an item depending on the current view. For example, in the view for external vendor, you may want to give them a display form that does not contain all the fields in the list. **NOTE:** The ID and Source HTTP parameters are automatically appended to the Display Form URL during redirection. This attribute is usually used in conjunction with the qListForm Web app.

Table 2. Viewed List

Element	Description
Launch Form In	Defines how the form pages (NewForm, EditForm, DisplayForm) associated with a SharePoint list are launched. There are 3 different options: Dialog, New Window, and Current Window. This property defaults to <Empty> in which case the form dialog obeys the settings under List Settings/Advanced Settings. **NOTE:** If you select Dialog, you can configure the dialog width and height.
Use Upload Form in Layouts Folder	Allows you to link to the Upload.aspx page in the _Layouts folder instead of the Upload.aspx page in the Forms folder of the document library. **NOTE:** This option was useful with SharePoint 2007. It is still available for legacy purposes, but you no longer need to enable it.

The List element for the child list must contain these additional attributes:

Table 3. List element for child list

Element	Description
Parent Key Field Name	Allows you to enter a name in the field in the parent list that will act as the filter for the child records. In other words, this is the primary key field in the parent list.
Child Key Field Name	Allows you to enter a name in the field in the child list that is filtered by the value from the parent key field. In other words, this is the foreign key field in the child list.

The List element can contain only one DependentLists element. The DependentLists element can contain one or more List element. The List element inside the DependentList can contain the following attribute:

Table 4. List element inside Dependent Lists

Element	Description
Site URL	Allows you to enter the URL to the site that contains the dependent list.
List Name	Allows you to enter the name of the dependent list. The list name is case sensitive. This property along with the SiteUrl defines the dependent list.
Key Field Name	Allows you to enter the name of the field in the dependent list that contains the ID of the parent item. In another word, the KeyFieldName is the foreign key in the dependent list. The key field is usually a single line of text that contains the parent item ID or a cross-site lookup field to the parent list. The name is case sensitive

Display Fields

This property defines the fields that should be displayed.

This property is optional if the properties in the Custom Display section is specified. In that case, the default display is turned off and the custom display is used. You can also combine the custom display with the Display Fields. A good example is when you want to display data in a grid and provide a summary of the data or a disclaimer using a custom display.

The Display Field contains the following elements:

NOTE: In addition to the fields in the list, the listview recognizes several special fields. You can display the following fields, group the fields or use it as a field replacement expression in the CalculatedValue attribute.

- Item Location — The format of the Item Location value is ListName in SiteUrl. This field is useful when you aggregate multiple values into the listview to tell you where a particular item comes from.
- Workspace URL — This field contains the URL of the site that contains the containing list.
- List Name — This field contains the name of the containing list.
- Folder — The server relative URL of the folder that contains this item.

- File Path — The complete URL for a file in the document library. This variable is only available for document library.

Table 5. Display Field

Element	Description
Advanced Mode	Turn on if you want to edit Display Fields or Child View Display Fields in XML format. In XML, Displayed Fields look like: <Fields LookupThresholdControlSettings=”On”> <Field Name="fieldName" [optional attributes]/> <!-- For a grouped field, you can specify one or more aggregated values --> > <Field Name="fieldName" Grouped="true" SortDirection="asc|desc" GroupExpanded="true|false"> <Aggregate Function="aggregateFunction" FieldName="fieldName" Text="text"/> <Aggregate Function="aggregateFunction" FieldName="fieldName" Text="text"/> </Field> </Fields>
Query All Fields	Controls how Web apps behave in relation to the List View Lookup Threshold in SharePoint Resource Throttling. The options are: • Default — uses the level set in the Configuration Editor. If you have selected Query All Fields check box in the Configuration Editor, the Web app will query only those fields that are not included in the List View Lookup Threshold. If the Query All Fields check box is cleared, the Web app will query all fields. • On — If the Web app level is On, the Web app queries all fields in lists, except Lookup fields. • Off — If the Web app level is Off, the Web app queries all fields in lists, including Lookup fields. • Explicit — If the Web app level is Explicit, the Web app queries only those fields selected in the Display Fields. This option renders the best performance for your Web app.
Add Field	Allows you to add custom fields to be displayed in the web app. **NOTE:** If you are using a CalculatedValue or FixedValue attribute, you must first add and configure at least one custom field.
Field Name	Indicates the name of the field selected. If you select Custom, you can change the field name. **NOTE:** If you configure Calculated Value, Fixed Value, Display Field Name, and Display Format, ensure the custom field name does not contain spaces. If the name contains spaces, an error message is returned.
Title	Indicates the title of the field. This is useful if the real field name is too long and you want to abbreviate the title in the field header, or if you simply want to display a different title in the field header. If this attribute is not specified, the value specified in the Name attribute is used in the field header. For example: <Field Name="Created By" Title="Author" />
Title Resource ID	Indicates the identifier in the Resource List that is used as the title of the field. The TitleResourceID and the current cultural setting (identified with the Culture HTTP parameter) is used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default Title is used.
Width	Indicates the width of the field. You can specify the value in pixels (Width="20px") or percentage (Width="20%"). We recommend leaving at least one field where you do not specify this property. That field will take up the remaining width of the page. For example: <Field Name="Subject" Width="100px" />

Table 5. Display Field

Element	Description
Align	Indicates the horizontal alignment for the field. The values is one of the following: left, right, or center. For example: <Field Name="Created" Align="right" />
Item Style	Indicates the style for the item in the row. You can define the style as you would in a CSS class; for example, color: red; font-weight: bold
Item CSS Class	Indicates the distinct style for the column and you already have defined the style in an external CSS file.
Fixed Value	Fixed Value appears if you have selected Custom as a Display Field. This allows you to display text as a value for this field. This is useful when you want static text such as Edit displayed in a field. You can then make this text a hyperlink using either the Link To, Link To Target or Link To Source attributes. **NOTE:** If you are using Advanced Mode, you can configured Fixed Value as in the following example: <Field Name="EditColumn" FixedValue="Edit" LinkTo="Lists/ListName/EditForm.aspx?ID=<%ID%>" /> To display an icon instead of a text, you can do the following (it assumes that you have pencil.gif in the images folder in your site: <Field Name="EditColumn" FixedValue="<img src="images/edit.gif" border=0>" LinkTo="Lists/ListName/EditForm.aspx?ID=<%ID%>" />

Table 5. Display Field

Element	Description

Calculated Value	Calculated Value appears if you have selected Custom as a Display Field.
	NOTE: If you are using Advanced Mode, this attribute recognizes the field replacement expression <%Field%> to refer to a field. The listview will replace the field replacement expression with the value of the field for each row of data. You must use the encoded form of the < and > characters, which are < and >, respectively, unless you type in the value in the Display Fields editor in the List View Editor, where the Editor will encode the characters automatically for you.
	You can use this attribute to:
	• Display the values from multiple fields in one grid column. For example, to display a full name, you can concatenate the first name and last name as follows:
	<Field Name="CalculatedFullName" Title="Full Name" CalculatedValue="<%First Name%> <%Last Name%>" />
	• Reformat the values of another field, using the Display Format on page 14. You can specify the Display Format in the Field replacement expression as follow:
	<%{DisplayFormat}FieldName%>
	For example, if you have a Date Time Field called "Start Date" and you want to display it in a short date format, you can use the following field replacement expression: <%{0:d}Start Date%>. To see the available display format, see Display Format on page 14.
	• Format the display of a certain column in the grid. For example, you can display the Status of your project with different colors depending on its value. In order to do this, you can write a JavaScript function and then call that JavaScript function using this attribute.
	<Field Name="CalculatedProjectStatus" Title="Status" CalculatedValue="<script>FormatProjectStatus('<%Status%>');</script>" />
	The above example assumes you have a JavaScript method called DisplayProjectStatus defined on your page or in a JavaScript file that is included in your page. That JavaScript method looks like:
	<script language="javascript"> function FormatProjectStatus(status)
	{
	var displayedStatus =
	status; if (status = 'Behind')
	{
	displayedStatus = '' + status + '';
	}
	return displayedStatus;
	}
	</script>
	You can format the value of the field in virtually any way you want..
	NOTE: You can only call one JavaScript function in the CalculatedValue attribute and the JavaScript function must return a string.

Display Field Name	If specified, indicates a cross-site lookup field. It contains the name of the field in the cross-site list that contains the value to be displayed. The field name is case sensitive. A cross-site lookup field enables you to lookup a list that resides in another site, another site collection, or another web application as long as it is in the same configuration database. You need the qListForm Web app to create a cross-site lookup field.

Table 5. Display Field

Element	Description
Display Format	If specified, indicates a cross-site lookup field. It contains the format of the value that is displayed. Define this attribute if you want to display values from multiple fields. **NOTE:** If you are using Advanced Mode, you can use the field replacement expression <%Field%> to refer to a field. You must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. **NOTE:** For more information, see Display Format on page 14.
Show User Groups	Allows you to show groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Hide User Groups	Allows you to hide groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Hyperlink Field Target	If this field is a SharePoint Hyperlink or Picture field, indicates the target window for the hyperlink. For example, use "_blank" if you want to open the target URL in a new window. If this attribute is left blank, the target URL will open in the current window. This attribute will not affect the hyperlink column created with the LinkTo, LinkToSource or LinkToTargetURL attributes.
Link To	Indicates that the list view turns the field into a hyperlinked column to the specified URL. The URL can be an absolute or relative URL. **NOTE:** If you are using Advanced Mode, the LinkTo can use the <%field name%> field replacement expression. You must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. If you use a relative URL, the URL is appended to the site URL of the target site. For example, specify "Lists/TeamDiscussion/EditForm.aspx?ID=<%ID%>" as the value of this property. If you click a customer record that comes from the Customers list in Workspace A, whose site URL is "http://mydomain/sites/mysite", you are directed to http://mydomain/sites/mysite/Lists/TeamDiscussion/EditForm.aspx?ID=23 (assuming you click the discussion with ID=23).
Link To Target	Allows the list view to make the field value a hyperlink to the URL specified in the Target Url attribute in the Viewed Lists property. The LinkToTarget URL is used when you aggregate lists with different names. You can specify a different TargetUrl for each list in the Viewed Lists property and the list view will redirect the user to the correct URL depending on the list from where the clicked item comes.
Link To Source	The list view will make the field value a hyperlink to the URL specified in the Source HTTP parameter of the current request. For this option to work, the current page URL must look like: http://.....?Source=.... Use this element when the URL for the hyperlink is dynamic. This could be because it contains dynamic parameters or the URL is different depending on the referral page. Also, when you want to make the URL in the link dynamic. In that case, you can pass in the URL for the link into the HTTP parameter of your page.
Open Link In	Allows you to define how the Link To Field opens. There are 3 different options: Dialog, NewWindow, and CurrentWindow. **NOTE:** If you select Dialog, you can configure the dialog width and height. **NOTE:** If you are using Internet Explorer 9, the "NewWindow" option requires the user to set the following: Internet Options | General |Tabs| Settings| When a pop-up is encountered | 'Always open pop-ups in a new window'.
HTML Encode	If selected, the value in the field is encoded first prior to being displayed. You need to set this to true if this field contains values that are surrounded by < and >, such as <abc>. Without the encoding, the value will not be displayed properly.

Table 5. Display Field

Element	Description
Do Not Render as Hyperlink	If selected, the value of fields is rendered as plain text instead of hyperlink.
Grouped	Allows you to group data by: • Sort Direction — This attribute determines whether the values in the header of the grouped field must be displayed in ascending or descending order. The options are asc for ascending order or desc for descending order. The default value is asc. • Group Expanded — If set to true, the group is initially expanded. Otherwise, it is collapsed. If not specified, the default value is false. **NOTE:** Grouping is not supported on any field that has "Allow Multiple Values" enabled.

The Field element can contain one or more Aggregate elements if its Grouped attribute is set to true. The following are the attributes of the Aggregate element:

Table 6. Aggregate element attributes

Element	Description
Text	Allows you to enter the text that will precede the aggregated value when displayed.
Aggregate Function	Allows you to select a function.
Field Name	Allows you to enter a field name where the aggregation is performed.

Filtering

The Filtering page allows you to use CAML filters to dynamically filter records or use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 7. Filtering

Element	Description
CAML Filter	Allows you to specify the CAML (Collaboration Application Markup Language) query expression to filter your data. CAML is an XML-based query language. The CAML Filter will only be applied to the data. The filter will not be applied to the responses. For more information, see CAML Filters on page 19.
CAML Filter for Folders	Allows you to filter the folders that are displayed in the folder panel. This is useful if you maintain the metadata on your folders and want to display folders with specific properties. For more information, see CAML Filters on page 19.
Apply CAML Filter on First Level Folder Only	Allows you to apply the CAML Filter for folders only on the first level folder. By default, the value is false. If set to true, the listview applies the CAML Filter for folders on the first level folder (that is, folders located directly under the root folder) but will not apply the CAML Filter on the subsequent level.
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

Search/Filter/Replace Panel

The Search/Filter/Replace Panel allows you to define the panels for search, filter, and replace in the web app. You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

The Search/Filter/Replace Panel contains the following elements:

Table 8. Search/Filter/Replace Panel

Element	Description
Searched Fields	See Searched Fields on page 197.
Fields Excluded from Replace Panel	Defines which fields from the list must be excluded from the Field Name drop-down menu in the Replace panel. The Fields element can contain one or more Field elements. The Field element can contain one attribute, which is the Name attribute. The Name attribute is the display name of the field to be excluded from the Replace panel. **NOTE:** Turn Advanced Mode on if you want to edit this field in XM L format. This property is an XML in this format: <Fields> <Field Name="Field1"/> <Field Name="Field2"/> </Fields>
Show Include Sub Folders Check Box In Search Panel	Determines whether the Include Sub Folders check box is displayed in the Filter panel. When you select this property and the Show Folders Button property in the Toolbar Appearance page, the Include Sub Folders check box will appear as the first row in the search/Filter panel. **NOTE:** Select this element when the folder panel is enabled and the view and the search are limited only on the currently selected folder. The Include Sub Folders check box is useful if you want to include the subfolders of the current folder in the search.
Show Search All Fields Control in Search Panel	Determines whether the Filter panel should display the control to search all fields in the list. When set to true, the following control is shown in the Filter panel: The Search All Fields Control allows you to do the following: • Combine the search all fields functionality with other search criteria that has been entered for specific fields. • When the search all fields criteria is entered, the Filter panel will construct a filter expression with the "Contain" operator for the following fields in the list: Single line of text, Multiple lines of text, Choice, Lookup (only Lookup to a Single Text field and Lookup to a Number field are supported), Person or Group and Hyperlink or Picture. If the list contains a Lookup to Number field, Search All Fields will not work for negative numbers for that field. The Filter panel will use the entire keywords as the value to be searched. Therefore, if you enter "High Priority" in the search all fields control and perform the search, it will find the following sentence: 'This is a high priority task' However, it will not find the following sentence: 'The priority is not always high'
Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.

Table 8. Search/Filter/Replace Panel

Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.
Turn On List Searcher Mode	Allows the user to perform a search before the listview display any data.

Searched Fields

This property defines which fields are displayed in the Filter panel. If defined, the listview displays Filter or Search menu items under the Actions button in the toolbar.

NOTE: If the item count in the list exceeds the List View Threshold in SharePoint (see, http://office.microsoft.com/en-us/sharepoint-foundation-help/manage-lists-and-libraries-with-many-items-HA010377496.aspx), the search will fail. Set the filter settings to lessen the item count, and set the search fields in the index. If the returned items, based on the search, return too many results, the search will still fail.

NOTE: For the Number type field, the "Contain" operator is not supported for negative numbers, and is not available for the following fields: Lookup to DateTime field, Lookup to Calculated field, and Lookup to ID field.

To disable the search feature in the listview, leave this property blank.

The Searched Fields element can contain multiple Field elements:

Table 9. Searched Fields

Element	Description
Advanced Mode	Turn on if you want to edit Searched Lists in XML format. This property is an XML string in the following format: <Fields> <Field Name="fieldName" [optional attributes]/> <!-- To search a cross site lookup field, use one of the following two formats --> <Field Name="fieldName" DisplayFieldName="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> <Field Name="fieldName" DisplayFormat="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> </Fields>
Field Name	Indicates the element you are editing.
Title	Displays title for the field. The value can be a plain string or an encoded HTML string.
Description	Describes the field. This is useful if you want to give a short instruction or explanation about the field.
Default Value	Defines the default value for the field. You can define a text, a number or a date. A date value must be specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ, for example: midnight of February 14, 2002 is 2002-02-14T00:00:00Z.
Default Operator	Defines the default operator for the field.
Fixed Operator	Defines the operator for the field. If specified, the drop-down menu to select the operator for this field is turned off.

Table 9. Searched Fields

Element	Description
Use People Editor	Enables you to enter any user information that is in your directory service. If you set this to True and the field to be searched is a People and Group field, the Filter panel will show the People Editor control for entering the search criteria.
Column Count	Defines the number of columns for the options in a multi-choice field or in a choice-and-lookup field if the Enable Multi Choice attribute is set to True. This is useful in case your choice or lookup fields have too many choices and you want to break the choices into several columns to minimize the vertical scrolling in your form.
Enable Multi Choice	Allows you to select multiple options for the choice-and-lookup field. Therefore, the user can specify a condition like "A or B". This attribute is ignored by other field types. To search a cross-site lookup field, you must specify one or more List elements inside the Field element. The cross-site lookup field is displayed as two drop downs.
Sort Field	Defines the field that is used to sort the value in the drop-down menu. The field name is case sensitive.
Sort Order	Allows you to sort the values in ascending or descending order.
AutoPostBack	Use the Filter panel to refresh when the user changes the selection in a lookup field or cross-site lookup field. You need to set AutoPostBack to true if this field is a lookup or a cross-site lookup field and it is being used to filter another lookup or cross-site lookup field in the Filter panel.
Parent Field	Defines another lookup or cross-site lookup field that is used to filter this field. The parent field must be listed before this field in the XML property.
Parent Filter Field Name	Defines the field in the parent field that is used to filter this field. It is the primary key in the list that is used in the lookup or cross-site lookup field.
Filter Field Name	Defines the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.
Display Field Name	Shows the name of the field whose value is displayed in the drop-down menu. The field name is case sensitive. Use this attribute instead of the Display Format attribute if you only want to display a single field in the drop-down menu.
Display Format	Indicates the format of the value that is displayed in the drop-down menu. Define this attribute instead of the Display Field Name attribute if you want to display multiple fields in the drop-down menu. You can use the field replacement expression <%Field%> to refer to a field. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Searched Fields editor in the List View Editor, where the Editor will encode the characters automatically for you.
Site URL	Indicates the Site URL of the field. You can use an absolute or relative URL.
List Name	Indicates the name of the List. The field name is case sensitive.
Site Name	Indicates the name of the site specified in the Site URL. This is used in case you have multiple lists. In this case, the first drop-down menu to select the list will display as "List Name in Site Name". You can use any name for the Site Name. It does not have to match the real title of the Site.

Sorting/Paging

The Sorting/Paging page allows you to define the sorting criteria and paging type and size in the web app.

The Sorting/Paging page contains the following elements:

Table 10. Sorting/Paging

Element	Description
Sort Fields	Allows you to define the initial sorting criterion for the data. This is the syntax for this property: FieldName1 [SortDirection], FieldName1 [SortDirection] SortDirection is either ASC (ascending order) or DESC (descending order). The FieldName and the SortDirection are case sensitive. If the SortDirection is not specified, ascending order is assumed. For example: First Name ASC, Last Name DESC, Company **NOTE:** You cannot define criteria to sort custom fields. To sort custom fields, click the column in qListView. You can sort custom fields under the following circumstances only: • the custom field search data total count is less than MaxQueryRowCount's value (by default, this value is 2000) • the custom field is only a calculated value • the custom field's calculated value is not written in JavaScript code
Child View Sort Fields	Defines the initial sorting criterion for the data in the view for the child records. This property has the same syntax as that of the Sort Fields property.
Disable Multi Column Sorting	Allows you to sort the listview one column at a time. This means that if the user clicks a column header to sort the data by that column, any previous sort with another column is cancelled. The default value of this property is false, which means the user can sort using multiple columns.
Paging Mode	Allows you to select the type of pager that is displayed at the bottom of the listview if the items must be divided into multiple pages.
Page Size	Allows you to set the maximum number of rows that is displayed in one page. If the number of rows is larger than the Page Size, the data is divided into several pages. You can navigate the pages using the Pager displayed at the bottom of the listview.

Custom Display

The custom display properties lets the page designer customize the display of the data using HTML and JavaScript. The custom display appears after the default display (if the Display Fields property is defined).

Three properties define the custom display. The example in each property illustrates how to display the FullName field of the search results in an HTML table.

Table 11. Custom Display

Element	Description
Results Header	Allows you to set the value of this property that is rendered once before the Results Body. This property is a good place to include any JavaScript file, defining any JavaScript function, or define any HTML elements for the header. Example: These are the customers that match your search criteria. <table><tr><th>Full Name</th></tr>
Results Body	Allows you to set the value of this property that is repeated once for every row in the search results. You can use the <%field name%> field replacement expression to refer to the value of a certain field. Example: <tr><td><%FullName%></td>
Results Footer	Allows you to set the value of this property that is rendered once after the Results Body. Example: </table>

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Views
- Email Notification

Actions

This property enables you to define additional buttons in the toolbar or context menu item in the context menu. You can program that button or context menu item to do a series of actions. The listview supports some built-in actions. However, you can write your own custom action using one of the .NET languages, compile it, and call it by the listview. See Custom Action Help on page 375 to see how to write your own custom actions.

NOTE: The toolbar button affects all the items that are selected in the listview. The context menu item affects only the item that is being right-clicked regardless of how many items are selected in your listview.

Here are some ways that you can use this functionality:

- Add a custom toolbar button called "Assign All to Me" that will assign all of the selected tasks in the listview to me.
- Add a custom toolbar called "Approve" that will change the status of all of the selected expense items to Approved.
- Create a custom context menu item called "Publish" that will move the right-clicked document into another document library.
- Create a custom context menu item or toolbar item to start a workflow.
- With the ability to write your own custom action, you can virtually do anything to the data when you click the custom button that you define.

The Actions page contain the following elements:

Table 12. Actions

Element	Description
Custom Actions	For more information, see Custom Actions on page 200.

Custom Actions

NOTE: The custom action in the listview does not support the Save action.

The Custom Actions element contains one Toolbar element and one Context Menu element. These elements can contain one or more Action Item elements. You can associate the Action Item with one or more Action elements. The Action element define a certain operation that is carried out by the action item when it is clicked.When you add an action item, you can configure the following:

Table 13. Custom Actions

Element	Description
Advanced Mode	Turn on if you want to edit Custom Actions in XML format. Here are the schema of this property: <CustomActions> <Toolbar> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PromptTextResourceID=”promptTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </Toolbar> <ContextMenu> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PromptTextResourceID=”promptTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </ContextMenu> </CustomActions>
IsSeparator	Allows you to set the item as a separator.
ID	Allows you to enter a unique ID that will identify the item. Use a descriptive identifier to configure the action item with the editor.
Text	Allows you to enter how the action item is displayed in the toolbar.

Table 13. Custom Actions

Element	Description
Text Resource ID	Allows you to define this property if you support a a multi-lingual site. This attribute defines the identifier of the string in the Resource List that is used as the title of the Web app. The Text Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the value in the Text attribute is used.
Prompt Text	Allows you to prompt the user to click the toolbar button or the context menu item.
Prompt Text Resource ID	Allows you to define this property if you support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the title of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Access Key (Toolbar Only)	Allows you to define one character from the Text attribute that becomes the access key to this toolbar button or context menu item. For example, if you define a letter T as the access key, you can press ALT+T and the browser will put the focus on this button or context menu item. If there are multiple elements on the page with the same access key, you can repeat ALT+T repeatedly until you get the focus on this toolbar button or context menu item.
Position	Allows you to set the position of the button in the toolbar. The index starts with 0.
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot

When you add an action, you can configure the following:

Table 14. Action

Element	Description
Name	An optional element which allows you to identify a given action in order to access it from another action. You can refer to this action from the GoToURL action and from ICustomActionEx Interface.

Type	Allows you to determine the type of the action. Here are the options:
	• Delete — deletes the item.
	• Move — allows you to move the item to a target. You must specify a Target Site URL, Target List Name, and Target Folder. This action only works for document in a document library.
	• Copy — allows you to copy the item to a target. You must specify a Target Site URL, Target List Name, and Target Folder.
	• GoToURL — redirects the user to a specific URL. You must specify the URL and where you want the URL to open. If you select to open the URL in a dialog, you can configure the dialog width and height. You must specify the following parameters:
	  • Input - the current user information as the value of the parameter
	  • Session - the name of the session variable where the value comes from when the source is set to Session
	  • HttpRequest - the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter.
	  • ListItem - the value of the parameter is a list item or row
	  • RowFromAnotherWebApp — the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. There are two types of action that can produce an output: an action with Type of ExecuteOperation, and an action with Type of Custom that points to custom action implementation of ICustomActionEx Interface. You do that by defining the SourceName attribute of the action. This is the syntax of the SourceName attribute when you use ResultFormAction source: <ActionName>.<ResultType>[.Name], where ActionName refers to the Name attribute of the action that produces the output, ResultType can be OutParameter (if the action result is returned through one of the out or inout parameter) or RawData - (if the action result is returned as an object). Name is optional. It further designates the object we want to use for the parameter. You do not have to specify the Name when the ResultType is RawData. However, if the ResultType is OutParameter, this name specifies the name of the out or input key value pair.
	  • ResultFromAction - the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. You must define a source name (where in the source you want to get your information from), name (the name of the parameter that is appended to the URL you specified), and Session (the name of the session variable where the value comes from when the source is set to Session)
	• GoToSource — redirects the user to the URL specified in the Source HTTP parameter. The URL to the page must look like: http://...?Source=URL for this option to work.
	• StartWorkflow — starts the specified workflow in the Workflow Name drop-down field. You must select a Workflow name.
	• ReturnToMasterChart — returns the user to the master chart page. You use this action type if this web app is located in the drill down page.
	• Custom — implements your own custom action and call it with this action type. Enter a Class name that implements the ICustomActionEx or ICustomAction interface, or select a class from the drop-down list, if available.

Views

The Views page allows you to set views so the user to view the data in Excel or a chart.

The Views page contains the following elements:

Table 15. Views

Element	Description
Search Session Name	The listview will store the search criteria, last selected folder, sort criteria, and other listview dynamic settings in the session variable with this name. The listview also use the Search Session Name to communicate those settings to qExcelViewer and qChartView located in the page whose URL specified in the Excel Viewer URL or Chart Viewer URL property, respectively. Therefore, the Search Session Name in those web apps must be set to the same value as the session name in this listview.
Excel Viewer URL	Allows you to set the URL of the page that contains qExcelViewer. If this property is specified, the Export to Excel button is displayed in the toolbar. The target page specified by the URL must contain qExcelViewer. The Search Session Name property of qExcelViewer must be set to the same value as the Search Session Name property of this qListView.
Chart Viewer URL	Allows you to set the URL of the page that contains qChartView. If this property is specified, the View in Chart button is displayed in the toolbar. The target page specified by the URL must contain qChartView. The Search Session Name property of qChartView must be set to the same value as the Search Session Name property of this qListView.

Email Notification

The Email Notification page allows you to configure the web app to be sent as an email.

The Email Notification page contains the following:

Table 16. Email Notification

Element	Description
Subject	Allows you to specify the default subject that is displayed by the list item email.
Message	Allows you to specify the default message that is displayed by the list item email.
Allow Custom Message	Allows you to set the list item to allow the user to modify the message.
Include Link to List or Library	Allows you to allows the hyperlinks to the AllItems.aspx of the list or document library.
Send Email Context Menu Text	Allows you to display the text for the "Send Email" item of the right-click context menu. The default value for this text is "Send Email". An example of another value that is commonly used is "Forward".
Include Document as Attachment	Allows you to allow the email to contain the selected document as attachments.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Grid
- Toolbar
- Context Menu
- Folder Tree
- Email Notification Editor
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 17. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Grid

The Grid page allows you set the appearance of the grid in the web app.

The Grid contains the following:

Table 18. Grid

Element	Description
Selection Column Type	Allows you to set a column type: • None: Use None if you want to click the row to select it or press Ctrl or Shift and click the row to select multiple rows. • MultiRowSelector: Use this option if want the listview to display a check box as the first column. To select a row, select the check box for that row. To select multiple rows, select the check box for each row to be selected. • SingleRowSelector: Use this option if want the listview to display a check box as the first column. To select a row, select the check box for that row.
Hide Expand\Collapse Image When No Child Item	Allows you to hide the +/- sign next to a list item if the item contains 0 child items.
Skin Name	Allows you to select the skin name for the grid in the listview. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Table 18. Grid

Element	Description
Header Style	Allows you to enter the style for the header. You can define the style as you would in a CSS class. Example: font-family: verdana; color: black; background-color: #FFCC99; height: 20px;
Header CSS Class	Allows you to enter the CSS class name for the grid's header. If this property is specified, it will override the style defined in the Header Style property. You must define the class specified here in an external CSS file.
Pager Style	Allows you to enter the style for the pager. You can define the style as you would in a CSS class; for example, font-family: verdana; color: black; background-color: #FFCC99; height: 20px;
Pager CSS Class	Allows you to enter the CSS class name for the pager. If this property is specified, it will override the style defined in the Pager Style property. You must define the class specified here in an external CSS file.
Item Style	Allows you to enter the style for the item. You can define the style as you would in a CSS class; for example, color: red; font-weight: bold
Item CSS Class	Allows you to enter the CSS class name for the item in the odd-numbered row (1, 3, 5, and so on.). If this property is specified, it will override the style defined in the Item Style property. You must define the class specified here in an external CSS file.
Alternating Item Style	Allows you to enter the style for the item in the even-numbered row (2, 4, 6, and so on). You can define the style as you would in a CSS class; for example, font-family: verdana; color: yellow; font-weight: bold;
Alternating Item CSS Class	Allows you to enter the CSS class name for the item in the even number row (2, 4, 6, and so on). If this property is specified, it will override the style defined in the Alternating Item Style property. You must define the class specified here in an external CSS file.
Selected Item Style	Allows you to enter the style for the selected item in the grid. You can define the style as you would in a CSS class; for example, backgroundcolor: orange !important; color: blue !important; You can add "!important" after the color name so that this color will override the selected item style provided by the skin.
Selected Item CSS Class	Allows you to enter the CSS class name for the selected item in grid. If this property is specified, it overrides the style defined in the Selected Item Style property. You must define the class specified here in an external CSS file.
Main View Appearance Field Name	Allows you to define the name of the field whose values determine the color of the row in the main view. The value of this field is compared against the FieldValue and FieldValueRange in the Color Appearance property.

Table 18. Grid

Element	Description
Child View Appearance Field Name	Allows you to define the name of the field whose values determine the color of the row in the child view. The value of this field is compared against the FieldValue and FieldValueRange in the Color Appearance property.

Color Appearance	Allows you to define the color of the rows in the main view, child view, and group header.
	Turn Advanced Mode on if you want to edit Color Appearance in XML format:
	`<Appearance>`
	`<MainViewAppearance>`
	`<RowAppearance FieldValue="value1"`
	`BackgroundColor="color1" FontColor="color2" />`
	`<RowAppearance FieldValueRange="number - number"`
	`BackgroundColor="color3" FontColor="color4" />`
	`</MainViewAppearance>`
	`<ChildViewAppearance>`
	`<RowAppearance FieldValue="value1"`
	`BackgroundColor="color1" FontColor="color2" />`
	`<RowAppearance FieldValueRange="number - number"`
	`BackgroundColor="color3" FontColor="color4" />`
	`</ChildViewAppearance>`
	`<GroupeHeaderAppearance>`
	`<RowAppearance FieldValue="value1"`
	`BackgroundColor="color1" FontColor="color2" />`
	`<RowAppearance FieldValueRange="number - number"`
	`BackgroundColor="color3" FontColor="color4" />`
	`</GroupHeaderAppearance>`
	`</Appearance>`
	You must specify those elements in that sequence. For example, if you specify ChildViewAppearance before the MainViewAppearance you will get an error that the XML is not valid.
	To add color for the group header, you must enable grouping for displayed fields before specifying field value, background color and font color.
	Select the Edit button, then click Add Row Appearance to enter values in the following:
	• Field Value — value for the field
	• Field Value Range — a range of values for the field, including negative values
	• Background Color — the background color of the row for the specified value in the Field Value attribute. The color can be specified as a well-known color such as white, black, cyan, lightGray, as a RGB value such as 255, 255,255, or you can specify it as #FFFFFF, #CCDDEE.
	• Font Color — the font color of the row for the specified value in the Field Value attribute. The color can be specified as a well-known color such as white, black, cyan, light gray, as a RGB value such as 255, 255,255, or you can specify it as #FFFFFF, #CCDDEE. The Font Color attribute is ignored if you specify a URL in the LinkTo attribute or set the LinkToSource or LinkToTargetURL attributes to true.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 19. Toolbar Appearance

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show Filter Button at Top	Allows you to show the Filter/Search button as a top level button. If not selected, If set to false, the Filter/Search button is shown under the Actions button.
Show New Item Button	Allows you to show the New Item button in the toolbar.
Show Upload Button	Allows you to show the Upload button in the toolbar.
Show Upload Button Type	When the Show Upload Button property is selected, the Show Upload Button Type property will determine which upload button will be displayed in the toolbar. This property has three options: SingleFileUploadOnly, MultipleFileUploadOnly, or SingleFileAndMultipleFileUpload. **NOTE:** The Show Upload Button Type is available in SharePoint 2010 only.
Show Folders Button	Allows you to show the Folders button in the toolbar.
Show Delete Button	Allows you to show the Delete button in the toolbar.
Show Replace Button	Allows you to show the Replace button in the toolbar.
Show Copy/Move Button	Allows you to show the Copy/Move button in the toolbar.
Show Open with Windows Explorer Button	Allows you to show the Open with Windows Explorer button in the toolbar.
Show Connect to Outlook Button	Allows you to show the Connect to Outlook button in the toolbar. The Connect To Outlook button lets users view their SharePoint lists in their Microsoft Outlook Calendar. The Connect To Outlook button will work only if you have Microsoft Outlook installed in you computer and it only works for the SharePoint list.
Show Alert Me Button	Allows you to show the Alert Me button in the toolbar. The Alert Me button creates a list-level alert.
Show Export Button	Allows you to show the Export button in the toolbar.
Show Print Button	Allows you to show the Print button in the toolbar.

Context Menu

The Context Menu page allows you to set the look and feel of the context menu. It contains the following:

Table 20. Context Menu Appearance

Element	Description
Enable Context Menu	Allows you to show the context menu.
Context Menu Method	Allows you to define how the context menu is shown if the Enable Context Menu property is set to True. There are three options in this property: • RightClick — The user can open the context menu by right clicking the row in the listview. This is the default option. • ShowContextMenuColumn — The listview will show the context menu column. The context menu column shows a drop-down arrow image which will open the context menu when clicked. • RightClickAndShowContextMenuColumn — The user can open the context menu either by right clicking the row or by using the context menu column.
Show View Properties	Allows you to show the View Properties menu item in the context menu.
Show Edit Properties	Allows you to show the Edit Properties menu item in the context menu.

Table 20. Context Menu Appearance

Element	Description
Show Delete Item	Allows you to show the Delete Item menu item in the context menu.
Show Manage Permissions	Allows you to show the Manage Permissions menu item in the context menu.
Show Alert Me	Allows you to show the Alert Me menu item in the context menu.
Show Version History	Allows you to show the Show Version History menu item in the context menu.
Show Workflows	Allows you to show the Show Workflows menu item in the context menu.
Show Check Out	Allows you to show the Show Check Out menu item in the context menu.
Show Check In	Allows you to show the Show Check In menu item in the context menu.
Show Discard Check Out	Allows you to show the Show Discard Check Out menu item in the context menu.
Show Edit Document	Allows you to show the Show Edit Document menu item in the context menu.
Show Edit in Browser	Allows you to show the Show Edit in Browser menu item in the context menu.
Show Download a Copy	Allows you to show the Show Download a Copy menu item in the context menu.
Show Create Document Workspace	Allows you to show the Show Create Document Workspace menu item in the context menu.
Show Send Mail	Allows you to show the Send Mail menu item in the context menu.
Show Publish/Unpublish Major Version	Allows you to show the Show Publish/Unpublish Major Version menu item in the context menu.

Folder Tree

The Folder Tree page allows you set the appearance of the Folder panel. It contains the following:

Table 21. Folder Tree

Element	Description
Folder Tree Skin Name	Allows you to specify the skin name. The folder tree is enabled if you select the Show Folders Button check box in the Toolbar Appearance tab.
Show Folder Tree on Page Load	If this check box and the Show Folders Button property are selected, the folder panel is initially expanded. This is convenient for your user if they use folders a lot in the lists or library.
Folder Tree Height	Allows you to set the height of the folder panel in pixels. The default is 300.

Email Notification Editor

The Email Notification Editor allows you to set the appearance of rich text editor in the Send Email panel. It contains the following:

Table 22. Email Notification

Element	Description
Rich Text Editor Skin Name	Allows you to specify the skin name for the rich text editor in the Send Email panel. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 23. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 24. Other

Element	Description
New Item Panel Style	Defines the style of the new item panel. The new item panel is displayed when you click the New button in the toolbar and there are multiple lists being aggregated in the view. The new item panel lets the user select which list the new item should be created into. There are two options for the style: • Elaborate — the new item panel displays the list of possible content types for the list, the location and the description for the list. This is the default value. • Compact — the new item panel displays the list of possible content types for the list but it does not display the location and the description for the list.
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web part.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.

Table 24. Other

Element	Description
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web part

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Ajax
- Query Settings
- Security
- Resources

Ajax

The AJAX page allows you to configure AJAX in your web app.It contains the following:

Table 25. AJAX

Element	Description
Enable AJAX	Allows you to enable AJAX for the listview. AJAX enables the listview to carry out some operations within the grid without refreshing the whole page. For example, when you sort a column by clicking its column header or change the page by clicking the pager, the listview only refreshes the data in the grid without causing the whole page to post back. However, there are times when AJAX causes some issues. In this case, you must disable the AJAX capability of the listview. The following are some known situations where you need to disable AJAX: • In Internet Explorer 6, the data grid will fail to carry out the AJAX operation. If your user base reports this issue, you can disable the AJAX to fix it. • If you use javascript's document.write() method in the Results Body property of the Custom Display, the text that is generated using document.write() will not be rendered after the AJAX operation. This is true even if you do not call the document.write() directly within the Results Body but rather through another javascript function that calls document.write().

Query Settings

The Query Settings page allows you to set a query in the web app. It contains the following:

Table 26.

Element	Description
Maximum Row Count	Determines the maximum number of rows that are retrieved from the list. As an example of when you may need to do this, when you want to show the last 5 documents that were modified recently. In this case, you will set the Maximum Row Count property to 5. Most of the time when you use this property, turn off the paging feature and show all of the rows in one page. In this case, you need to set the Page Size property (in the Grid Appearance page) to a bigger number than in the Maximum Row Count property.

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 27. Security

Element	Description
Show User Groups	Allows you to list SharePoint groups whose members can view the web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot view the Web app.
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization elements in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 28. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the Web app , whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

Table 28. Localization

Element	Description
View Properties Context Menu Text Resource ID	By default, the text for the View Properties context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the View Properties context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Edit Properties Context Menu Text Resource ID	By default, the text for the Edit Properties context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Edit Properties context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Delete Item Context Menu Text Resource ID	By default, the text for the Delete Item context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Delete Item context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Manage Permissions Context Menu Text Resource ID	By default, the text for the Manage Permissions context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Manage Permissions context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Alert Me Context Menu Text Resource ID	By default, the text for the Alert Me context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Alert Me context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Version History Context Menu Resource ID	By default, the text for the Version History context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Version History context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Workflows Context Menu Text Resource ID	By default, the text for the Workflows context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Workflows context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Check Out Context Menu Text Resource ID	By default, the text for the Check Out context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Check Out context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Check In Context Menu Text Resource ID	By default, the text for the Check In context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Check In context menu item in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

Table 28. Localization

Element	Description
Undo Check Out Context Menu Text Resource ID	By default, the text for the Undo Check Out context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Undo Check Out Context Menu in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Edit Document Context Menu Text Resource ID	By default, the text for the Edit Document context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Edit Document context menu in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Edit in Browser Context Menu Text Resource ID	By default, the text for the Edit in Browser context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Edit in Browser context menu in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Download Copy Context Menu Text Resource ID	By default, the text for the Download Copy context menu is retrieved from the resource file that is included in the product. If the resource file in the culture that you want to use is not available, define the text for the Download Copy in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Create Document Workspace Context Menu Text Resource ID	By default, the text for the Create Document Workspace context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Create Document Workspace context menu in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Send Email Context Menu Text Resource ID	By default, the text for the Send Email context menu is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Send Email context menu in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Action Button Text Resource ID	By default, the text for the Action toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Action toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Filter Button Text Resource ID	By default, the text for the Filter toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Filter toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

Table 28. Localization

Element	Description
New Button Text Resource ID	By default, the text for the New toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the New toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Upload Button Text Resource ID	By default, the text for the Upload toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the View in Chart toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Upload Document Button Text Resource ID	By default, the text for the Upload Documents toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Upload Documents toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Upload Multiple Documents Button Text Resource ID	By default, the text for the Upload Multiple Documents toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Upload Multiple Documents toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Delete Button Text Resource ID	By default, the text for the Delete toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Delete toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Show Folders Button Text Resource ID	By default, the text for the Show Folders toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Show Folders toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Replace Button Text Resource ID	By default, the text for the Replace toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Replace toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

Table 28. Localization

Element	Description
Copy Move Button Text Resource ID	By default, the text for the Copy Move toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Copy Move toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Open with Windows Explorer Button Text Resource ID	By default, the text for the Open with Windows Explorer toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Open with Windows Explorer toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Connect to Outlook Button Text Resource ID	By default, the text for the Connect to Outlook toolbar button is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Connect to Outlook toolbar button in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Alert Me Button Text Resource ID	By default, the text for the Alert Me toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Alert Me toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Export Button Text Resource ID	By default, the text for the Export toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Export toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Print Button Text Resource ID	By default, the text for the Print toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Print toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
View in Excel Button Text Resource ID	By default, the text for the View in Excel toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the View in Excel toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
View in Chart Button Text Resource ID	By default, the text for the View in Chart toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the View in Chart toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

qListView Procedures

You can perform the following procedures using qListView:

- Configuring Basic Settings using the Configuration Wizard
- Configuring a Basic ListView with Filters using ezEdit

Configuring Basic Settings using the Configuration Wizard

To configure basic settings

1 Add qListView to your page.

2 Select the ezWizard menu item from the Web app Menu of the qListView.

3 Select one or more lists whose data you want to view, and click **Next.**

4 Select the fields you want displayed and the order you want them displayed. Click **Next.** If you want to change your selections, select **Previous**.

5 Click **Finish**.

Configuring a Basic ListView with Filters using ezEdit

To configure basic List View with filters

1 Open **ezEdit**.

2 From the Content page, select **Primary Content**.

3 Replace the default title with a new one.

4 Select **Edit** from the Viewed List section.

This section is populated with lists selected when you configured basic settings.

5 If

you want to	then
Add a list	Click **Add List** to find a list. 1 Enter the Site URL or if using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path. 2 Select **Search Subsites** check box. 3 Click **Get Lists**. 4 Select the lists that you want to use and click **OK.** 5 Click **Save**.
Edit a list that is already displayed	Click **Edit** next to the name of a list. If you want to include a child list, select **Add Child List.** If you want to include a dependent list, select **Add Dependent List**.

6 From the Display Fields section, click **Edit**.

a Select the Field Names that you wish to display.

b If you want, click **Edit** to edit any of the fields.

c Click **Save**.

7 Select the Search/Filter/Replace page.

8 Click Edit in Searched Fields, and select some field names on which you want to filter your web app. Click **OK**.

9 Click **OK** again.

A basic List View displays. Click **Actions | Filter** to filter the web app based on the fields selected in step 8.

13

qManagement

- Overview
- qManagement Pages
- qManagement Procedures

Overview

qManagement allows you to view and manage your web apps in one location. From qManagement, you can:

- easily view and explore the hierarchy of the site where qManagement is located and its subsites
- search for one or more web apps by type or by property
- replace a property value with another one to one or more web apps
- display your search and replace results in a table view
- open ezEdit in the table view

NOTE: When you perform a search and replace, you will not see the ezEdit icon in the table view if you do not have proper permissions.

In order to see all sites and subsites in qManagement, you must have administrator permissions. If you do not have administrator permissions, some sites and subsites may not be displayed.

qManagement Pages

You can configure this web app through its tabs that are accessible through ezEdit. qManagement contains the following tabs:

- Content Page
- Appearance Page
- Advanced Page

Content Page

When you open ezEdit in qManagement, the Content Page opens by default, and contains the following:

- Primary Content
- Paging

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the web app.

Paging

Table 2. Paging

Element	Description
Paging	Allows you to set: • Paging Mode - the type of pager that is displayed at the bottom of qManagement if the items must be divided into multiple pages. Page Size - the maximum number of rows that is displayed in one page. If the number of rows is larger than the Page Size, the data is divided into several pages. You can navigate the pages using the Pager displayed at the bottom of qManagement.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Grid
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 3. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Grid

The Grid page allows you set the appearance of the grid in the web app.

The Grid contains the following:

Table 4. Grid

Element	Description
Skin Name	Allows you to select the skin name for the grid in the listview. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 5. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 6. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Ajax
- Security

Ajax

The AJAX page allows you to configure AJAX in your web app.It contains the following:

Table 7. AJAX

Element	Description
Enable AJAX	Allows you to enable AJAX for the List Form. AJAX enables the List Form to carry out some operations within the grid without refreshing the whole page. For example, when you sort a column by clicking its column header or change the page by clicking the pager, the List Form only refreshes the data in the grid without causing the whole page to post back. However, there are times when AJAX causes some issues. In this case, you must disable the AJAX capability of the List Form. The following are some known situations where you need to disable AJAX: • In Internet Explorer 6, the data grid will fail to carry out the AJAX operation. If your user base reports this issue, you can disable the AJAX to fix it. • If you use javascript's document.write() method in the Results Body property of the Custom Display, the text that is generated using document.write() will not be rendered after the AJAX operation. This is true even if you do not call the document.write() directly within the Results Body but rather through another javascript function that calls document.write().

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 8. Security

Element	Description
Show User Groups	Allows you to list SharePoint groups whose members can view the web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the web app. Separate site group names with commas (for example, Administrators, Readers). **NOTE:** If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot view the web app.
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Table 9. Display

Element	Description
Enable AJAX	When checked, allows you to enable AJAX for qManagement to carry out some operations within the web app without refreshing the whole page. For example, when you sort a column by clicking its column header or change the page by clicking the pager, qManagement only refreshes the data in the grid without causing the whole page to post back. AJAX must be disabled in Internet Explorer 6, the data grid will fail to carry out the AJAX operation. If a user reports this issue, you can disable the AJAX to fix it. **NOTE:** You must enable AJAX to set an AJAX timeout value.
Skin Name	Allows you to select the skin name for the web app. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

qManagement Procedures

You can perform the following procedures using qManagement:

- Configuring qManagement
- Exploring Web apps
- Searching Web apps
- Setting New Property Values

Configuring qManagement

To configure qManagement

1. Add qManagement to your page.
2. Open **ezEdit**.

   The Primary Content page opens by default.
3. Select the following:
   - if you want to enable AJAX
   - if you want to wait a specified amount of time for the result of an AJAX asynchronous postback operation
   - the skin name
   - if you want to display the web app to certain user groups
   - if you want to hide the web app from certain user groups
4. Click **OK**.

Exploring Web apps

Once qManagement is configured, the Explorer View opens by default. The Explorer View shows the site where qManagement is located as the root node, and all its subsites as child nodes. From the Explorer View, you can:

- open a SharePoint web app page
- open ezEdit
- delete a web app
- get more details about the web app, such as web app type, web app product, and version number.

NOTE: The actions available in the treeview depend on your SharePoint permissions.

Searching Web apps

You can search a list of specific web apps by selecting web app names only or selecting web app names and entering property values.

To search Web apps

1. Open qManagement, and click **Search**.
2. Select a web app type.

   Click the ... button to select a single web app type or multiple web app types.
3. Select a web app property.

   The web app properties displayed depend on the web app type selected. If you have selected multiple web app types, then the common web app properties are displayed.
4. Select a search condition, and enter a property

   value. These steps are optional.
5. Click **Go**.

   The results is displayed in a table showing the following:

   - *Web app title*
   - *Web app type*
   - *the path where the web app is located*
   - *an Edit icon which opens ezEdit for the found web app. You will not see the ezEdit icon if you do not have proper permissions.*

Setting New Property Values

NOTE: Setting new property values in your web apps using qManagement may take a long time. If it times out, you can increase the time-out value in the Web.Config file by setting the executionTimeout attribute.

NOTE: This new time-out value is automatically applied to any web app that is on the same page as qManagement, and has an AJAX operation enabled.

TIP: Because it can take a long time, set new property values during off-peak hours. If you want to see which web apps are affected by setting new values, perform a search first. You can search and replace properties in Web apps only.

To set new property values

1 Open qManagement, and click **Replace**.

2 Select a web app type.

Click the ... button to open a dialog that allows you to select a single web app type or multiple web app types.

3 Select a web app property.

The web app properties displayed depend on the web app type selected. If you have selected multiple web app types, the common web app properties are displayed.

4 Select a search condition, and enter a property

value. These steps are optional.

5 Enter a new property value.

NOTE: Ensure you enter the applicable value you want set to a new value.

For example, if you enter the following:

- Web app Type = qListView
- Web app Property = Title
- Search Condition = Contains
- Property Value = Financial Department Web app
- Set Property Value to = Human Resources
- The new value is Human Resources, not Human Resources Web app.

NOTE: If you enter invalid values in the Web apps property, that Web app may become inoperable. If you leave this value blank, the old property value is replaced with a blank value.

6 Click **Go**.

NOTE: When you set a new property value, it cannot be undone.

The results is displayed in a table showing the following:

- *the total number of results, including the number that have succeeded and/or failed*
- *Web app title*
- *Web app type*
- *the path where the Web app is located*
- *an Edit icon which opens ezEdit for the found Web app. You will not see the ezEdit icon if you do not have proper permissions.*
- *a status showing if setting the new property value succeeded or failed. If you see a Failed status, you can click* **Failed** *to see an error message of why the action failed.*

TIP: If you want to print your results, export the results to an Excel spreadsheet first.

14

qMediaView

- Overview
- qMediaView Pages

Overview

qMediaView provides support for the SharePoint Picture and Asset Libraries. The Picture Library provides the ability to upload and share pictures in SharePoint. The Asset Library provides the same ability but with all your digital assets such as images, audio, video, and other content from many applications.

VIDEO: Playing audio and video files requires Microsoft Silverlight. To download, go to http://www.microsoft.com/getsilverlight/Get-Started/Install/Default.aspx. Make sure the status of Microsoft Silverlight is enabled in Internet Explorer's Add-ons Manager.

To enable Silverlight in Internet Explorer Add-ons Manager

1. Click **Tools | Manage Add-ons**.
2. Select **All add-ons**.
3. Select **Enabled** for Microsoft Silverlight in the Add-on list.

qMediaView allows you to:

- provides the ability to manage multiple media type resources in SharePoint
- aggregate media from multiple picture libraries and asset libraries from various SharePoint sites
- select one or more audio or video files and play them consecutively in a playlist fashion
- view the media in several different ways: List, Metadata, Slide Show, Image Gallery
- navigate the folder structures using breadcrumb navigation. The breadcrumb is displayed in between the ribbon button and the picture library view. The breadcrumb navigation bar is displayed as All >> Site/Picture Library Name >> Folder Name >> Subfolder Name. When there are multiple libraries defined in Viewed List property, the Root node "All" is displayed allowing you to navigate to the aggregated view of the all picture libraries' root folder structure.
- divide the data into multiple pages to limit their size and render pages faster, known as Paging
- define the dynamic filter or search criteria using the Filter panel, and supports the List Searcher mode in the Media View

qMediaView Pages

You can configure this web app through its pages that are accessible through ezEdit. qMediaView contains the following pages:

- Content Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Search/Filter Panel
- Paging

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to add a title to the web app.
Viewed Lists	For more information, see Viewed Lists on page 228.
Display Fields	For more information, see Display Fields on page 229..
Enable AJAX	Allows you to enable AJAX. AJAX enables the Media View to carry out some operations within the frame without refreshing the whole page. For example, when you change the page by clicking the pager, the Media View only refreshes the data in the grid without causing the whole page to post back. However, there are times when AJAX causes some issues. In this case, you must disable the AJAX capability of the Media View. The following are some known situations where you need to disable AJAX: • In Internet Explorer 6, the data frame will fail to carry out the AJAX operation. If your user base reports this issue, you can disable the AJAX to fix it. • If you use javascript's document.write() method in the Results Body property of the Custom Display, the text that is generated using document.write() will not be rendered after the AJAX operation.This is true even if you do not call the document.write() directly within the Results Body but rather through another javascript function that calls document.write().
Skin Name	Allows you to specify the skin name for the frame in the Media View. The skin name is associated with a folder under the following directory in the web server: C:\Program Files\Common Files\Microsoft Shared\Web ServerExtensions\14\TEMPLATE\LAYOUTS\QuestSoftware\DevExpress\9.3\Themes The skin folder will contain the CSS file and images needed to control the visual appearance of the grid. If none of the provided skins satisfy your need, you can copy one of the existing skins and modify it. You must follow the CSS class name convention in the CSS file, which is class name followed by the skin name; for example, dxtlControl_Office2003Blue.

Viewed Lists

The Viewed Lists section defines the lists whose data is viewed in the Media View. To aggregate information from multiple lists, define the lists one by one using this property.

The following are the elements for the Viewed List attribute.

Table 2. Viewed Lists

Element	Description
Advanced Mode	Turn on if you want to edit Viewed Lists in XML format. For example: <Lists> <List SiteUrl="." ListName="MyPicLib" /> <List SiteUrl="./TeamBlog" ListName="Photos" /> </Lists>
Site URL	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	Allows you to set the name of the SharePoint list that is edited or displayed. The list name is case sensitive. If the list name contains spaces, include the spaces here as well. To denote the current list, you can use a single dot (.) as the list name. **NOTE:** This only works if the qMediaView is contained in the AllItems.aspx. For example, if you are replacing the Microsoft Media View in the AllItems.aspx of the Tasks list and you use a single dot as the ListName attribute, the ListName attribute of the qMediaView is set to Tasks. If you want to save the list as a template and then add it somewhere else, the name of the new list might not be Tasks and using this relative list name will automatically pick up the new list name for the view.

Display Fields

This property defines the fields that should be displayed in the Media View.

The Display Field contains the following elements:

Table 3. Display Fields

Element	Description
Advanced Mode	Turn on if you want to edit Display Fields in XML format: <Fields> <Field Name="Name" InternalName="FileLeafRef" /> <Field Name="Type" InternalName="DocIcon" /> <Field Name="Copy Source" InternalName="_CopySource" /> <Field Name="File Size" InternalName="FileSizeDisplay" /> <Field Name="Preview" InternalName="PreviewOnForm" /> <Field Name="Picture Width" InternalName="ImageWidth" /> <Field Name="Description" InternalName="Description" /> </Fields>
Field Name	If specified, indicates a cross-site lookup field. It contains the name of the field in the cross-site list that contains the value to be displayed. The field name is case sensitive. A cross-site lookup field enables you to lookup a list that resides in another site, another site collection, or another web application as long as it is in the same configuration database. You need the qListForm web app to create a cross-site lookup field.
Title	Indicates the title of the field. This is useful if the real field name is too long and you want to abbreviate the title in the field header, or if you simply want to display a different title in the field header. If this attribute is not specified, the value specified in the Name attribute is used in the field header. For example: <Field Name="Created By" Title="Author" />

Table 3. Display Fields

Element	Description
Width	Indicates the width of the field. You can specify the value in pixels (Width="20px") or percentage (Width="20%"). We recommend leaving at least one field where you do not specify this property. That field will take up the remaining width of the page. For example: <Field Name="Subject" Width="100px" />
Align	Indicates the horizontal alignment for the field. The values is one of the following: left, right, or center. For example: <Field Name="Created" Align="right" />

Search/Filter Panel

The Search/Filter Panel allows you to define the panels for search, filter, and replace in the web app.

The Search/Filter Panel contains the following elements:

Table 4. Search/Filter Panel

Element	Description
Searched Fields	See Searched Fields on page 230.
Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.
Turn on Media Search Mode	Allows you to perform a search before the Media View displays any data.
Show Search All Fields Control in Search Panel	Determines whether the Filter panel should display the control to search all fields in the list. When set to true, the following control is shown in the Filter panel: The Search All Fields Control allows you to do the following: • Combine the search all fields functionality with other search criteria that has been entered for specific fields. When the search all fields criteria is entered, the Filter panel will construct a filter expression with the "Contain" operator for the following fields in the list: Single line of text, Multiple lines of text, Choice, Lookup (only Lookup to a Single Text field and Lookup to a Number field are supported), Person or Group and Hyperlink or Picture. If the list contains a Lookup to Number field, Search All Fields will not work for negative numbers for that field. The Filter panel will use the entire keywords as the value to be searched. Therefore, if you enter "High Priority" in the search all fields control and perform the search, it will find the following sentence: 'This is a high priority task' However, it will not find the following sentence: 'The priority is not always high'
Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.

Searched Fields

This property defines which fields is displayed in the Filter panel. If defined, the Media View displays the Filter menu items under the Actions tab. To disable the Filter feature, leave this property blank.

You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

NOTE: For the Number type field, the “Contain” operator is not supported for negative numbers, and is not available for the following fields: Lookup to DateTime field, Lookup to Calculated field, and Lookup to ID field.

The Fields element can contain multiple Field elements.The following are the elements for the Searched Fields.

Table 5. Searched Fields

Element	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format. <Fields> <Field Name="Name" InternalName="FileLeafRef" /> <Field Name="Title" InternalName="Title" /> <Field Name="File Type" InternalName="FileType" /> <Field Name="Site Name" InternalName="Site Name" /> </Fields>
Name	Specifies the name of the field. The field name is case sensitive. If the field name contains spaces, include the spaces in the name as well.
Title	Allows you to set the displayed title for the field. The value can be a plain string or an encoded HTML string.
Width	Allows you to set description that is displayed under the field value. This is useful if you want to give a short instruction or explanation about the field.

Paging

Paging allows you to set the following:

Table 6. Paging

Element	Description
Page Size	Allows you to set the maximum number of items that are displayed in one page. If the number of items is larger than the Page Size, the data is divided into several pages. The user can navigate the pages using the Pager displayed at the bottom of the page.
Paging Mode	Allows you to set the type of pager that is displayed at the bottom of the page if the items must be divided into multiple pages. A numeric pager is more user-friendly because you are not bound to only next or previous pages. However, the numeric pager consumes a lot more resources to generate, especially when the list contains a large number of items. The next previous pager is more efficient when the following conditions are fulfilled: • When the Display Fields property does not contain grouped fields. • When the Viewed Lists property only contain one list.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- View
- Slide Show Appearance
- Layout

- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 7. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

View

The View page contains the following:

Table 8. View

Element	Description
Media View Type	The media can be viewed in several different ways. For a picture library: List, Metadata, Slide Show, or Image Gallery. For an asset library: All Assets and Thumbnails. The mode that is used by the web app when the page is first loaded can be set using this property. The user can change the viewing mode on the fly as well using the View tab of the qMediaView Web app.
Skin Name	The skin name for the frame in the Media View. The skin name is associated with a folder under the following directory in the web server: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q22011\Skins The following skins are available out of the box: Black, Default, Forest, Hay, Office2007, Outlook, Simple, Sitefinity, Sunset, Vista, Web20, WebBlue, Windows7. The skin folder will contain the CSS file and images needed to control the visual appearance of the grid. If none of the provided skins satisfy your need, you can define your own skin. The easiest way to do so is by copying one of the existing skins and modify it. Please note that you must follow the CSS class name convention in the CSS file, which is class name followed by the skin name; e.g., .RadListView_Default.

Slide Show Appearance

The Slide Show Appearance Tab contains the following:

Table 9. Slide Show Appearance

Element	Description
Slide Show Style	Allows you to specify the different styles for the slide show. You can change the style on the fly as well using the View tab of qMediaView. The options are as follows: • AutomaticAdvance — Media items are scrolled automatically at the specified speed. • ButtonsOver — Media items are scrolled by hovering over the control buttons for each scroll direction. • Buttons — Media items are scrolled by clicking the control buttons for each scroll direction. • SlideShow — Media items are automatically advanced with an optional transition effect (for example fade) instead of scrolling. • SlideShowButtons — Media items are displayed by clicking the control buttons for each sliding direction. • Carousel — Media items are automatically displayed in carousel style. • CarouselButtons — Media items are displayed in carousel style by clicking the control buttons for each scroll direction. • CoverFlow — Media items are automatically displayed in cover flow style. • CoverFlowButtons — Media items are automatically displayed in cover flow style by clicking the control buttons for each flow direction.
Scroll Duration (milliseconds)	Allows you to specify, in milliseconds, the speed for the scrolling frames. The default is 500.
Frame Duration (milliseconds)	Allows you to specify, in milliseconds, the speed each frame will display. The default is 500. This property is ignored in the Buttons and SlideShowButtons modes.
Wrap Frames	Allows you to set the frame to scroll from the beginning again once it reaches the last frame.
Slide Animation Type	Allows you to specify the skin name for the grid in the listview. Specifies the type of the animation. The options are Fade, Pulse and CrossFade.
Slide Animation Duration (milliseconds)	Allows you to specify the slide show animation duration in milliseconds. The default is 3000.This property is only applicable when the Slide Show Style is set to 'SlideShow' or 'SlideShowButtons'.
Item Width (px)	Allows you to specify the rotator item's width in pixels. The default is 550. This property is only applicable when the Slide Show Style is set to 'SlideShow' or 'SlideShowButtons'.
Item Height (px)	Allows you to specify the rotator item's height in pixels. The default is 410. This property is only applicable when the Slide Show Style is set to 'SlideShow' or 'SlideShowButtons'.
Rotator Width (px)	Allows you to specify the rotator width in pixels. The default is 550. This property is only applicable when the Slide Show Style is set to 'SlideShow' or 'SlideShowButtons'.
Rotator Height (px)	Allows you to specify the rotator height in pixels. The default is 410. This property is only applicable when the Slide Show Style is set to 'SlideShow' or 'SlideShowButtons'.

Table 9. Slide Show Appearance

Element	Description
Enable Ribbon Bar	Allows you to specify if the Ribbon Bar is visible or hidden. The default is Visible. This property is only applicable when the Slide Show Style is set to 'SlideShow' or 'SlideShowButtons'.
Scroll Duration	Allows you to specify possible directions for the scrolling frames. The options are Horizontal and Vertical. This property is only applicable when the Slide Show Style is set to a 'Button' type style.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 10. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 11. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)

Table 11. Other

Element	Description
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Ajax
- Security

Ajax

The AJAX page allows you to configure AJAX in your web app.It contains the following:

Table 12. Ajax

Element	Description
Enable Ajax	Allows you to enable AJAX for the List Form. AJAX enables the List Form to carry out some operations within the grid without refreshing the whole page. For example, when you sort a column by clicking its column header or change the page by clicking the pager, the List Form only refreshes the data in the grid without causing the whole page to post back. However, there are times when AJAX causes some issues. In this case, you must disable the AJAX capability of the List Form. The following are some known situations where you need to disable AJAX: • In Internet Explorer 6, the data grid will fail to carry out the AJAX operation. If your user base reports this issue, you can disable the AJAX to fix it. • If you use javascript's document.write() method in the Results Body property of the Custom Display, the text that is generated using document.write() will not be rendered after the AJAX operation. This is true even if you do not call the document.write() directly within the Results Body but rather through another javascript function that calls document.write().

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 13. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

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qMultiSelector

- Overview
- qMultiSelector Pages

Overview

qMultiSelector contains one or more qSelector web apps. When multiple selectors are displayed, one selector will filter the next one. For example, when if you have two lists called Projects and Phases, the first selector displays the data from the Projects list, while the second selector displays the data from the Phases list. Only phases that belong to the project selected in the first selector are displayed.

qMultiSelector supports multiple languages. You can define a different title for different languages using the Resource List and the Title Resource ID properties. The culture for the page can be defined by appending the Culture HTTP parameter to the page URL. For example:

```
http://hostname/sites/sitename/default.aspx?Culture=en-US
```

qMultiSelector implements the row provider interface. It can provide a row to another Row Consumer web app or a filter to another Filter Consumer web app.

The List Form implements IRowProvider interface. It can provide a row to another Row Consumer web app or a filter to another Filter Consumer web app.

> **NOTE:** IRowProvider is obsolete. It is provided here only for backward compatibility reason. When you establish the web app connection, this interface is labeled Provide Row To (Obsolete) in the web app Connections menu. Use the IWebPartRow implementation that is labeled with Send Row To.

The List Form also implements IWebPartRow interface, and it can provide a row to another web app, such as qListView.

> **NOTE:** IWebPartRow is labeled with Send Row To in the web app Connection menu. This interface cannot be connected with the obsolete IRowConsumer or IFilterConsumer implementation. Do not connect this new interface with the old interface that is marked obsolete.

qMultiSelector Pages

You can configure this web app through its pages that are accessible through ezEdit. qMultiSelector contains the following pages:

- Content Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the web app.
Selector Direction	Allows you to control the positioning of the selectors. If LeftToRight is selected, the selectors are positioned side by side. If TopToBottom is selected, the selectors are stacked on top of one another.
Configuration	See Configuration on page 237.

Configuration

This property defines the configuration for each selector.

The top-level element is called Configuration. This element contains one or more PersistentSelector elements. Each PersistentSelector element represents one qSelector selector. Most attributes in the PersistentSelector element are the same properties as those defined for qSelector without spaces in its name. For example, the Show Empty Selection property in the qSelector becomes the ShowEmptySelection attribute in the PersistentSelector element.

The Configuration section contains the following:

Table 2. Configuration

Element	Description
Advanced Mode	Turn on if you want to edit Configuration in XML format. <Configuration> <PersistentSelector Title="Select a Project" SessionName="ProjectSession" SiteUrl="." ListName="Projects" DisplayFieldName="Project Name" DisplayFields="<Fields><Field Name="Project ID"/><Field Name="Project Name"/></Fields>" /> <PersistentSelector Title="The select a Phase" ParentFilterFieldName="ID" FilterFieldName="Project List Item ID" SessionName="PhaseName" SiteUrl="." ListName="Phases" DisplayFieldName="Phase Name" /> </Configuration>
Title	Allows you to enter a title that is displayed above the selector.
Site URL	Allows you to enter the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL.
List Name	Allows you to enter a list name
Session Name	Allows you to define the search session variable name where the qSelector stores the last selected item. If you want to associate several selectors, you must define the same Search Session Name property for all of them.
Hidden	Allows you hide the field to prevent other users from changing the selection.
Parent Filter Field Name	Allows you to enter the field name from the previous selector that is used to filter the information in this selector.
Filter Field Name	Allows you to enter the field name in the selector that filters the information.
Display Field Name	Allows to enter the name of the field that you want to display in the selector.If you want to display information from multiple fields, use the Display Format properties. The Display Field Name property is ignored if the Display Format property is defined.

Table 2. Configuration

Element	Description
Display Format	Allows you to define the format of the items that are displayed in the selector. You can use field replacement expression (<%field name %>) to refer to a field name. For more information, see Display Format on page 14.
Display Fields	Allows you to define the fields that are displayed in the drop-down menu of the web part. You can enter values for the following: • Site URL - Indicates the Site URL of the field. You can use an absolute or relative URL • List Name - Indicates the name of the List. The field name is case sensitive. • Parent Filter Field Name - Defines the field in the parent field that is used to filter this field. It is the primary key in the list that is used in the lookup or cross-site lookup field. • Filter Field Name - Defines the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.
Eliminate Duplicate Values	Allows you to define whether or not you want to eliminate duplicate values in the drop-down menu. This is useful in case you want to use the selector as a filter to another Web app.
CAML Filter Expression	Allows you to enter a CAML (Collaboration Application Markup Language) query expression to filter your data. CAML is an XML based query language. For more information, see CAML Filters on page 19.
Complex Filter	Allows you enter Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. For more information, see Complex Filters on page 21.
Sort Field	Allows you to enter a value that is used to sort the entries in the qSelector. This property accepts a single field name.
Sort Ascending	Allows you to sort the entries in the ascending order. Deselect this check boxif you want the entries in descending order. This field is ignored if the Sort Field property is not defined.
Show Empty Selection	Allows you to display the value of Empty Selection Item Name property as the first item. You should check this property if you want the user to be able to select nothing. Selecting nothing returns the entire unfiltered list. Another case is when the qSelector acts as a filter to another web app and you want the ability to pass an empty filter. This means the other web app will display all its data unfiltered.
Empty Selection Item Name	Allows you to display a specified value as the first item in the Selector when the Show Empty Selection is checked. The default is - Select One -.
Empty Drop Down Item Name	Allows you to display specified text that is displayed in the drop-down menu when it contains no list items. The default is <Empty>.
Persistent Width Selector	Allows you to set the width of the input part for the persistent selector.
Drop Down Width	Allows you to set the width of the drop-down for the selector in pixels. If you specify the width for each field in the Display Fields property in pixels, the value of this property is usually the total width of all fields.
Drop Down Height	Allows you to set the height of the drop-down menu.
Refresh Page When Selection Changed	Allows you to determine whether the page should be refreshed when you select another item in the selector. By default, the value is false, which means that the page is only posted back.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Selector
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 3. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Selector

The Selector page allows you to configure the appearance of the selector. It contains the following:

Table 4. Toolbar

Element	Description
Skin Name	Allows you to select the skin name for the grid in the listview. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web ServerExtensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 5. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 6. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web part.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web part

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 7. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 8. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

16

qPageRedirector

- Overview
- qPageRedirector Pages

Overview

qPageRedirector sends users to a designated URL. To accomplish this, you could create a "My Home" hyperlink on your page that redirects the user to the MyHomeRedirect.aspx page. In the MyHomeRedirect.aspx page, you would put a Page Redirector web app.

qPageRedirector reads a list that contains two columns: User Name and URL. It will search the list for the entry with User Name equals to the current logged on user. If it finds it, it will redirect the user to the URL mapped to that user in the list.

The SharePoint list for the Page Redirector must contain these two fields:

- User Name – a user lookup field that defines the user.
- URL – a text field. It can contain relative or absolute URL

If your list uses different names for the fields, you must define the names in the User Name Field Name and the URL Field Name property of the Page Redirector.

Here is the sample list:

Table 1. Sample List

User Name	URL
Questdev\jsmith	home/jsmith.aspx
Questdev\kbrown	home/kbrown.aspx

When jsmith logs in, it will redirect him to home/jsmith.aspx.

You can localize the title of the Page Redirector. You can define different Titles for different cultures using the Resource List and the Title Resource ID properties. You can use the Culture Selector web app to set the culture for the site. The Culture Selector web app will define the culture using the Culture HTTP parameter as shown in the following example:

http://hostname/sites/sitename/default.aspx?Culture=en-US

qPageRedirector Pages

You can configure this web app through its tabs that are accessible through ezEdit. qPageRedirector contains the following tabs:

- Content Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 2. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app. This field is mandatory.
Site URL	Allows you to enter the URL to the site that contains the list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory.
List Name	Allows you to enter a list name. The name is case sensitive. If the name of the list contains spaces, include the spaces in the List Name.
User Name Field Name	Allows you to enter the name of the field containing the user name. The default value is User Name.
URL Field Name	Allows you to enter the name of the field containing the URL. The default value is URL.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Menu
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 3. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Menu

The Menu page allows you to configure the menu items in the web app. It contains the following:

Table 4. Toolbar

Element	Description
Skin Name	Allows you to select the skin name for the grid. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web ServerExtensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.
Menu Width	Allows you to enter the width of the menu (in pixels).
Menu Height	Allows you to enter the height of the menu (in pixels).

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 5. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 6. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.

Table 6. Other

Element	Description
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 7. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 8. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

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qPanelMenu

- Overview
- qPanelMenu Pages
- qPanelMenu Procedures

Overview

qPanelMenu groups navigation items into multiple panels. The panel menu is similar to that on the left side of Microsoft Outlook.

qPanelMenu has the ability to:

- display items from different SharePoint lists. Each SharePoint list can contain the definition for multiple panels. The source lists for the menu are defined in the Configuration property.
- define a static FilterExpression using Complex Filters so you can define the items to be displayed in your menu.
- show or hide the top-level items that come from a certain list based on the site group membership of the currently logged-in user.
- hide menu items whose target URLs are not accessible by the current user
- define an icon for each menu item, and define the target frame for the target page.
- define different Title for different cultures using the Resource List and the Title Resource ID properties. Your can define the culture appending the Culture HTTP parameter to the page URL. For example: http://hostname/sites/sitename/default.aspx?Culture=en-US

To configure this web app, we recommend that you use the AgreeYa Menu List custom list template. Use the template to define a source list for the menu items on a SharePoint site. For information on how to create the source list, see Configuring qPanelMenu on page 253. This automatically creates a list which contains the following columns by default:

Table 1. Menu List Custom List Template

Column	description
Text	Provide the text for the menu item.
Menu ID	Provides the ID for the menu item.
Parent Menu ID	Provides the ID of the menu item that is the parent of this menu item.
Target Url	Provides the target URL for the menu item. **NOTE:** This is not a Hyperlink field because Hyperlink field does not let you use a relative URL.
Target	Indicates where to open the target page. Specify **_blank** to open the page in a new window. Leave the target column empty to redirect the current window to the target URL.
Icon Url	Provides the URL to the icon for the menu item.
Access Key	Indicates the shortcut key to activate the menu item. You can activate the menu item by pressing ALT+Access Key Character.
Culture	Indicates the culture for this menu item

You must map these columns in the source list to the corresponding field names in the Configuration section in the Web app. For more information on the Configuration section, see Configuration on page 248. For more information on how to configure the qPanelMenu Web app, see Configuring qPanelMenu on page 253.

qPanelMenu Pages

You can configure this Web app through its tabs that are accessible through ezEdit. qPanelMenu contains the following pages:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Optional Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 2. Primary Content

Element	Description
Title	Allows you to enter a title for the web app.
Configuration	See Configuration on page 248.

Configuration

This property defines the source list and behavior of the Panel Menu. The Configuration element can contain one or more Menu elements. Each menu element can read a different source.

The following are the elements for the Configuration section:

Table 3. Configuration

Element	Description
Advanced Mode	Turn on if you want to edit Configuration in XML format. <Configuration> <Menu SiteUrl="url" ListName="listName" FilterExpression="filterExpression" TextFieldName="Text" MenuIdFieldName="Menu Id" TargetUrlFieldName="Target Url" TargetFieldName="Target" IconUrlFieldName="Icon Url" AccessKeyFieldName="Access Key" CultureFieldName="Culture" ShowUserGroups="Group1, Group2" HideUserGroups="Group1, Group2" CheckUserAccess="true/false"/> </Configuration>
Site URL	Allows you to set the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. When using a relative URL, you can use a single dot (.) to denote the current path, a double dot (..) to denote the previous path, and a slash (/) to denote the root path.
List Name	Allows you to enter the name of the list. The name is case sensitive. If the name of the list contains spaces, include the spaces in the List Name.
Filter Expression	Allows you to filter the data. The Complex Filter Expression to filter the data. For more information, see Complex Filters on page 21.
Menu ID Field Name	Allows you to set the name of the field that contains the text for the menu item. This attribute is optional if the field name is Text.
Parent Menu ID Field Name	Allows you to set the name of the field that contains the parent ID for the menu item. This attribute is optional if the field name is Parent Menu ID.
Target URL Field Name	Allows you to set the name of the field that contains the indicator of where to open the target URL. This attribute is optional if the field name is Target Url.
Target Field Name	Allows you to set the name of the field that contains the indicator of where to open the target page. This attribute is optional if the field name is Target.
Icon URL Field Name	Allows you to set the name of the field that contains the icon URL for the menu item. This attribute is optional if the field name is Icon Url.
Culture Field Name	Allows you to set the name of the field that contains the culture for the menu item. This attribute is optional if the field name is Culture.
Access Key Field Name	Allows you to set the name of the field that contains the access key for the menu item. This attribute is optional if the field name is Access Key.
Show User Groups	Allows you to show groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Hide User Groups	Allows you to hide groups where the user is a member of one of the SharePoint groups listed. Separate site group names with commas.
Check User Access	Allows you to show only the menu items that point to the workspace which the current can access. **NOTE:** Performance can be affected when checking the access for each menu item, especially for large menus. Also, make sure that every menu item points to a page in a SharePoint site that is reachable from the current site (as opposed to any external site, such as Google®)

Optional Content

The Optional Content page contains the following:

Table 4. Optional Content

Element	Description
Expand Effect	Allows you to set the visual effect that is applied when the panel items are expanded or collapsed. The default expand effect is Linear.
Expand Group Indices	Allows you to set the indices of the groups that are expanded initially when the page is loaded. The index starts with 0. For example, if you want to expand the first and the third groups, specify: 0, 2
Expand All Parent Menu Items on Load	Allows you to expand all parent menu items when the page is loaded. Parent menu items are all menu items that contain sub menu items underneath it. If you set this to true, you do not have to define the Expanded Group Indices property since it will automatically expand the top level menu items as well.
Expand Mode	Allows you to set the behavior of the panels when one is expanded or collapsed. The default expand mode is MultipleExpandedItems. This expand mode enables you to expand multiple panels at the same time.

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Navigation

Navigation

The Navigation page allows you to configure how and where the user will navigate in the web app. It contains the following elements:

Table 5. Navigation

Element	Description
Target URL Relative to Master URL	Allows you to append the value of the target URL to the URL of the master page. By default, this property is set to true to maintain backward compatibility with the existing applications who assumed that the relative URL is appended to the relative URL of the master page.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Menu
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 6. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Menu

The Menu page allows you to configure the menu items in the web app. It contains the following:

Table 7. Toolbar

Element	Description
Skin Name	Allows you to select the skin name for the grid in the listview. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.
Menu Width	Allows you to enter the width of the menu (in pixels).
Menu Height	Allows you to enter the height of the menu (in pixels).

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 8. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 9. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone

Table 9. Other

Element	Description
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 10. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 11. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

qPanelMenu Procedures

You can perform the following procedures using qPanelMenu:

- Configuring qPanelMenu

Configuring qPanelMenu

To configure qPanelMenu

1 Create a source list from AgreeYa Menu List in SharePoint. The list will contain the following fields:

- Text - This field is mandatory. This is a single line of text field that provides the text for the menu item.
- Menu Id - This field is mandatory. This is a single line of text field that provides the ID for the menu item.
- Parent Menu Id - This field is mandatory. This is a single line of text field that provides the parent ID for the menu item.
- Target Url - This field is optional. This is a single line of text field that provides the target URL for the menu item. Please note that this is not a Hyperlink field because Hyperlink field does not let you use a relative URL.
- Target - This field is optional. This is a single line of text field that indicates where to open the target page.
- Icon Url - This field is optional. This is a single line of text field that provides the URL to the icon for the menu item.
- Access Key - This field is optional. This is a single line of text field (one character) that indicates the shortcut key to activate the menu item. You can activate the menu item by pressing ALT+Access Key Character.

- Culture - This field is optional. This is a single line of text field that indicates the culture for this menu item.

2 Create a top-level menu. Click **New Item** to add information to your source list.

3 Create an entry in the list with blank Parent Menu Id, for example:

Table 12. Example of Panel Menu List

Text	Menu ID	Parent Menu ID	Target URL	Target	Icon URL	Access Key	Culture
Projects	01					P	
Project	01					P	id-ID
Project One	01.01	01	Project1			O	
Project Status	01.01	01	Project1			S	id-ID
Multi Projects	01.02	01	MultiProjects			M	
Bank Project	01.02	01	MultiProjects			B	id-ID

The Panel Menu can also read any type of list that contains at least the first four fields: Text, Menu Id, Parent Menu Id, and Target Url.

NOTE: If the name of the fields is not specified, you must define the field name mapping in the Configuration property.

4 Add qPanelMenu to your site collection page.

5 Open **ezEdit**.

The Primary Content page opens by default.

6 From the Configuration section, select the source list created in SharePoint, and click **OK**.

7 Click **Edit** next to the list name.

8 For each field name, select the corresponding column name (from the source list created in SharePoint). For example, for Text Field Name, select Text; for Menu Id Field Name, select Menu Id. Click **OK**.

IMPORTANT: You must build the parent menu before building child menu. If a child menu list item references a menu ID of another list item, this list item must have been used to construct a menu.

9 If needed, configure the elements in the other tabs.

10 When done configuring each tab, click **OK.**

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qSelector

- Overview
- qSelector Pages

Overview

qSelector displays data from a SharePoint list in a drop-down control. qSelector remembers the last item selected, even after you leave the page.

Using qSelector, you can:

- keep the context of your work. For example, you can manage multiple projects in one workspace easily by using qSelector. You can place a selector that displays the project information on every page in your application and use that selector to filter the data in the qListView or any other view on the page. Because the selector remembers the last item selected even as you move from page to page, you only see the data for the same project until you switch to another project.
- place a selector above a qListForm to select a certain item and then feed that item to the list form because the qSelector is a row provider.
- support dynamic language switching and Flash and JavaScript (HTML5)

qSelector supports multiple languages. You can define a different Title for different languages using the Resource List and the Title Resource ID properties. The culture for the page can be defined by appending the Culture HTTP parameter to the page URL. For example:

http://hostname/sites/sitename/default.aspx?Culture=en-US qSelector

implements the following web app connection interfaces:

- IRowProvider interface, which provides a row to another Row Consumer web app or a filter to another Filter Consumer web app.

  NOTE: The IRowProvider interface is obsolete. It is provided here only for backward compatibility reason. When you establish the web app connection, this interface is labeled Provide Row To (Obsolete) in the web app Connections menu. Use the IWebPartRow implementation that is labeled with Send Row To.

- IWebPartRow interface, which provides a row to another web app, such as qListView.

  NOTE: The IWebPartRow implementation is labeled with Send Row To in the web app Connection menu. This interface cannot be connected with the obsolete IRowConsumer or IFilterConsumer implementation. Do not connect this new interface with the old interface that is marked obsolete.

- IFilterConsumer interface, which consumes a filter from another web app that implements IRowProvider or IFilterProvider interface.

  NOTE: The IFilterConsumer interface is obsolete. It is provided here only for backward compatibility reason. When you establish the web app connection, this interface is labeled Consume Filter From (Obsolete) in the web app Connections menu. Use the IWebPartParameter consumer implementation that is labeled with Get Filter From.

- IWebPartParameter interface, which enables the selector to consume a filter from another web app that implements IWebPartRow or IWebPartParameter interface.

> **NOTE:** The IWebPartParameter consumer implementation is labeled with Get Filter From in the web app Connection menu. This interface cannot be connected with the obsolete IFilterProvider or IRowProvider implementation. Do not connect this new interface with the old interface that is marked obsolete.

qSelector Pages

You can configure this web app through its pages that are accessible through ezEdit. qMultiSelector contains the following pages:

- Content Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Filtering
- Sorting
- Selection

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the web app.
Search Session Name	Allows you to define the search session variable name where the qSelector stores the last selected item. If you want to associate several selectors, you must define the same Search Session Name property for all of them.
Site URL	Allows you to enter the URL to the site that contains the list to be searched. The URL can be absolute (http://...) or relative to the current page URL.
List Name	Allows you to enter a list name
Display Field Name	Allows to enter the name of the field that you want to display in the selector.If you want to display information from multiple fields, use the Display Format properties. The Display Field Name property is ignored if the Display Format property is defined.
Display Format	Allows you to define the format of the items that are displayed in the selector. You can use field replacement expression (<%field name %>) to refer to a field name. For more information, see Display Format on page 14.

Table 1. Primary Content

Element	Description
Display Fields	Allows you to define the fields that are displayed in the drop-down menu of the web app. If defined, the choices in the drop-down menu are displayed in a grid. This property is an XML string in this format: <Fields> <Field Name="fieldName" Width="width" /> <Field Name="fieldName" Width="width" /> </Fields> The <Fields> element may contain one or more <Field> elements. • Name - The name of the field. The field name is case-sensitive. • Width - The display width of the field. The value can be in pixel (for example: 200px) or percent (for example: 30%).
Eliminate Duplicate Values	Allows you to define whether or not you want to eliminate duplicate values in the drop-down menu. This is useful in case you want to use the selector as a filter to another Web Part.

Filtering

The Filtering page allows you to use CAML filters to dynamically filter records or use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 2. Filtering

Element	Description
CAML Filter	Allows you to specify the CAML (Collaboration Application Markup Language) query expression to filter your data. CAML is an XML-based query language. The CAML Filter will only be applied to the data. The filter will not be applied to the responses. For more information, see CAML Filters on page 19.
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

Sorting

The Sorting page allows you to define the sorting criteria.

The Sorting page contains the following elements:

Table 3. Sorting/Paging

Element	Description
Sort Fields	Allows you to enter a value that is used to sort the entries. This property accepts a single field name.
Sort in Ascending Order	Allows you to sort the entries in the ascending order. Deselect this check box if you want the entries in descending order. This field is ignored if the Sort Field property is not defined.

Selection

The Selection page allows you to configure what do with empty selections. This page contains the following:

Table 4. Selection

Element	Description
Show Empty Selection	Allows you to display the value of Empty Selection Item Name property as the first item. You should check this property if you want the user to be able to select nothing. Selecting nothing returns the entire unfiltered list. Another case is when the qSelector acts as a filter to another web app and you want the ability to pass an empty filter. This means the other web app will display all its data unfiltered.allow customer to select the behavior of the empty selection. And this option is only valid for the "Get Filter From" connection type.
Turn Off Filtering When Empty Selection is Chosen	Allows you to turn filtering on or off if Show Empty Selection is selected. This option is only valid for the "Get Filter From" connection type.
Empty Selection Item Name	Allows you to display a specified value as the first item in the Selector when the Show Empty Selection is checked. The default is - Select One -.
Empty Drop-Down Item Name	Allows you to display specified text that is displayed in the drop-down menu when it contains no list items. The default is <Empty>.
Refresh Page When Selection Changed	Allows you to determine whether the page should be refreshed when you select another item in the selector. By default, the value is false, which means that the page is only posted back.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Selector
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 5. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Selector

The Selector page allows you to configure the appearance of the selector. It contains the following:

Table 6. Toolbar

Element	Description
Skin Name	Allows you to select the skin name for the grid. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.
Persistent Selector Width	Allows you to specify the width of the input part for the selector.
Drop Down Width	Allows you to specify the width of the drop-down menu for the selector in pixels. If you specify the width for each field in the Display Fields property in pixels, the value of this property is usually the total width of all fields.
Drop Down Height	Allows you to specify the height of the drop-down menu for the selector.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 7. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 8. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.

Table 8. Other

Element	Description
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 9. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 10. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

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qSIChartView

- Overview
- qSIChartView Pages
- qSIChartView Procedures

Overview

The qSIChartView aggregates data from your external system and displays it in different chart types.

qSIChartView allows you to:

- produce 34 different chart types
- display data from multiple lists, even when the lists are in different sites, site collections, or web applications (as long as they are in the same configuration database).
- customize the look of the chart, including adding animation to your chart, and rendering your charts in Flash and Javascript
- view your web apps in SharePoint on PC, Mac, various browsers and iPad, iPhone mobile devices where Flash is not available
- display one or more trend lines in the chart
- Some charts support dual Y Axis, make your charts more readable with dual Y axis support
- filter your data, and generate multiple data series based on dynamic data
- create drill down charts
- display, create, and edit data in your external systems. Out of the box, this Web app supports the DAO Provider for:
    - Web Services
    - SQL Server
    - Oracle
    - Domino Server using XML over HTTP
    - Salesforce
    - K2Server (for SharePoint 2010 only)

TIP: To better understand SI web apps, read the System Integration Developer Guide.

qSIChartView Pages

You can configure this web app through its tabs that are accessible through ezEdit. qSIChartView contains the following tabs:

- Content Page
- Behavior Page

- Appearance Page
- Advanced Page

Content Page

When you open ezEdit in qSIChartView, the Content page opens by default. It contains the following:

- Primary Content
- Filtering
- Search/Filter Panel

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Display

Element	Description
Title	Allows you to add a title for the web app.
Catalog	See Catalog on page 263 for more information.
Chart Type	Allows you to select the type of chart used to display the data. For examples of each chart type, see Sample Charts on page 393. When you select one of the Multi Series, Scroll or Stacked chart type, you must define multiple data series in the Configuration property. Otherwise you will get a blank chart.
Configuration	See Configuration on page 267 for more information.

Catalog

This property defines the entity and the operations related to the entity.

NOTE: If you are using a Salesforce system, the parameters that are available depend on the method selected. See the System Integration Developer Guide for the methods and parameters.

The Catalog section contains one or more entities. An entity identifies which system and service you have defined in the Configuration Editor. An entity contains one or more operations that can be executed on the entity, and consists of the following attributes:

Table 2. Catalog

Element	Description
Advanced Mode	Turn on if you want to edit the Catalog in XML format: <Catalog> <Entity Name="entityName" System="systemName" Service="serviceName" Default="true/false" SetSessionName="sessionName" ResetSessionNames="sessionName"> <Properties> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> </Properties> <Operation Name="operationName" Method="methodName" Default="True/False" > <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> </Operation> </Entity> <Entity>...</Entity> </Catalog>
System	Allows you to specify the system name that is defined in the System Integration configuration file. If the system name does not exist in the System Integration configuration file, you will get an error.
Service	Allows you to specify the service name that is defined in the System Integration configuration file. The service name that you specify here must belong to system that you specify in the System attribute. If the service name does not exist in the System Integration configuration file, you will get an error.
Name	Allows you to specify the name of the entity which must be unique within this Catalog. The name does not have to match with any name in your external system. However, it is recommended that you use a descriptive name for your entity.
Set Session Name	Allows you to enter name of the session variable where the edited or newly created item is stored when it is saved, or the item that is being displayed or edited is stored when it is loaded.
Reset Session Names	Allows you to reset (set to NULL) the value of the session variable whose name is specified in this attribute. Specify multiple names by separating them with commas.

Operations

An operation contains the following properties.

Table 3. Operations

Element	Description
Name	Allows you to define the name of the operation. This name does not have to match with any name in your external system.
Method Type	There are three supported types: • TableDirect — select this type to return all the data in a table. Specify the schema and table name in the Method field below. • Stored Procedure — select this type to use a stored procedure to update or return data. Specify the schema and stored procedure in the Method field below. Once a stored procedure is selected, the Editor updates with the parameters that are defined for the stored procedure. It is recommended that you do not add or remove these parameters or change the "Name", "Source", or "Usage" fields. • Text — select this type to use free form PL/SQL string to query or update the database. If your SQL string requires parameters, you will need to add them manually by clicking the Add Parameter button. **NOTE:** This attribute is only applicable for Oracle systems.
Method	Allows you to set the real name of the operation in your external system. For example, it may refer to the name of a web service method. Or it may refer to the name of a stored procedure in your SQL Server database.
Default	Allows you to select this operation as the default for the entity. The default operation is the first operation that is called to retrieve the entity to be displayed. If this attribute is not specified, the first operation listed in the entity becomes the default operation.

Operation Parameters

You can click Edit to add parameters to your operation. You can define the following:

Table 4. Operation Parameters

Parameter	Description
Name	Allows you to set the parameter name that is used when calling the operation in your external system.
Source	Allows you to define the source of this parameter, which can be one of the following: • Default Value — the default value of the parameter type or default instance of the parameter type. You must specify a type and usage (the direction for the parameter). For example, if the parameter type is Boolean, the Default Value for the parameter is false; if the parameter type is String, the default value is null. If a simple class or structure is involved, an instance of the object is created and used as the parameter value. • NullValue — the value of the parameter is null. You must specify a type and usage. • FixedValue — the value of the parameter. You must specify a value, type, and usage. • HttpRequest — the value of the parameter is retrieved from the HTTP parameters in the page URL. You must specify a Source Name (the source name where the value is retrieved) and usage. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter. • Input — you can link a field on the form to an operation parameter. You must specify a Source Name, type, and usage. You can also use this source type to retrieve the current user information as the value of the parameter. You can retrieve the following information: CurrentUserName - display name of the current user CurrentLoginName - login name of the current user CurrentUserID - ID of the current user CurreUserEmail - email address of the current user • RowFromAnotherWebApp — the value of the parameter that is retrieved from the row that is consumed from another web app. You must specify a Source Name and type. • Session — the value of the parameter that is retrieved from the row that is stored in the session. You specify Session Name (define the name of the session where the row of information is retrieved), Source Name, type, and usage. • ComplexType — the value of the parameter is an object based on the Type attribute and Member definition inside the Parameter. Array and nested complex types are supported. You must specify type and usage. • Array — the value of the parameter is an array of values. You must specify type and usage. • XML — the value of the parameter that is dynamically built when the condition is execute at runtime. You must specify type and usage. **NOTE:** For sources related to Salesforce, see the System Integration Developer Guide.

You can define one or more Property elements.

Table 5. Properties

Element	Description
Name	Allows you to specify the name of the property. Refer to the documentation for the DAO Provider to your external system will tell you the name of the property that you must define.
Type	Allows you to specify type of value that is specified in the Value attribute. Example: System.String.
Value	Allows you to specify the value of the property.

Configuration

This property defines how the data should be grouped in the X Axis and the data series for the chart.

The Configuration element should contain only one X Axis and one Series element. Each Series element may contain one or more Items element.

Configuration Properties

The Configuration section contains the following properties:

Table 6. Configuration Properties

Element	Description
Advanced Mode	Turn on if you want to edit Configuration in XML format. <Configuration> <XAxis FieldName="FieldName" [optional attributes]/> <Series> <Items FieldName="FieldName" AggregateFunction="Count|Avg|Sum|Min|Max|StdDev|Var" [optional attributes]/ <Items FieldName="FieldName" AggregateFunction="Count|Avg|Sum|Min|Max|StdDev|Var" [optional attributes]/ </Series> /Configruration>
Data Index/Data Member	Allows you to define the data table name that contains the options in case the operation returns multiple tables. If the external system returns multiple data tables without names, you can use the Data Index attribute to refer to the table. The index is a number and it starts with 0 (not 1). **NOTE:** These are optional.
Field Name	Specifies the name of the field that corresponds to the x axis data. This attribute is mandatory. The field name is case sensitive.
Display Format	Allows you to specify how the X axis values are formatted when displayed. For more detail about the syntax of the Display Format attribute, see Display Format on page 14.
Sort By	Allows you to select how you want to group the data on the chart, either by field name or data series number. The value of this property does not have to be the same as the value in the Field Name attribute.
Sort Order	Specifies how the values in the column specified by the Sort By should be ordered, either ascending or descending.

Data Series

You can define a data series for the chart by configuring the following properties:

Table 7. Data Series

property	description
Field Name	Allows you to specify the field whose values are aggregated and plotted against the values in the Y Axis. **NOTE:** Only Number or Currency field can be used in the Field Name. The field name is case sensitive.
Aggregate Function	Allows you to specify the aggregation function to be performed on the field specified in the Field Name attribute. The following aggregation functions are supported: Count, Avg, Sum, StdDev, Var, Min, or Max.
Series Name	Allows you to display a series name in the legend as title of the series. **NOTE:** This applies to multiple data series charts.
Chart Series Type	Allows you to define the chart type for this series when you use one of the combination chart in the Chart Type property. The choices are: COLUMN, AREA or LINE. This attribute is ignored for any non-combination chart type

Table 7. Data Series

property	description
Filter Expression	Allows you to define the filter that is applied for the data in this series. The filter is defined using the Complex Filter expression. For more information, see Complex Filters on page 21.
Filter Field Name	Allows you to determine the field name whose data is used to generate a dynamic data series. The chart view will analyze the data in this field and generate the filter expression for each data series automatically, one per unique value in the field. This attribute is useful if the data that you should use as the filter expression for the data series is dynamic.
Drill Down Chart URL	Allows you to determine the URL of the page that contains the drill down chart for this data series. A drill down is the capability to click a chart item to display more detailed information about the chart item.
Show Values	Allows you to show the values for this dataset. **NOTE:** This attribute is only applicable for a multi series chart.
Include in Legend	Allows you to determine if you want to include the series name of this dataset in the legend. This can be particularly useful when you're using combination charts and you've used the area/line chart to plot a trend, and you do not want the series name of that trend to appear in legend. **NOTE:** This attribute is only applicable for a multi series chart.
Parent Y Axis	Allows you to set the parent axis of the dataset - P (primary) or S (secondary). Primary datasets are drawn as on the left y-axis and secondary on the right y-axis. In 3D Column (or stacked Column) + Line Combination Charts, the columns draw against primary y-axis and the linesagainst secondary y-axis. In 2D dual Y combination charts, you can choose which dataset to render against which y-axis. **NOTE:** This attribute is only applicable for a chart with a dual y axis.
Hide	Allows you to sort a data series that will not be displayed on the chart. **NOTE:** This option is only valid for multi-series charts only.

Examples of Configuration Property

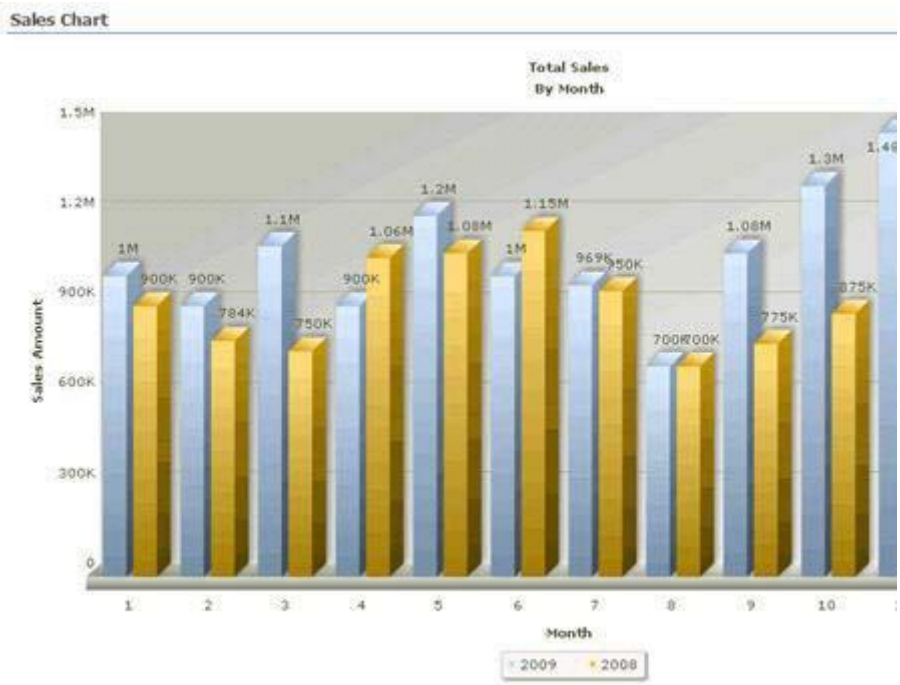
The following is an example of the Configuration property if you want to display data from your Sales list. Your Sales list contains the sales amount for every month in the year. There are 3 fields in the list: Year, Month and Amount. For example, say you want to display the month in the X axis. You also wants to create the data series dynamically based on the year field.

If you are using Advanced Mode, here is the XML:

```
<Configuration>
   <Series>
    <Items FieldName="Amount" AggregateFunction="Sum" ChartSeriesType="COLUMN" FilterFieldName="Year"
/>
   </Series>
   <XAxis FieldName="Month" SortFieldName="Month" />
</Configuration>
```

The following shows the resulting chart:

Figure 1. Configuration property chart



Filtering

The Filtering page allows you to use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 8. Filtering

Element	Description
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

Search/Filter Panel

The Search/Filter Panel allows you to define the panels for search, filter, and replace in the web app.

The Search/Filter Panel contains the following elements:

Table 9. Search/Filter Panel

Element	Description
Searched Fields	See Searched Fields on page 270.
Turn On List Searcher Mode	Allows you to perform a search before the chart view displays any data.
Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.

Table 9. Search/Filter Panel

Filter Usage Criteria	Allow you to pass the filter criteria to the DAO provider layer. There are three options in this property: • PassToDAOProvider — The filter criteria is passed to the DAO Provider. When you select this, the filter criteria will not be used to filter the data that is returned by the external system (because the SI List View assumes that the data has been filtered by the external system). • FilterData — The filter criteria is used to filter the data that is returned by the external system. • PassToDAOProviderAndFilterData — The filter criteria is passed to the DAO Provider and is used to filter the data that is being returned by the external system. When you select PassToDAOProvider or PassToDAOProviderAndFilterData, you can use the filter criteria as parameter values in the operations in the Catalog property. In order to do so, you specify the parameter source as Input and the source name as: • FieldName.Value — allows you to retrieve the value that is entered by the user in the Filter panel for a specific field. • FieldName.MaxValue — allows you to retrieve the maximum value that is entered by the user in the Filter panel for the field that has Between operator, such as DateTime field. • FieldName.Operator - allows you to retrieve the operator that is specified by the user for a specific field. There is a possibility that your back-end only handles "Equals" operator. In that case, you can use the FixedOperator="Equals" attribute in the Searched Fields property so that the user can only use the
Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.

Searched Fields

This property defines what fields are displayed in the Search Filter panel.

You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

You can further edit fields using the following elements:

Table 10. Searched Fields

Element	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format. <Fields> <Field Name="fieldName" [optional attributes]/> <!-- To search a cross site lookup field, use one of the following two formats --> <Field Name="fieldName" DisplayFieldName="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> <Field Name="fieldName" DisplayFormat="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> </Fields>
Field Name	Indicates the element you are editing.
Title	Displays title for the field. The value can be a plain string or an encoded HTML string.

Table 10. Searched Fields

Element	Description
Description	Describes the field. This is useful if you want to give a short instruction or explanation about the field.
Default Value	Defines the default value for the field. You can define a text, a number or a date. A date value must be specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ, for example: midnight of February 14, 2002 is 2002-02-14T00:00:00Z.
Default Operator	Defines the default operator for the field.
Fixed Operator	Defines the operator for the field. If specified, the list to select the operator for this field is turned off.
Use People Editor	Enables you to enter any user information that is in your directory service. If you set this to True and the field to be searched is a People and Group field, the Filter panel will show the People Editor control for entering the search criteria.
Column Count	Defines the number of columns for the options in a multi-choice field or in a choice-and-lookup field if the Enable Multi Choice attribute is set to True. This is useful in case your choice or lookup fields have too many choices and you want to break the choices into several columns to minimize the vertical scrolling in your form.
Enable Multi Choice	If selected, allows you to select multiple options for the choice-and-lookup field. Therefore, the user can specify a condition like "A or B". This attribute is ignored by other field types. To search a cross-site lookup field, you must specify one or more List elements inside the Field element. The cross-site lookup field is displayed as two drop downs.
Sort Field	Defines the field that is used to sort the value in the list. The field name is case sensitive.
Sort Order	Allows you to sort the values in ascending or descending order.
AutoPostBack	When selected, causes the Filter panel to refresh when the user changes the selection in a lookup field or cross-site lookup field. You need to set AutoPostBack to true if this field is a lookup or a cross-site lookup field and it is being used to filter another lookup or cross-site lookup field in the Filter panel.
Parent Field	Defines another lookup or cross-site lookup field that is used to filter this field. The parent field must be listed before this field in the XML property.
Parent Filter Field Name	Defines the field in the parent field that is used to filter this field. It is the primary key in the list that is used in the lookup or cross-site lookup field.
Filter Field Name	Defines the field in the list that is used by this lookup or cross-site lookup field that is filtered by the parent filter field.
Display Field Name	Shows the name of the field whose value is displayed in the list. The field name is case sensitive. Use this attribute instead of the Display Format attribute if you only want to display a single field in the list.
Display Format	Indicates the format of the value that is displayed in the list. Define this attribute instead of the Display Field Name attribute if you want to display multiple fields in the drop-down menu. You can use the field replacement expression <%Field%> to refer to a field. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Searched Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. **NOTE:** For more information, see Display Format on page 14.
Site URL	Indicates the Site URL of the field. You can use an absolute or relative URL.
List Name	Indicates the name of the List. The field name is case sensitive.
Site Name	Indicates the name of the site specified in the Site URL. This is used in case you have multiple lists. In this case, the first drop-down menu to select the list will display as "List Name in Site Name". You can use any name for the Site Name. It does not have to match the real title of the Site.

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Views

Actions

The list form has some pre-defined actions, such as Save, Delete, Copy or Move. You can also write your own custom action and hook it up with the list form.

The Actions page contain the following elements:

Table 11. Actions

Element	Description
Custom Actions	For more information, see Custom Actions on page 272.

Custom Actions

This property enables you to define additional buttons in the toolbar or context menu item in the context menu. You can program that button or context menu item to do a series of actions. The List Form supports some built-in actions. However, you can write your own custom action using one of the .NET languages, compile it, and call it by the List Form. See Custom Action Help on page 375 to see how to write your own custom actions.

NOTE: The toolbar button affects all the items that are selected in the List Form. The context menu item affects only the item that is being right-clicked regardless of how many items are selected in your List Form.

Here are some ways that you can use this functionality:

- Add a custom toolbar button called "Assign All to Me" that will assign all of the selected tasks in the List Form to me.
- Add a custom toolbar called "Approve" that will change the status of all of the selected expense items to Approved.
- Create a custom context menu item called "Publish" that will move the right-clicked document into another document library.
- Create a custom context menu item or toolbar item to start a workflow.
- With the ability to write your own custom action, you can virtually do anything to the data when you click the custom button that you define.

NOTE: The custom action in the List Form does not support the Save action.

The Custom Actions element contains one Toolbar element and one Context Menu element. These elements can contain one or more Action Item elements. You can associate the Action Item with one or more Action elements. The Action element define a certain operation that is carried out by the action item when it is clicked. When you add an action item, you can configure the following:

Table 12. Custom Actions

Element	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format. <CustomActions> <Toolbar> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </Toolbar> <ContextMenu> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </ContextMenu> </CustomActions>
IsSeparator	Allows you to set the item as a separator.
ID	Allows you to enter a unique ID that will identify the item. Use a descriptive identifier to configure the action item with the editor.
Text	Allows you to enter how the action item is displayed in the toolbar.

Table 12. Custom Actions

Element	Description
Text Resource ID	Allows you to define this property if you support a a multi-lingual site. This attribute defines the identifier of the string in the Resource List that is used as the title of the Web app. The Text Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the value in the Text attribute is used.
Prompt Text	Allows you to prompt the user to click the toolbar button or the context menu item.
Prompt Text Resource ID	Allows you to define this property if you support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the title of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Access Key (Toolbar Only)	Allows you to define one character from the Text attribute that becomes the access key to this toolbar button or context menu item. For example, if you define a letter T as the access key, you can press ALT+T and the browser will put the focus on this button or context menu item. If there are multiple elements on the page with the same access key, you can repeat ALT+T repeatedly until you get the focus on this toolbar button or context menu item.
Position	Allows you to set the position of the button in the toolbar. The index starts with 0.
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot

When you add an action, you can configure the following:

Element	Description
Name	An optional element which allows you to identify a given action in order to access it from another action. You can refer to this action from the GoToURL action and from ICustomActionEx Interface.

Type	Allows you to determine the type of the action. Here are the options:
	• Delete — deletes the item.
	• GoToURL — redirects the user to a specific URL. You must specify the URL and where you want the URL to open. You must specify the following parameters:
	  • Input - the current user information as the value of the parameter
	  • Session - the name of the session variable where the value comes from when the source is set to Session
	  • HttpRequest - the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter.
	  • ListItem - the value of the parameter is a list item or row
	  • RowFromAnotherWebApp— the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. There are two types of action that can produce an output: an action with Type of ExecuteOperation, and an action with Type of Custom that points to custom action implementation of ICustomActionEx Interface. You do that by defining the SourceName attribute of the action. This is the syntax of the SourceName attribute when you use ResultFormAction source: <ActionName>.<ResultType>[.Name], where ActionName refers to the Name attribute of the action that produces the output, ResultType can be OutParameter (if the action result is returned through one of the out or inout parameter) or RawData - (if the action result is returned as an object). Name is optional. It further designates the object we want to use for the parameter. You do not have to specify the Name when the ResultType is RawData. However, if the ResultType is OutParameter, this name specifies the name of the out or input key value pair.
	  • ResultFromAction - the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem
	  You must define a source name (where in the source you want to get your information from), name (the name of the parameter that is appended to the URL you specified), and Session (the name of the session variable where the value comes from when the source is set to Session)
	• GoToSource — redirects the user to the URL specified in the Source HTTP parameter. The URL to the page must look like: http://...?Source=URL for this option to work.
	• StartWorkflow — starts the specified workflow in the Workflow Name drop-down field. You must select a Workflow name.
	• ReturnToMasterChart — returns the user to the master chart page. You use this action type if this web app is located in the drill down page.
	• Custom — implements your own custom action and call it with this action type. Enter a Class name that implements the ICustomActionEx or ICustomAction interface, or select a class from the drop-down list, if available.

Views

Table 13. Views

Element	Description
Search Session Name	If Turn On List View Link Mode is selected, the SIChartView will retrieve the Viewed Lists and filter criteria from the session under this name. This value must match with the Search Session Name property that you specify in the qListView. If the Turn On List View Link Mode is not selected, the SIChartView uses this search session name to store the search criteria specified in the Search/Filter page.
Display Message from DAO Provider	Allows you to display messages, such as informational messages or warnings at the top of a web app. For more information on DAO providers, see System Integration Developer Guide.
Custom Message Display	See Custom Message Display. Allows you to specify a custom message based on certain conditions. We currently do not support mapping for the messages that the Display Messages From DAO Provider property enables. If you want to edit Custom Message Display in XML format, turn on Advanced Mode. CustomMessageDisplay contains the following properties: • Display When — allows you to set the conditions to display a custom error message. When defining the Display When condition, the following operators are supported: Eq (Equal) Neq (Not Equal) Null, Is Not Null, Begins With, Contains and Matches (for regular expression). • Custom Message — The error message that you want displayed when the Display When condition is set. If a Display When condition is set during runtime but a custom message is not specified, the original message is displayed. If you want to hide the original message, use a blank string or any html code that renders no visible cues, such as , for the CustomMessage attribute. When multiple Custom Message elements are defined for this property, the first Custom Message, whose Display When condition is set, is used. If no conditions are met, an error message from the selected external system is displayed.

Custom Message Display

Allows you to specify a custom message based on certain conditions.

We currently do not support mapping for the messages that the Display Messages From DAO Provider property enables.

If you want to edit Custom Message Display in XML format, turn on Advanced Mode.

CustomMessageDisplay contains the following properties:

- Display When — allows you to set the conditions to display a custom error message. When defining the Display When condition, the following operators are supported: Eq (Equal) Neq (Not Equal) Null, Is Not Null, Begins With, Contains and Matches (for regular expression).
- Custom Message — The error message that you want displayed when the Display When condition is set.

If a Display When condition is set during runtime but a custom message is not specified, the original message is displayed. If you want to hide the original message, use a blank string or any html code that renders no visible cues, such as   , for the CustomMessage attribute.

When multiple Custom Message elements are defined for this property, the first Custom Message, whose Display When condition is set, is used.

If no conditions are met, an error message from the selected external system is displayed.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Chart
- Toolbar
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 14. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Chart

The Chart Page allows you to define characteristics of your charts.

Chart Appearance contains the following elements

Table 15. Chart Appearance

Element	Description
Chart Width	Allows you to specify the width of the chart in pixels.
Chart Height	Allows you to specify the height of the chart in pixels.
Chart Attributes	For more information, see Chart Attributes on page 277.
Trend Lines	For more information, see Trend Lines on page 296.
Style	For more information, see Styles on page 297.
Series Appearance	For more information, see Series Appearance on page 303.

Chart Attributes

Advanced Mode

Turn on Advanced Mode if you want to edit Chart Attributes in XML format.

Title and Axis Name

The Chart View allows you to add a caption, sub-caption, x-axis title, and y-axis title for your charts. You can configure the font properties for each of them individually or collectively. You can also apply styles and animation effects to them.

Table 16. Title and Axis

Element	Description
Caption	Allows you to add a title.
Sub-caption	Allows you to add a subtitle to your chart.
X-Axis Name	Allows you to set the x-axis name.

Table 16. Title and Axis

Element	Description
Y-Axis Name	Allows you to seta y-axis name.
Rotate Y Axis Name	Allows you to set rotate the name of the y-axis. The y-axis name is rotated by default on the chart. If you're using UTF-8 characters, those characters would not appear in rotated mode, as the qSIChartView uses embedded characters for rotation. In that case, you can opt to show y-axis name in horizontal form by setting this attribute to false.
Y Axis Name Width	Allows you to set the maximum width that the non-rotated y-axis title can assume.

Border and Background

Background refers to the entire background of the chart.

You can also have a border around the chart. By default, the border is on in 2D charts and off in 3D Charts.

Shown below is a chart with a border around the chart.

Figure 2. Border around chart

Table 17. Border and Background

Element	Description
Show Border	Allows you to show a border around the chart. By default, it is set to true in 2D charts and false in 3D charts.
Border Color	Allows you to set the border color of the chart. Use hex color code. To use the color picker, click on the color swatch square.
Border Thickness	Allows you to set the border thickness of the chart (in pixels).
Border Alpha	Allows you to set the border alpha (transparency) of the chart. The range is from 0-100.
Background Color	Allows you to fill the background as gradient. If you need to define two (or more) colors, separate them by a comma.
Background Alpha	Allows you to specify a respective alpha (transparency) for each color code that you've specified in the Background Color attribute, Separate the alphas by comma. The range is from 0-100
Background Ratio	Allows you to set the ratio of each color in the gradient on a scale of 100. The total ratios specified as this attribute should sum up to 100. For example, if you want to plot a equidistant gradient for 2 colors, specify Background Ratio as "0,100".
Background Angle	Allows you to set the angle of the gradient fill.

Table 17. Border and Background

Element	Description
Background Image or SWF URL	Allows you to specify an external image (GIF,JPEG, or PNG only) or a SWF file as the background of the chart. Specify the URL (with relative path) of the background image or SWF File. Make sure that the image and the chart SWF file are in the same sub-domain. If you specify an absolute URL, the background image will not be shown.
Background Image or SWF Alpha	Allows you to configure the alpha of the background (loaded) image using this property.

Chart Canvas

Canvas refers to the area in which the chart is plotted.

Figure 3. Canvas

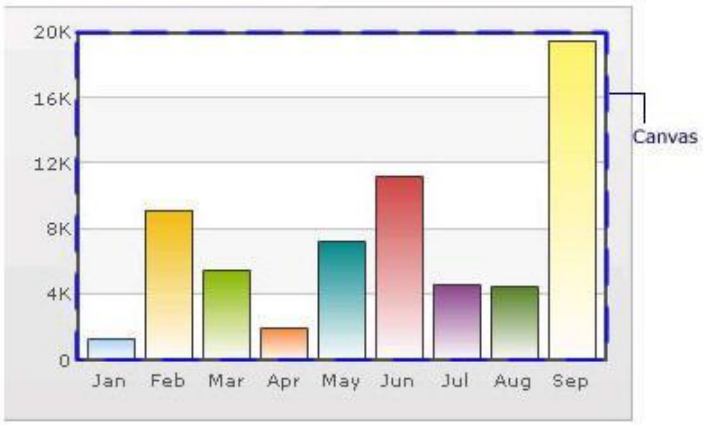


Table 18. Canvas

Element	Description
Canvas Border Color	Allows you set the border color for the Canvas. Use hex color code. To use the color picker, click on the color swatch square.
Canvas Border Thickness	Allows you set thickness of canvas border (in pixels)
Canvas Border Alpha	Allows you set alpha for canvas border.
Canvas Background Color	Allows you set the background color for the Canvas. Use hex color code. To use a gradient fill, specify all the colors of the gradient separated by commas.
Canvas Background Alpha	Allows you to specify a respective alpha (transparency) for each color code that you've specified in Canvas Background Color attribute. Separate the alphas by comma.
Canvas Background Ratio	Allows you to set the ratio of each color in the gradient on a scale of 100. The total ratios specified as this attribute should sum up to 100. For example, if you want to plot a equidistant gradient for 2 colors, specify canvasbgRatio as "0,100".
Canvas Background Angle	Allows you to set the angle of the gradient fill (in degrees - 0-360).
Show Canvas Background	Allows you to set the canvas background for a 3D chart (and canvas).
Show Canvas Base	Allows you to set the canvas base for a 3D chart (and canvas).
Canvas Background Depth	Allows you to set the depth of canvas background for a 3D chart (and canvas).
Canvas Base Depth	Allows you to set the height of canvas base (in pixels) for a 3D chart (and canvas).

Data Plot

Plot refers to the column, lines in a column, line chart respectively.

For all the charts, you can specify custom color for each data plot using the color attribute of <set /> element. The color must be in hex code format (RRGGBB) without #.

```
<chart ....>
   <set label='Jan' value='420000' color='FF0000'/>
   <set label='Feb' value='910000' color='00FF00'/>
   <set label='Mar' value='720000' color='0000FF'/>
   ....
</chart>
```

Figure 4. Data Plot

By default, most charts have FFFFFF as the plot gradient color. If you wish to use solid fills for the column (or area), use the Plot Gradient Color attribute without any color defined for it, that is, plotGradientColor="

```
<chart plotGradientColor='' ....>
   <set label='Jan' value='420000' color='FF0000'/>
   <set label='Feb' value='910000' color='00FF00'/>
   <set label='Mar' value='720000' color='0000FF'/>
   ....
</chart>
```

Figure 5. Data Plot with solid fills

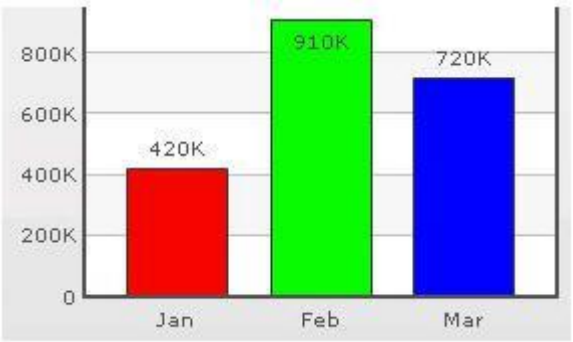


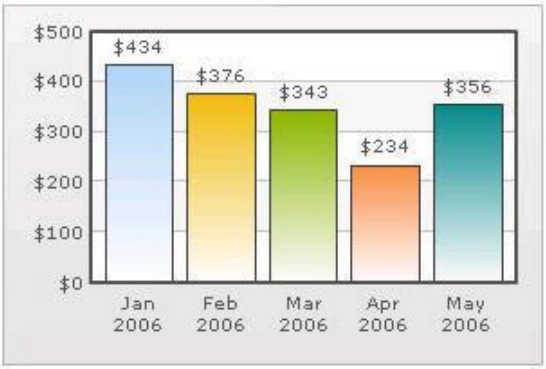
Table 19. Data Plot

Element	Description
Plot Gradient Color	Allows you to globally add a gradient color to the entire plot (column, area) of chart by specifying a color as its attribute.
Plot Fill Angle	Allows you set the fill angle for gradient if you've opted to fill the plot (column, area) as gradient. The range is from 0 - 360.
Plot Fill Ratio	Allows you set the ration for gradient if you've opted to fill the plot (column, area) as gradient. The range is from 0 - 100.
Plot Fill Alpha	Allows you set the fill alpha for gradient if you've opted to fill the plot (column, area) as gradient.
Show Plot Border	Allows you to show or hide the plot border. By default, each data plot (column, area, pie) shows a border.
Plot Border Dashed	Allows you to make the plot border dashed by setting this attribute to true.
Plot Border Dash Length	Allows you to set the length of each dash.
Plot Border Dash Gap	Allows you to set the gap between each dash.
Use Round Edges	Allows you to plot columns/bars with rounded edges and glass effect gradients in charts that support 2D Columns or Bars (like column charts, bar charts, 2D combination charts). **NOTE:** In this mode, the following features do not work: • When you plot the columns with rounded edges, shadow is applied to them by default and show Shadow attribute no longer works. If you want to remove shadow from this mode, override the shadow with a new shadow style (applied to DATAPLOT) with alpha as 0. • Plot fill properties like gradient color, angle. no longer work as the colors for gradient are now calculated by the chart itself. • Plot border properties no longer work in this mode. Also, you cannot render the border as dash in this mode.

Data Labels

Data labels refer to the names for the data points that appear on the x-axis.

Figure 6. Data Labels



In the chart shown above, the dates are the data labels for the chart. By default, they get wrapped when there is not enough space on the chart.

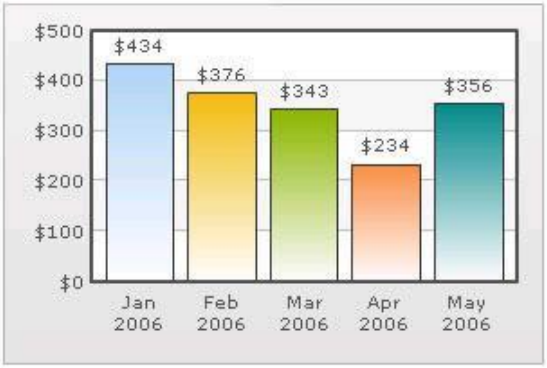
Table 20. Data Labels

Element	Description
Show Labels	Allows you to show the data labels.
Label Display	Allows you to display the data labels can be displayed on the charts in the following ways: • Wrap — By default, all the labels are shown in wrap mode, which enables you to wrap your long x-axis labels in multiple lines. • Rotate — allows you to rotate or slant the x-axis labels. • Stagger — distributes labels into multiple lines (by default 2). **NOTE:** Rotate mode does not work if you have non-English characters in your x-axis labels as the charts use embedded fonts to render rotated labels.
Slant Labels	Allows you to slant the labels at 45 degrees if you are using the Rotate mode for the Label Display.
Stagger Lines	Allows you to choose the number of lines to stagger the labels if you are using the Stagger mode for the Label Display.
Label Step	Allows you to show every n-th label instead of all labels if your X Axis labels represent a continuous quantity like time and date.

Data Values

Data values refer to the plot values such as line, column, and bar displayed beside it.

Figure 7. Data Values



In the chart shown above, the dollar values appearing above the column are the data values.

Table 21. Data Values

Element	Description
Show Values	Allows you to show data values. By default, the data values are shown. To hide them, set this attribute to false.
Rotate Values	Allows you to rotate the values. By default, the chart will show the data values horizontally.
Place Values Inside	Allows you to place the data values inside the columns.

External Logo

You can load external logos at run-time to be displayed over the chart. The logos can be GIF/JPEG/PNG or SWF files that reside on the same sub-domain as the chart SWF.

Figure 8. External Logo

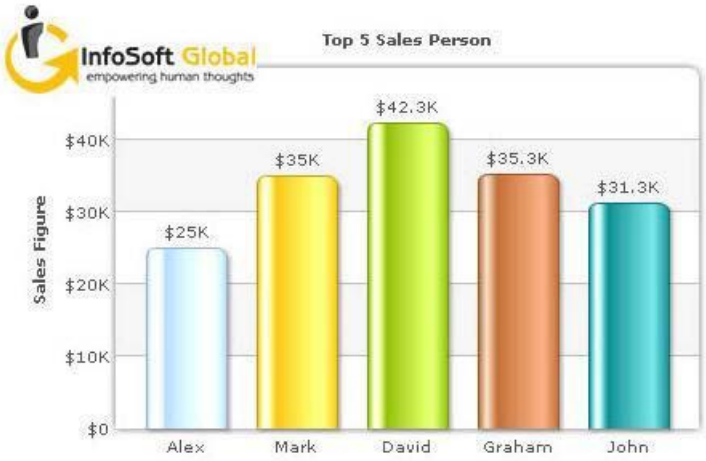


Table 22. External Logo

Element	Description
Logo URL	Allows you to specify the URL of the logo. You may use relative or absolute URL as long as the image and the chart SWF file are in the same sub-domain.
Logo Position	Allows you to set the position of the logo can be configured using this attribute.
Logo Alpha	Allows you to set the opacity of the logo once it has loaded.
Logo Scale	Allows you to set the scale of the logo, once it has loaded. The scale of 100 will display the logo in its original size. The scale of less than 100 will shrink the logo. The scale of more than 100 will enlarge the logo.
Logo Link	Allows you to link the logo to an external URL. This link can open in same window, new window, pop-up windows or frames. For information on how to format the link, see Trend Lines on page 296.

Font Properties

You can specify generic font properties for all the text on the chart using the attributes given below.

Table 23. Font Properties

Element	Description
Base Font Name	Allows you set the font face (family) of all the text (data labels, values) on chart. If you specify Outside Canvas Base Font Name attribute also, then this attribute controls only the font face of text within the chart canvas bounds.
Base Font Size	Allows you to set the base font size of the chart, that is, all the values and the names in the chart that lie on the canvas are displayed using the font size provided here. The range is from 0 - 72.
Base Font Color	Allows you to set the base font color of the chart, that is, all the values and the names in the chart that lie on the canvas are displayed using the font color provided here. Use hex color code. To use the color picker, click on the color swatch square.
Outside Canvas Base Font Name	Allows you classify all the text in the chart into 2: the text inside the canvas which consists of only the tool tip and the data values and all the text outside the canvas. You can define a base font group for all the text outside the canvas as well. This attribute sets the base font family of the chart font which lies outside the canvas, that is, all the values and the names in the chart that lie outside the canvas are displayed using the font name provided here.

Table 23. Font Properties

Element	Description
Outside Canvas Base Font Size	Allows you to set the base font size of the chart, that is, all the values and the names in the chart that lie outside the canvas are displayed using the font size provided here. The range is from 0 - 72
Outside Canvas Base Font Color	Allows you to set the base font color of the chart, that is, all the values and the names in the chart that lie outside the canvas are displayed using the font color provided here.

Chart Palettes

qSIChartView offers 5 palettes. The palette theme configures colors of the following:

- Background and border
- Canvas border and background
- Fonts
- 4Div lines
- Tooltip
- Anchors
- Legend

The internal palette does not cover the color of the data items. To change the color of the data items, use the Palette Colors attribute or Series Appearance property.

Table 24. Chart Palettes

Element	Description
Palette	Allows you to select the palette number.
Palette Colors	Allows you to specify your own palette for data items by providing a list of hex colors.

Y Axis

Chart limits are the minimum and maximum y-axis values. qSIChartView automatically calculates the best chart limits when you do not specify them explicitly.

Table 25. Y Axix

Element	Description
Y Axis Min Value	Allows you to set the chart limits explicitly.
Y Axis Max Value	Allows you to set the chart limits explicitly. NOTE: The Y Axis Max Value must be bigger than any of the values in the data series. Otherwise, the value will not be honored by the chart view.
Set Adaptive Y Min	Allows you to set whether the y-axis lower limit would be 0 (in case of all positive values on chart) or should the y-axis lower limit adapt itself to a different figure based on values provided to the chart.
Primary Y Axis Min Value	Allows you to explicitly set the lower limit of the primary y-axis. If you do not specify this value, it is automatically calculated by qSIChartView based on the data provided by you.
Primary Y Axis Max Value	Allows you to explicitly set the upper limit of the primary y-axis. If you do not specify this value, it is automatically calculated by qSIChartView based on the data provided by you.
Secondary Y Axis Min Value	Allows you to explicitly set the lower limit of the secondary y-axis. If you do not specify this value, it is automatically calculated by qSIChartView based on the data provided by you.

Table 25. Y Axix

Element	Description
Secondary Y Axis Max Value	Allows you to explicitly set the upper limit of the secondary y-axis. If you do not specify this value, it is automatically calculated by qSIChartView based on the data provided by you.
Primary Y Axis Name	Allows you to set the primary y-axis title.
Secondary Y Axis Name	Allows you to set the secondary y-axis title.
Set Adaptive Secondary Y Min	Allows you to set whether the secondary y-axis lower limit would be 0 (in case of all positive values on chart) or should the y-axis lower limit adapt itself to a different figure based on values provided to the chart.
Primary Y Axis Name Width	Allows you to set choose a maximum width (in pixels) that is applied to primary y-axis name, if you do not rotate y-axis name.
Secondary Y Axis Name Width	If you opt to not rotate y-axis name, you can choose a maximum width (in pixels) that is applied to secondary y-axis name.

Division Lines

Divisional lines are horizontal lines running through the canvas. They break up the y axis into smaller units helping in better visual data interpretation.

Figure 9. Division Lines

Table 26. Division Lines

Element	Description
Adjust Division Lines	Allows you to explicitly specify the y-axis upper and lower limit values, and also the number of divisional lines. In those cases, you need to automatic adjustment of divisional lines by setting this attribute to false. Then you can specify the y-axis upper and lower limits using the Y Axis Max Value and Y Axis Min Value attributes respectively.
Number of Division Lines	Allows you to set the number of divisional lines.
Div Line Effect	Allows you to enable to apply an effect, for example, EMBOSS, or BEVEL to the divisional lines. This attribute is applicable to MultiSeriesCombination3D chart type only.
Show Y Axis Values	Allows you to show all the y-axis values.
Y Axis Values Step	Allows you to skip every nth Y Axis value.
Division Lines	Allows you to set the color for divisional lines.
Division Lines Thickness	Allows you to set the thickness of divisional lines. The range is from 1 - 5.

Table 26. Division Lines

Element	Description
Division Lines Alpha	Allows you to set the alpha of divisional lines. The range is from 0 - 100.
Is Dashed	Allows you to set the divisional line to be dashed.
Division Lines Dash Length	Allows you to set the length of each dash.
Division Lines Dash Gap	Allows you to set the gap between each dash.
Show Alternate H Grid Color	Allows you to set the horizontal grid bands alternately between the divisional lines for all 2D charts. They can be hidden by setting this attribute to false.
Alternate H Grid Color	Allows you to set the color of the horizontal grid bands.
Alternate H Grid Alpha	Allows you to set the alpha of the horizontal grid bands. The range is from 0 - 100.
Vertical Div Lines	Allows you to set the vertical divisional lines running through the canvas in a line/area chart. They help in relating the data to its respective label, when there is a large amount of data.
Number of Vertical Div Lines	Allows you to set the number of vertical div lines.
Vertical Div Lines Color	Allows you to set the color of the vertical axis division lines.
Vertical Div Lines Thickness	Allows you to set the thickness of the vertical axis division lines in pixels.
Vertical Div Lines Alpha	Allows you to set the alpha of vertical axis division lines. The range is from 0 - 100.
Is Dashed	Allows you to set the vertical axis division lines as dashed.
Vertical Div Lines Dash Length	Allows you to set the length of each dash.
Vertical Div Lines Dash Gap	Allows you to set the gap between each dash.
Show Alternate V Grid Color	Allows you to set the vertical grid bands alternately between the vertical divisional lines.
Alternate V Grid Color	Allows you to set the color of the alternate vertical grid bands.
Alternate V Grid Alpha	Allows you to set the alpha (transparency) of the alternate vertical grid bands.
Show V Line Label Border	Allows you to set the borders for all labels for vLines in the chart. If you want to show label border for just a particular vLine, you can override this value by specifying border configuration for that specific vLine.

Zero Plane

Zero plane is a plane which separates the positive and negative numbers on a chart having both of them.

Figure 10. Zero Plane

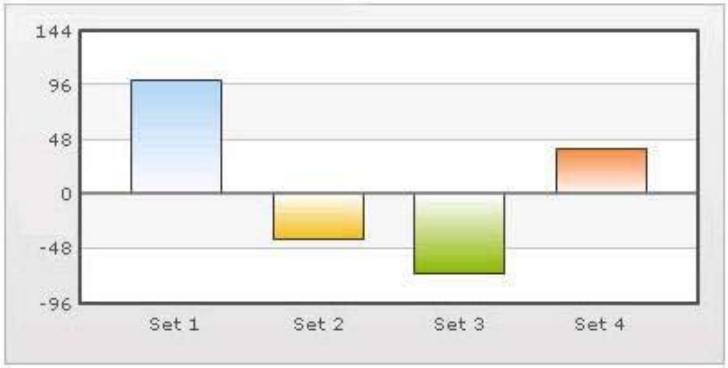


Table 27. Zero Plane

element	description
Show Zero Plane	Allows you set the zero plane in the column, line, and the area chart. It can be removed in the line chart but not in the column or the area chart because they use this as their base to draw. It can be removed in the line chart by setting this attribute to false.
Zero Plane Color	Allows you set the color of the zero plane.
Zero Plane Alpha	Allows you set the alpha (transparency) of the zero plane. The range is from 0 - 100.
Zero Plane Thickness	Allows you set the thickness of the zero plane in pixels.
Zero Plane Show Border	Allows you set the whether to show border of zero plane for a 3D chart.
Zero Plane Border Color	Allows you set the border color of zero plane for a 3D chart.
Zero Plane Mesh	Allows you set the whether to draw the zero plane as a wireframe mesh or as a filled plane. If set to true, a mesh on the zero plane of the chart is drawn. This attribute is applicable to MultiSeriesCombination3D chart type only.

Anchors

Each data point in a line or area chart is represented by an anchor. The anchors help identify the data point better in the chart. They also show a tool tip showing the data point details when the mouse is hovered over them, and can be linked to other pages as well.

Figure 11. Anchors

Table 28. Anchors

Element	Description
Draw Anchors	Allows you show the anchors. The anchors are displayed by default. To hide them, set this attribute to false. Once the anchors are hidden, the tool tips for the data points will not be displayed and the links will not work.
Anchor Alpha	Allows you set the alpha of entire anchors. The range is from 0 - 100. If you need to hide the anchors but still have tool tip and link, set Anchor Alpha to '0'
Anchor Sides	Allows you to set the number of sides the anchor will have. For example, an anchor with 3 sides would represent a triangle, with 4 it would be a square. The range is from 3 - 20.
Anchor Radius	Allows you to set the radius (in pixels) of the anchor. The greater the radius, the bigger the anchor size.
Anchor Border Color	Allows you to set the border color of anchors.

Table 28. Anchors

Element	Description
Anchor Border Thickness	Allows you to set the border thickness (in pixels) of the anchors.
Anchor Background Color	Allows you to set the background color of anchors.
Anchor Background Alpha	Allows you to set the alpha of anchor background. The range is from 0 - 100.

Tool Tip

A tool tip is shown when the mouse is hovered over a particular data point. It shows the following information:

- Single series chart (except pie & doughnut): Name & value
- Pie & Doughnut: Name & value/percentage
- Multi-series & combination chart: Series Name, Category Name, Data Value

Figure 12. Tool Tip

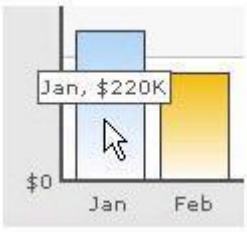


Table 29. Tool Tip

Element	Description
Show Tool Tip	Allows you to set the tool tip.
Show Tool Tip Shadow	Allows you to show the tool tip shadow.
Tool Tip Border Color	Allows you to customize the border color of the tool tip.
Tool Tip Background Color	Allows you to customize the background color of the tool tip.
Tool Tip Separator Character	Allows you to specify a character to separate the name and value displayed in tool tip.
Series Name in Tool Tip	Allows you to control whether series name will appear in the tool tip. For multi-series and combination charts, qSIChartView shows the following information in tool tip (unless tool text is explicitly defined): "Series Name, Category Name, Data Value".
Show Percent In Tool Tip	Allows you to show percentage values in Tool Tip for Pie or Doughnut chart. By default, the Pie or Doughnut chart shows percentage values in Tool Tip.

Paddings and Margins

qSIChartView lets you define various paddings and margins using pixels. These attributes are listed one-by-one below.

By default, qSIChartView provides some padding between the chart border and the canvas. This is called the chart margin and each margin can be set individually.

Figure 13. Paddings and Margins

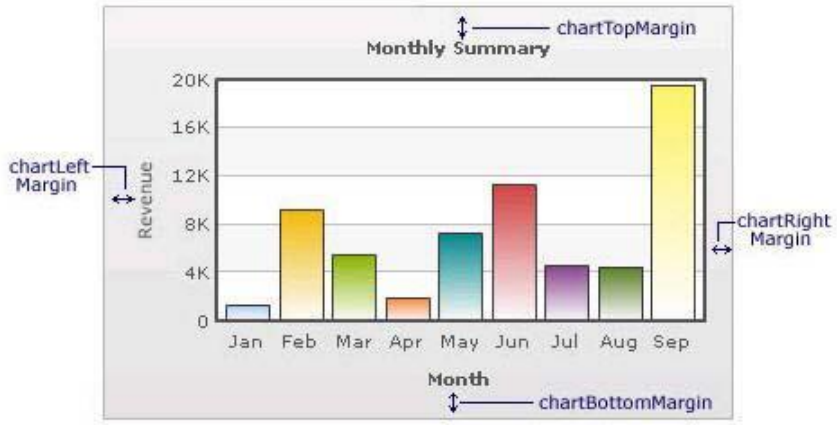


Table 30. Paddings and Margins

Element	Description
Left Margin	Allows you to set the amount of empty space on the left side of your chart. Nothing is rendered in this space.
Right Margin	Allows you to set the amount of empty space on the right side of your chart. Nothing is rendered in this space.
Top Margin	Allows you to set the amount of empty space ton the top of your chart. Nothing is rendered in this space.
Bottom Margin	Allows you to set the amount of empty space on the bottom of your chart. Nothing is rendered in this space.
Canvas Left Margin	Allows you to set the amount of empty space on the left side of the canvas. Nothing is rendered in this space.
Canvas Right Margin	Allows you to set the amount of empty space on the right side of the canvas. Nothing is rendered in this space.
Canvas Top Margin	Allows you to set the amount of empty space t on the top of the canvas. Nothing is rendered in this space.
Canvas Bottom Margin	Allows you to set the amount of empty space on the bottom of the canvas. Nothing is rendered in this space.
Caption Padding	Allows you to set the amount of space between the caption of the chart and the top of the chart canvas. If you have a sub-caption defined in the chart, it controls the space between the sub-caption and the top of the chart canvas.
X Label Gap	Allows you to set the vertical space between the labels and canvas wall edge. If you want more space between the canvas and the x-axis labels, you can use this attribute to control it.
Y Label Gap	Allows you set the horizontal space between the canvas wall edge and the y-axis values or trend line values (on left/right side). This is particularly useful, when you want more space between your canvas and y-axis values.
X Axis Name Padding	Allows you to set the distance between the top of x-axis title and the bottom of data labels (or canvas, if data labels are not shown).
Y Axis Name Padding	Allows you to set the padding between the y-axis name and values.
Y Axis Values Padding	Allows you to set the padding between the left end of the chart canvas and the y-axis values.
Label Padding	Allows you to set the vertical space between the canvas bottom edge and the data labels.
Value Padding	Allows you to control the space between your columns/anchors and the value textboxes.

Table 30. Paddings and Margins

Element	Description
Canvas Padding	For a line/area chart, allows you to set the padding between the canvas border and the position where the line/area chart begins to draw is called canvas padding.
Plot Space Percent	On a column chart, allows you to set the spacing between two columns. By default, the spacing is set to 20% of canvas width. For example, if you wanted all columns to stick to each other without any space in between, you can set plotSpacePercent to 0. Similarly, if you want very thin columns, you can set plotSpacePercent to its max value of 80.

Smart Labels and Lines

Smart labels are the labels for the pie/doughnut chart. The smart labels prevent overlapping of labels even when large number of labels are placed in close vicinity.

Figure 14. Smart Labels and Lines

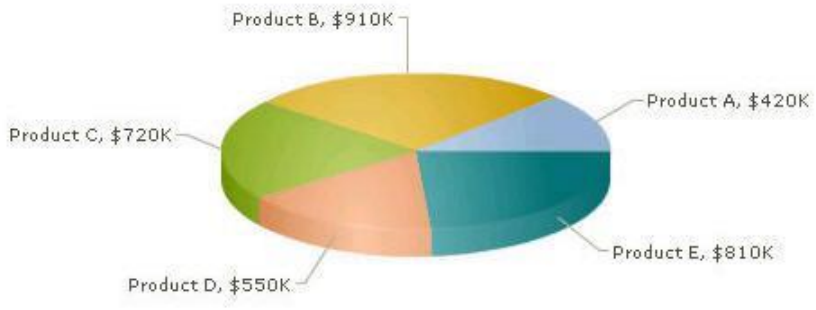


Table 31. Smart Labels and Lines

Element	Description
Enable Smart Labels	Allows you to enable the smart labels (if required to save chart space or when there are few pie segments). When the smart labels are switched off, the pie labels would be displayed without the smart label lines. But if they number of labels increases and smart labels are not being used, then the labels might overlap.
Smart Line Color	Allows you to set the color of smart label connector lines.
Smart Line Thickness	Allows you to set the thickness (in pixels) of smart label connector lines.
Smart Line Alpha	Allows you to set the alpha (transparency) of smart label connector lines. The range is 0 - 100.
Is Smart Line Slanted	Allows you to set the smart lines (smart label connector lines) in two ways: Slanted or Straight.
Label Distance	Allows you to set the distance of the label/value text boxes from the pie/doughnut edge in pixels. You must set Enable Smart Labels to false for this attribute to take effect.
Smart Label Clearance	Allows you to set the clearance distance of a label (for sliced-in pies) from adjacent sliced out pies in pixels.
Skip Overlap Labels	Allows you to skip the overlapping labels if you have too many labels in your pie chart (which is difficult to adjust even using smart labels). In that case, you have the option to set this attribute to true. The labels of the least significant pies would be removed.
Show Percent Values	Allows you to set the actual value of the pie segment to be displayed in the label or the percentage value. By default, the actual values are displayed. When you want to display their percentages, set this attribute to true.

Legend

In multi-series/combination charts, the series name of each dataset shows up in the legend of the chart. This helps you relate a data plot to its series name using its color. The legend does not appear for single-series charts because there is only one series in the chart.

Figure 15. Legend

The legend below the chart helps identify the series name.

Table 32. Legend

Element	Description
Show Legend	Allows you to show the legend.
Interactive Legend	Allows you to make the legend interactive. Interactive Legend only works for a combination chart. In the combination chart, you can click the legend to show/hide the values of the data items. If you set Interactive Legend to false, then legend will not be interactive.
Legend Caption	Allows you to add a caption for the entire legend by setting the same here.
Legend Marker Circle	Allows you to use square legend keys or circular ones.
Reverse Legend	Allows you to reverse the order of items in legend.
Legend Position	Allows you to place the legend in 2 positions: RIGHT and BOTTOM. It gets placed below the canvas by default. To place it to the right of the chart canvas, set Legend Position = 'RIGHT'.
Allow Drag	Allows you to make the legend dragable. End viewers of the chart can drag the legend around on the chart.
Legend Background Color	Allows you to set the background color for the legend.
Legend Background Alpha	Allows you to set the background alpha (transparency) for the legend. The range is 0 - 100.
Legend Border Color	Allows you to set the border color for the legend.
Legend Border Thickness	Allows you to set the border thickness, in pixels, for the legend.
Legend Border Alpha	Allows you to set the border alpha for the legend. The range is 0 - 100.
Legend Shadow	Allows you to set a shadow for legend.
Legend Scroll Background Color	Allows you to set the background color of the scroll bar. If you've too many items on the legend, a scroll bar appears.
Legend Scroll Bar Color	Allows you to set the bar color of the scroll bar. If you've too many items on the legend, a scroll bar shows up on the same.
Legend Scroll Button Color	Allows you to set the color of buttons on the scroll bar. If you've too many items on the legend, a scroll bar shows up on the same.If you've too many items on the legend, a scroll bar shows up on the same.

Number Formatting

qSIChartView offers you a lot of options to format your numbers on the chart from number prefixes and suffixes to controlling the decimal places to scaling your numbers based on a pre-defined scale.

Table 33. Number Formatting

Element	Description
Format Number	Allows you to determine whether the numbers displayed on the chart are formatted using commas, for example, 40,000 if Format Number is true and 40000 if Format Number is false.
Format Number Scale	Allows you to determine whether to add K (thousands) and M (millions) to a number after truncating and rounding it - for example, if Format Number Scale is set true, 1043 would become 1.04K (with decimals set to 2 places). Same with numbers in millions - a M will added at the end.
Default Number Scale	Allows you to set the default unit of the numbers that you are providing to the chart.
Number Scale Unit	Allows you to set the unit of each block of the scale.
Number Scale Value	Allows you to set the range of the various blocks that constitute the scale.
Number Prefix	Allows you to add a prefix to all the numbers visible on the graph. For example, to represent all dollars figure on the chart, you could specify this attribute to ' $' to show like $40000, $50000.
Number Suffix	Allows you to add a suffix to all the numbers visible on the graph. For example, to represent all figure quantified as per annum on the chart, you could specify this attribute to ' /a' to show like 40000/a, 50000/a.
Decimal Separator	Allows you to specify the character to be used as the decimal separator in a number.
Thousand Separator	Allows you to specify the character to be used as the thousands separator in a number.
In Decimal Separator	Allows you to input the decimal separator.
In Thousand Separator	Allows you to input the thousand separator.
Decimals	Allows you to set the number of decimal places to which all numbers on the chart would be rounded. The range is from 0 - 10.
Force Decimals	Allows you to add 0 padding at the end of decimal numbers. For example, if you set decimals as 2 and a number is 23.4. If force Decimals is set to 1, qSIChartView will convert the number to 23.40 (note the extra 0 at the end).
Y Axis Value Decimals	Allows you to specify the div line values decimal precision. The range is from 0 - 10.

3D Chart Attributes

The 3D Combination chart is a true 3D chart which offers features such as viewing from a specific camera angle, definition of light source, use of dynamic lighting, and rotation.

The various elements of a 3D Combination chart are shown below:

Figure 16. 3D Charts

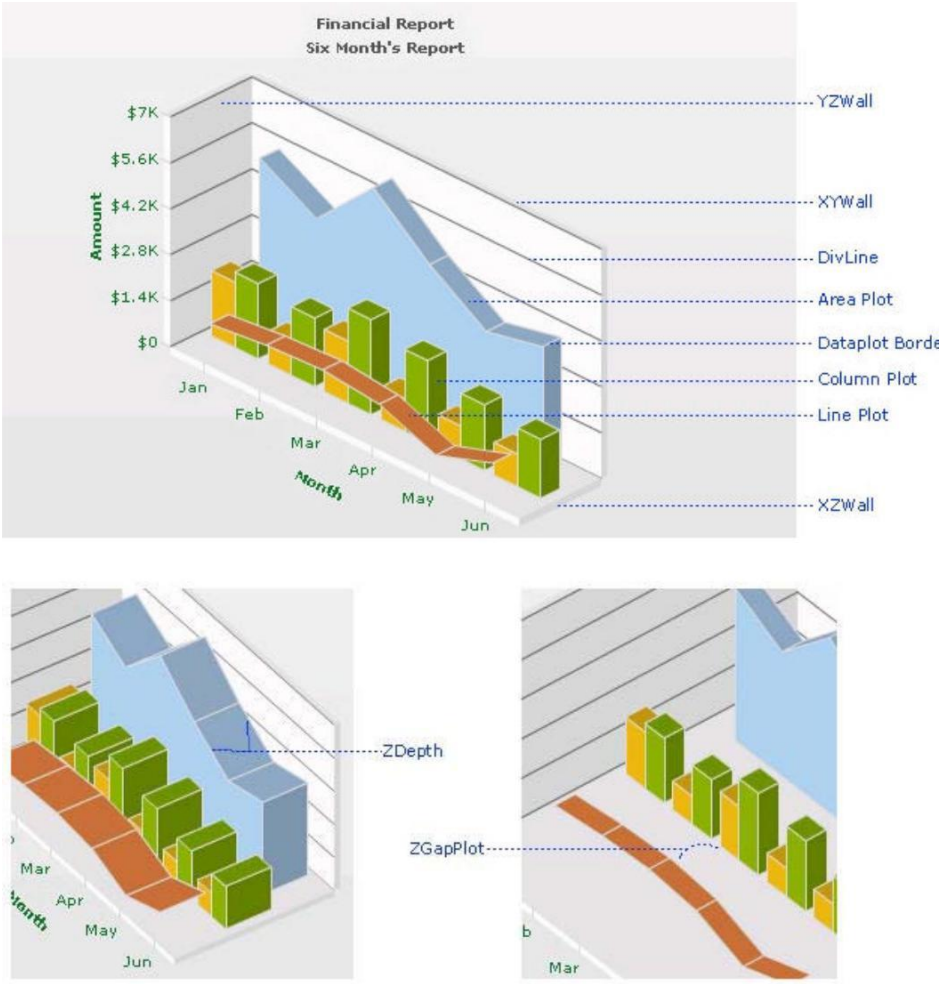


Table 34. 3D Charts

Element	Description
Is 2D	Allows you to decide whether initially to draw a 2D view of the chart.
Chart Order	Allows you to set the order by which different types of charts will appear. The value can be any combination of 'column', 'line' or 'area', each separated by a comma. By default, the order is: line, column, area. You can change to any order you like, for example, 'column, area, line' or 'line, area'.
Chart On Top	Allows you to decide whether or not the chart canvas is placed over the extra chart elements (caption, subcaption, legend). This feature is visible when the chart canvas is zoomed/scaled. +
Auto Scaling	Allows you to decide whether or not the chart is allowed to best fit automatically after a user interaction, for example, rotation.
Allow Scaling	Allows you to set whether to allow zoom-in/zoom-out. **NOTE:** Scaling or use of mouse is compatible only with Windows Operating System.

Table 34. 3D Charts

Element	Description
Animate 3D	Allows you to show the initial plot animation. By default, the 3D chart is rendered with a default animation. To globally set off all animation set Animation to false. This would not only set off 3D animations, but also disable all animations applied using <styles>. The additional use of Animate 3D can override this value. Hence, a combination of Animation = false and Animate 3D = true would disable all animations applied using <styles> but, enable animation of the 3D canvas.
Exe Time	Allows you to set the time that the chart takes to animate. This attribute also sets the time taken by the chart canvas to animate when the chart is transformed to any view (View3D, View 2D, Reset View).
Camera Angle X/Camera Angle Y	Allows you to define the camera angle. • Camera Angle X lets you specify the camera angle (for view around the chart vertically) from which the chart is viewed initially in no animation mode (when animate3D='0) . If not specified, the default value is 30. The range is from 0 to 360 and 0 to -360. • Camera Angle Y lets you specify the camera angle (for view around the chart horizontally) from which the chart is viewed initially in no animation mode (when animate3D='0). If not specified, the default value is -45. The range is from 0 to 360 and 0 to -360. Since this is a true 3D chart, it's rendered as a 3D model that is viewed from a specific camera angle. The camera can simply be defined as the eye of a real viewer. When you have set Animate 3D to 0, you can define the camera angle using two attributes - Camera Angle X and Camera Angle Y. When you use animation, you can also set up the starting camera view from which the camera view starts animating, and the final camera view to which the chart would finally be rotated. For this, you need to use Start Angle X, Start Angle Y, End Angle X and End Angle Y attributes.
Start Angle X/End Angle X	Start Angle X — Allows you to specify the view angle (for view around the chart vertically) at which rotation of the chart starts (when the chart is initialized). The rotation stops at endAngX. If not specified, the default values for both the attributes are 30. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1'). End Angle X — Allows you to specify the view angle (for view around the chart vertically) at which rotation of the chart ends (when the chart is initialized). The rotation starts at startAngX. If not specified, the default values for both the attributes are 30. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1').
Start Angle Y/End Angle Y	Start Angle Y — Allows you to specify the view angle (for view around the chart horizontally) from which rotation of the chart starts (when the chart is initialized). The rotation stops at endAngY. If not specified, the default values for both the attributes are -45. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1'). End Angle Y — Allows you to specify the view angle (for view around the chart horizontally) at which rotation of the chart ends (when the chart is initialized). The rotation starts at startAngY. If not specified, the default values for both the attributes are -45. The range is from 0 to 360 and 0 to -360. This is for animated charts (when animate3D='1').
Light Angle X/Light Angle Y	Light Angle X — Allows you to specify the angular position of the light source (for X-axis) w.r.t the chart world coordinate system. The range is from 0 to 360 and 0 to -360. Light Angle Y — Allows you to specify the angular position of the light source (for Y-axis) w.r.t the chart world coordinate system. The range is from 0 to 360 and 0 to -360.

Table 34. 3D Charts

Element	Description
Intensity	Allows you to control the intensity of the light that falls on the chart elements. The range of this attribute lies between 0 to 10. 10 would provide light with maximum intensity, and you will get the brightest view of the chart. If you set the value to 0, light is provided with least intensity. However, the chart will never appear in full darkness even you set intensity to 0. A faint light is always made available. By default, the value is set to 2.5.
Dynamic Shading	Allows you to set the chart in dynamic shading/non-world mode. If set to false, the chart is in world mode. For example, you can have a Combination 3D Chart that has two different lighting systems to light up the chart elements. The light source may be fixed outside the chart. This causes only those sides of the chart to get the light which face the light source. Thus, when the chart is manually rotated, dynamic shades are created on the chart surfaces. This system of lighting is called dynamic shading. World lighting is where the light source is fixed with the chart. In this case, the light source rotates with the rotation of the chart. Hence, the surface facing the light source gets lightened and continues to be in the bright side despite any manual rotation of the chart being made, whereas the surface not facing the light keeps remaining in darkness with every chart rotation.
Bright 2D	Allows you to set maximum brightness to the chart while being rendered in 2D mode. This is applicable only when you've set Dynamic Shading to true. However, once you set this attribute to true, you cannot use Light Angle X and Light Angle Y attributes. Rather, it automatically sets up the light sources to give the brightest view of the chart in 2D mode.
Allow Rotation	Allows you to decide whether to stop any user interactive rotation of the chart or not. If it is set to false, the interactive rotation is barred.
Constrain Vertical Rotation	Allows you to rotate up to 90 degrees (top or bottom) from 0 degree position. You can also specify these limits using Minimum Vertical Rotation Angle and Maximum Vertical Rotation Angle attributes. This is only applicable to user's mouse interactively with the chart.
Minimum Vertical Rotation Angle	Allows you to set the minimum allowed angle up to which a user can rotate the chart vertically. This is only applicable to user's mouse interactively with the chart.
Maximum Horizontal Rotation Angle	Allows you to set the maximum allowed angle up to which a user can rotate the chart horizontally. This is only applicable to user's mouse interactively with the chart.
Z Depth	Allows you to set the depth (3D thickness) of each DATAPLOT object using zDepth attribute.
Z Gap Plot	Allows you to specify a gap between all dataplots in a 3D combination chart, as more than one DATAPLOT types can exist due to different datasets. A Z Gap Plot set to 0 will show no gap between dataplots.
YZ Wall Depth	Allows you to set the depth of the YZ wall of 3D chart.
ZX Wall Depth	Allows you to set the depth of the ZX wall of 3D chart.
XY Wall Depth	Allows you to set the depth of the XYwall of 3D chart.
Clustered	Allows you to set a Combination 3D chart in clustered mode. In a Combination 3D chart, you can plot multiple number of datasets which can be rendered as Column.

Custom About Menu Item

You can change the default "About QuickApps for SharePoint" context menu item to show your label and link it to your own URL using the below attributes.

Table 35. Custom About Menu

Element	Description
Show About Menu Item	Allows you to set up a custom context menu in the chart, which can show your text and can be linked to your URL. For example, you can set the context menu of the chart to include "About your company name" and then link to your company home page. By default, the chart shows "About QuickApps for SharePoint" when right-clicked.
About Menu Item Label	Allows you to set a menu item label for the custom context menu item.
About Menu Item Link	Allows you to provide a link for the custom context menu item. You can specify the link in qSIChartView link format to be able to open the same in new window, pop-ups, frames or as JavaScript links.

Functional

These attributes let you control a variety of functional elements on the chart.

Table 36. Functional

Element	Description
Animation	Allows you to control animation in your charts. If you do not want to animate any part of the chart, set this to false. This would also disable all animations applied using <styles>. Animate 3D can override this value. By default, animation is set to true.
Click URL	Allows you to set a URL as a hotspot for a chart. For more information, see Formatting Links.

Trend Lines

Trend Lines allow you to specify the horizontal/vertical lines spanning the chart canvas which aid in interpretation of data with respect to some pre-determined value.

Trend Lines contain the following:

Table 37. Trend Lines

Element	Description
Start Value	Allows you to set the start value for the trend line
End Value	Allows you to set the ending y-axis value for the trend line
Display Value	Allows you to display a string caption for the trend line by its side
Color	Allows you to set the color of the trend line and its text
Is Trend Zone	Allows you to set the trend as a zone rather than a line
Thickness	Allows you to set the thickness of the trend line
Alpha	Allows you to set the alpha transparency of the trend line
Dashed	Allows you to set the trend line as a dashed line
Dash Length	Allows you to set the length of each dash in pixels
Dash Gap	Allows you to set the gap length between each dash
Value on Right	Allows you to show if the trend line is on the right or left side of the chart
Tool Text	Allows you to show tool text when hovered over a trend line
Parent Y Axis	Allows to you set whether the trend line should be plotted against a primary or secondary Y axis (If you use a dual Y Axis chart). If you do not use a dual Y axis chart, the trend line is plotted against the primary Y axis.

Styles

Styles help you apply font, effects and animations to various objects of the chart. Styles lends a simple mechanism using which you can easily control the visual layout of charts.

Styles allows you to:

- Define your own style attributes using the Style Editor.
- Associate them with defined Objects of the chart from within the Style Editor.
- Have better control over chart look & feel.
- Group together in one element in the XML document, thereby separating data from visual formatting.
- Store the entire style definition in a central location in your application, so that all charts within application can utilize it.
- Re-use style definitions. Each style can be applied to multiple chart objects or vice versa.

Each object on the chart has been assigned a unique name, for direct association with style definitions. For example, the background of the chart is termed as BACKGROUND. Similarly, the plot (columns, lines, areas) on the chart is named as DATAPLOT. This enables you to associate each style to multiple chart objects or associate multiple chart objects to a particular style.

You can find the list of objects for each chart in individual Chart XML Sheet.

Styles contains the following:

Table 38. Styles

Element	Description
Advanced Mode	Turn on if you want to edit Styles in XML format. styles> <definition> <style name='MyFirstFontStyle' type='font' face='Verdana' size='12' color='FF0000' bold='1' bgColor='FFFFDD' /> <style name='MyFirstAnimationStyle' type='animation' param='_xScale' start='0' duration='2' /> <style name='MyFirstShadow' type='Shadow' color='CCCCCC' /> </definition> <application> <apply toObject='Caption' styles='MyFirstFontStyle,MyFirstShadow' /> <apply toObject='Canvas' styles='MyFirstAnimationStyle' /> <apply toObject='DataPlot' styles='MyFirstShadow' /> </application> </styles>
Name	Allows you to assign your custom name for the style definition. Style name can only include alphabets and numbers. Punctuation marks (including underscore) should not be used. Style name must be unique, that is, two style definitions cannot have the same name.

Table 38. Styles

Element	Description
Type	Allows you to set the following types: • Font — allows you to control text properties for all the text on the chart. You can set: Font — allows you to set the font type Size — allows you to set the font size Color — allows you to set the font color Bold — allows you to set the font weigh Underline — allows you to assign underline character Background Color — allows you to set the background color Border Color — allows you to set the border color Is HTML — allows you to render the text as HTML Left Margin — allows you to set the left margin of the text Letter Spacing — allows you to set the space between the letters in the text • Animation — Allows you to define your custom animations for different elements of the chart. By default, qSIChartView animates the data plot (columns, lines, area) only. However, you can define your custom animations for other chart objects (like captions, titles, values) in the XML. Each chart object can have multiple animation properties (like x, y, xscale, yscale, alpha) and each sequence can have its own duration. Param — Allows you to you specify the property of chart object which you want to animate, such a _x (animate the x position), _y (animate the y position), _xScale (animate the x-scale), _yScale (animate the y-scale), alpha (helps the alpha transition animation effect), _rotation (animate pies and doughnuts in circles) Start — allows you to set the start value of the animation Duration — allows you to control the duration of animation in seconds Easing — allows you to specify the pattern of animation easing.

Table 38. Styles

Element	Description
Type	• Shadow — Allows you to apply shadow effect to any object on the chart. Distance — allows you to set the offset distance of the shadow Angle — allows you to set the angle of the shadow Color — allows you to set the color of the shadow Alpha — allows you to set the alpha transparency of the shadow BlurX — allows you set the amount of horizontal blur on the shadow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur on the shadow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Strength — allows you to set the strength of the imprint or spread. The higher the value, the more color is imprinted and the stronger the contrast between the shadow and the background. Quality — allows you to set the number of times to apply the shadow effect. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker • Glow — lets you apply glow effects to objects on the chart. Color — allows you to set the color of the glow Alpha — allows you to set the alpha transparency of the glow BlurX — allows you set the amount of horizontal blur on the glow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur on the glow. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Strength — allows you to set the strength of the imprint or spread. The higher the value, the more color is imprinted and the stronger the contrast between the shadow and the background. Quality — allows you to set the number of times to apply the glow effect. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker.

Table 38. Styles

Element	Description
	• Bevel — Allows you to apply bevel effect for any of the chart objects. Angle — allows you to set the angle of the bevel Distance — allows you to set the offset distance of the bevel Shadow Color — allows you to set the shadow color of the bevel Shadow Alpha — allows you to set the alpha transparency value of the shadow color Highlight Color — allows you to set the highlight color of the bevel Highlight Alpha — allows you to set the alpha transparency value of the highlight color BlurX — allows you set the amount of horizontal blur on the bevel. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur on the bevel. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Strength — allows you to set the strength of the imprint or spread. The higher the value, the more color is imprinted and the stronger the contrast between the shadow and the background. Quality — allows you to set the number of times to apply the bevel. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker. • Blur — Allows you to create a blur effect for any object on the chart. BlurX — allows you set the amount of horizontal blur. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. BlurY — allows you to set the amount of vertical blur. Values that are a power of 2 (such as 2, 4, 8, 16 and 32) are optimized to render more quickly than other values. Quality — allows you to set the number of times to apply the filter. Valid values are 0 to 15. The default value is 1, which is equivalent to low quality. A value of 2 is medium quality, and a value of 3 is high quality. Shadow with lower values are rendered quicker.

Custom defined styles to chart objects

To apply your defined styles to chart objects, make sure that you have the list of chart objects present in each chart.

For example, the following chart objects are for 2D Single Series Column Chart:

Table 39. Chart Objects for 2D Series Column Chart

Object Name	Description	Features Supported	Animation Parameters Supported
BACKGROUND	entire background of the chart	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _xScale • _yScale
CANVAS	T the area in which the actual chart is plotted. It is represented by a bounded rectangle. In 3D charts, it refers to the 3D base on which the columns are built.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _xScale • _yScale

Table 39. Chart Objects for 2D Series Column Chart

Object Name	Description	Features Supported	Animation Parameters Supported
CAPTION	The heading of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
DATALABELS	The x-axis labels of the data	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
DATAPLOT	The actual plot of the chart. For example, in Column 2D chart, columns are referred to as DATAPLOT.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _xScale • _yScale
DATAVALUES	The plot values that is, value of each data (line, column, bar, pie), which is displayed beside the data plot.	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
DIVLINES	The horizontal or vertical lines running through the canvas. Each divisional line signifies a smaller unit of the entire axis thus aiding the users in interpreting the chart.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _yScale
HGRID	Alternate color bands between two successive horizontal divisional lines	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _xScale • _yScale
SUBCAPTION	The sub-heading of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
TOOLTIP	The tool tip shown when mouse is hovered over the data plots	• Font (only Font, Size and Color attributes are supported)	

Table 39. Chart Objects for 2D Series Column Chart

Object Name	Description	Features Supported	Animation Parameters Supported
TRENDLINES	Hhorizontal/vertical lines spanning the chart canvas which aid in interpretation of data with respect to some pre-determined value.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _xScale • _yScale •
TRENDVALUES	The display values of trend-lines (if any)	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
VLINES	Vertical separator lines that help you separate blocks of data. These lines run through the height of the chart, thereby segregating data into different blocks. In case of bar charts, they are horizontal and run through the width of chart.	• Animation • Shadow • Glow • Bevel • Blur	• _alpha • _y • _xScale • _yScale
XAXISNAME	The x-axis title of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
YAXISNAME	The y-axis title of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y
YAXISVALUES	The limit values or divisional line values, which are displayed along the y-axis of the chart	• Animation • Font • Shadow • Glow • Bevel • Blur	• _alpha • _x • _y • _rotation

The following XML does the work of applying styles to different chart objects:

```
<application>
    <apply toObject='Caption' styles='MyFirstFontStyle,MyFirstShadow'
    /> <apply toObject='Canvas' styles='MyFirstAnimationStyle' />
    <apply toObject='DataPlot' styles='MyFirstShadow'
/> </application>
```

Each <apply> element helps to apply multiple styles to one chart object; for example, in our code, we first apply the MyFirstFontStyle font style to Caption of the chart and then apply the shadow style MyFirstShadow to the same object.

If you are using multiple styles, ensure:

- you separate the style names using comma

  for example, <apply toObject='Caption' styles='MyFirstFontStyle,MyFirstShadow' />
- when you apply a single style to multiple objects, define <apply> element for each object and then assign the style for it.

  for example,

  <apply toObject='Caption' styles='MyFirstShadow' />

  <apply toObject='DataPlot' styles='MyFirstShadow' />

  You CANNOT separate the object list by comma and then assign a single style to it - the following is INVALID:

  <apply toObject='Caption,DataPlot' styles='MyFirstShadow' />
- The style name specified during application has been defined earlier in style definition and the spelling are correct, else, qSIChartView will ignore it and log the error in Debug Window.

Series Appearance

This property enables you to specify the appearance of the data series and data items in the series.

The Appearance element can contain one or more Series Appearance elements. Each Series Appearance element controls the appearance of the data series in the chart. Therefore, the first Series Appearance element controls the appearance of the first data series, the second one contains the second data series, and so on. See the Configuration property on how to define multiple data series in the chart.

The Series Appearance contains the following:

Table 40. Series Appearance

Element	Description
Advanced Mode	Turn on if you want to edit Series Appearance in XML format. <Appearance> <SeriesAppearance [optional attributes]> <ItemAppearance [optional attributes] /> <ItemAppearance [optional attributes] /> </SeriesAppearances> <SeriesAppearance [optional attributes]> <ItemAppearance [optional attributes] /> <ItemAppearance [optional attributes]/> </SeriesAppearances> </Appearance>
Color	Allows you to set the color using which columns, lines, area of that dataset would be drawn.
Alpha	Allows you to set the alpha (transparency) of the entire dataset at the Series Appearance level. The range is from 0 - 100.
Ratio	Allows you to control the ratio of each color using a comma separated list of ratios, if you are showing columns as gradients,
Dashed	Allows you to set whether this dataset would appear as dashed.
Show Plot Border	Allows you to set whether to show the border of this dataset.
Plot Border Color	Allows you to set the color of the plot border.
Plot Border Thickness	Allows you to set the thickness of the plot border lines.
Plot Border Alpha	Allows you to set the alpha transparency of the plot border lines

Table 40. Series Appearance

Element	Description
Line Thickness	Allows you to set the thickness of the lines for the particular dataset in pixels.
Line Dash Length	Allows you to define the length of the dash, if the lines are to be shown as dash for the particular dataset.
Line Dash Gap	Allows you to define the length of the gap between dashes, if the lines are to be shown as dash for the particular dataset.
Draw Anchors	Allows you set whether to draw anchors for the particular dataset. If the anchors are not shown, then the tool tip and links will not work for the dataset.
Anchor Sides	Allows you set the number of sides that the anchors of the particular dataset will have. For example, an anchor with 3 sides would represent a triangle, with 4 it would be a square and so on. The range is from 3 - 20.
Anchor Radius	Allows you to set the radius (in pixels) of the anchors of the particular dataset. Greater the radius, bigger would be the anchor size.
Anchor Border Color	Allows you set the border color of anchors of the particular dataset. Use hex code of colors. To use the color picker, click on the color swatch square.
Anchor Border Thickness	Allows you set border thickness of anchors of the particular dataset in pixels.
Anchor Background Color	Allows you set the background color of anchors of the particular dataset. Use hex code of colors. To use the color picker, click on the color swatch square.
Anchor Alpha	Allows you set the alpha of entire anchors of the particular dataset. If you need to hide the anchors for the dataset but still enable tool tips, set this as 0.
Anchor Background Alpha	Allows you set the alpha (transparency) of anchor background of the particular dataset. The range is from 0 - 100.

The Series Appearance element can contain zero or more Item Appearance elements. If you do specify any Item Appearance element, every item in the series is displayed according to the settings in the Series Appearance element. The Item Appearance is applied as follows:

- If you specify the Item Value in the Item Appearance, the settings are applied based on the X axis value of the item. For example, if the X axis shows the value of the Priority field in the Tasks list, you can make all the High priority items displayed in red.
- If you specify Y Axis Value Range in the Item Appearance, the settings are applied based on the Y axis value of the item. For example, you can highlight any data items that falls within a certain range with a certain color (low sales number with red, high sales number with blue).
- If neither is specified, the settings are applied in the order they are listed. This means the first Item Appearance controls the appearance of the first data item in the series, the second one controls the second data item in the series, and so on. In this case, if the data series has more items to display than the number of Item Appearance, the remaining items are displayed with the settings specified by the Series Appearance. Having said this, it is better to define more Item Appearance elements when you have a variable number of items to display in the chart.

Item Appearance contains the following:

Table 41. Item Appearance

Element	Description
Item Value	Allows you to specify the settings in the Item Appearance element that are applied to the data items whose X axis value match with the specified value.
Y Axis Value Range	Allows you to apply the color is applied based on the Y axis value of the item, if you specify Y Axis Value Range,

Table 41. Item Appearance

Element	Description
Color	Allows you to define the color of data series at the Series Appearance level for multi-series and combination charts. However, if you wish to highlight a particular data item, you can specify its color at Item Appearance level.
Display Value	Allows you to display a custom string value if instead of the numerical value of this data.
Tooltext	Allows you to display more information for the data item as tool tip. By default, qSIChartView shows the series Name, Category Name and value as tool tip text for that data item.
Alpha	Allows you to define the alpha of datasets at the Series Appearance level for multi-series and combination charts, However, if you wish to highlight a particular data item, you can specify its alpha at Item Appearance level using this attribute. The range is from 0 - 100.
Dashed	Allows you to set whether the border of this data item should appear as dashed.
Anchor Sides	Lets you specify item specific sides of the anchor in a line/area chart. The range is from 3 - 20.
Anchor Radius	Lets you specify item specific radius (in pixels) of the anchor in a line/area chart.
Anchor Border Color	Lets you specify item specific border color of the anchor. Use hex code of colors. To use the color picker, click on the color swatch square
Anchor Border Thickness	Lets you specify item specific border thickness in pixels) of the anchor in a line/area chart.
Anchor Background Color	Lets you specify item specific background color of the anchor in a line/area chart.
Anchor Alpha	Lets you specify item specific alpha (transparency) of the anchor in a line/area chart. The range is from 0 - 100.
Anchor Background Alpha	Lets you specify item specific alpha (transparency) of the anchor background in a line/area chart. The range is from 0 - 100.

Toolbar

The Toolbar Appearance Tab contains the following:

Table 42. Toolbar Appearance

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show Return to Master Chart Button	If selected, displays the Return To Master Chart Button. This button will appear only if the Source parameter exists in the URL of the current page. When the user clicks this button, the user is returned back to the URL specified in the Source HTTP parameter.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 43. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.

Table 43. Layout

Element	Description
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 44. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 45. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Localization contains the following elements.

Table 46. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Return to Master Chart Button Text Resource ID	By default, the text for the Return to Master Chart toolbar button is retrieved from the resource file that is included in the product. If the resource file in the culture that you want to use is not available, define the text for the Return to Master Chart toolbar button in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Filter Button Text Resource ID	By default, the text for the Filter toolbar button is retrieved from the resource file that is included in the product. If the resource file is not available, define the text for the Filter toolbar button in the Resource List and specify its Resource ID. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

qSIChartView Procedures

You can perform the following procedures using qSIChartView:

- Configuring qSIChartView
- Formatting Links
- Setting Number Formatting
- Setting Number Scaling
- Using MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDual YAxis Charts

Configuring qSIChartView

To configure qSIChartview

1. Add qSIChartView to your page.
2. Open **ezEdit**.

   The Primary Content page opens by default.
3. Configure each element as needed and click **OK**.
4. If needed, configure the elements in the other tabs.
5. When done configuring each tab, click **OK**.

Formatting Links

You can perform the following procedures with links:

- Defining Links for a Chart
- Opening Links in a New Window
- Linking to Frames
- Opening Links in Pop-up Windows

Defining Links for a Chart

To define a link for any data plot

1. From Chart Attributes, click **Edit**.
2. Click **Functional**.
3. In the Click URL field, define the link attribute as in the following example: link='ShowDetails.asp%3FMonth%3DJan'

   With the above XML, the data plot (be it column, pie or line/area anchor), when clicked, will take to the page ShowDetails.asp?Month=Jan, which might contain another chart to show detailed results for the month of January.

   The chart view expects all the links in URL Encoded format, if you have characters special characters (such as ?,&) in your link. When the user clicks the link, the chart view decodes it and invokes ShowDetails.asp?Month=Jan.

   All the server-side scripting languages provide a generic function to URL Encode any string.

Opening Links in a New Window

You can open the link in a new window instead of the same window.

To open a link in a new window

1 From Chart Attributes, click **Edit**.

2 Click **Functional**.

3 In the Click URL field, add n- before any link, as in the following example:, link='n-ShowDetails.asp%3FMonth%3DJan'

The above link, when clicked, opens in a new window.

Opening Links in Pop-up Windows

The chart view also allows you to open your links in pop-up windows.

To open a link in pop-up window

1 From Chart Attributes, click **Edit**.

2 Click **Functional**.

3 In the Click URL field, define the link as in the following example: link="P-detailsWin,width=400,height=300,toolbar=no,scrollbars=no, resizable=no-ShowDetails.asp%3FMonth%3DJan"

Where:

- P- denotes that the link is to open in a new pop-up window.
- detailsWin specifies a name for the new window. If you want all the links to open in the same pop-up, use the same window name across all links. However, if you want each link to open in a new pop-up, specify a different window name for each link.
- height specifies the height of the window in pixels.
- width specifies the width of the window in pixels.
- resizable when enabled, allows the user to manually resize the window by dragging its edges or corners.
- scrollbars specify whether or not to display the horizontal and vertical scrollbars that normally appear when the page content is larger tan the screen.

> **NOTE:** You can include other attributes, such as:
>
> - menubar specifies whether or not to display a menu bar at the top of the window.
> - toolbar specifies whether or not to display the main toolbar (with the back, forward, stop buttons).
> - location specifies whether or not to display the location bar (the Address Bar in Internet Explorer) - where URLs are typed and displayed.
> - directories specifies whether or not to display any additional toolbar (for example, the Links Bar in Internet Explorer).
> - status specifies whether or not to display the status bar at the foot of the window.
> - left specifies the distance in pixels of the new window from the left edge of the screen. (This applies to Internet Explorer. For Netscape Navigator use screenX).
> - top specifies the distance in pixels of the new window from the top edge of the screen. (This applies to Internet Explorer. For Netscape Navigator use screenY).
> - fullscreen when enabled causes the window to open in full-screen mode (Internet Explorer only.)

- -ShowDetails.asp%3FMonth%3DJan denotes the actual link to be invoked

Linking to Frames

The chart view allows you to open links in specified frames too. To do so, you just specify the name of the frame in the link itself.

To open link in a specified frame

1 From Chart Attributes, click **Edit**.

2 Click **Functional**.

3 In the Click URL field, set the link as in the following example: link='F-FrameName-ShowDetails.asp%3FMonth%3DJan'

Where:

- F denotes the link opens in a frame
- -FrameName denotes the name of the frame to be opened
- -ShowDetails.asp%3FMonth%3DJan denotes the actual link to be opened. The link needs to be URL Encoded.

In this example, the main frameset is contained in FrameExample.html, which has two vertical frame pane- one on top containing the chart (FramePages\FrameChart.html) and one on bottom to show the linked frame pages. The bottom pane by default shows FramePages\LowerFrame.html which contains the message "Click on columns above to view details ".

The setup looks as:

Figure 17. Linking to Frames

Setting Number Formatting

You can perform the following procedures:

- Controlling Decimal Precision
- Automatic Number Formatting
- Setting Custom Thousand and Decimal Separator Character

- Opening Links in Pop-up Windows
- Adding Number Prefix and Suffix
- Formatting Y-axis Values Decimal in Manual Div-Lines Mode

Controlling Decimal Precision

All the charts types in qSIChartView support the attribute decimals. This single attribute lets you control the decimal precision of all the numbers on the chart. Using this attribute, you can globally set the number of decimal places of ALL numbers of the chart.

To globally set the number of decimal places

1 From Chart Attributes, click **Edit**.

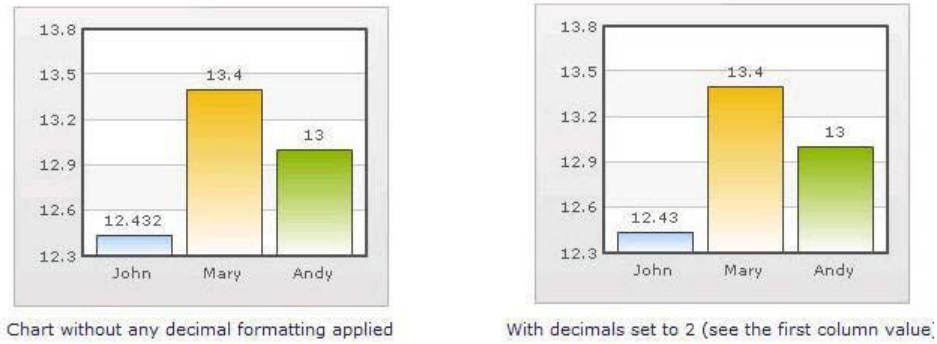
2 Click **Number Formatting**.

3 Enter a value in the Decimal box.

4 Click **Save**.

For example, if you have numbers on your chart as 12.432, 13.4 and 13 and you set Decimals='2' , the numbers would be converted to 12.43, 13.4 and 13 respectively.

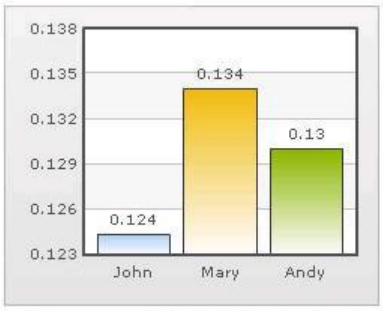
Figure 18. Decimal Precision



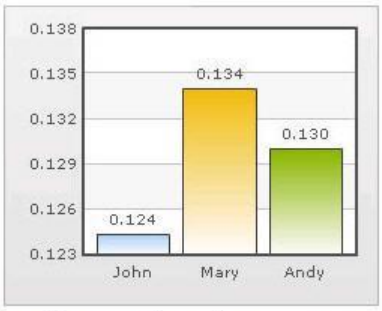
Similarly, if you had data as 0.12342, 0.134 and 0.13, and you set Decimals as 3, qSIChartView would output 0.124, 0.134 and 0.13 respectively.

Even though the Decimal is set to 3, qSIChartView does not add the 0 padding to 0.13 to form 0.130. However, if you want your numbers on the chart to have trailing zeroes too, you can set Force Decimals=true and now the numbers would show as 0.124, 0.134 and 0.130 respectively, as shown in the examples:

Figure 19. Force decimals



Trailing zeroes missing in last column's value.

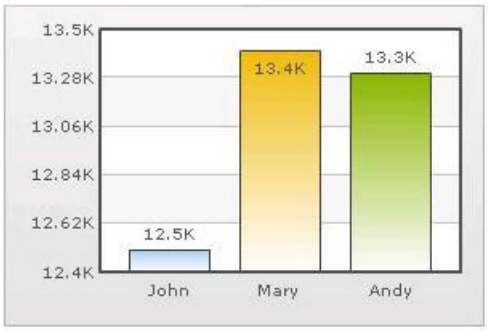


Forcing trailing zeroes by setting forceDecimals='

Automatic Number Formatting

qSIChartView automatically formats your numbers by adding K,M (Kilo, Million) and proper commas to the numbers, as shown in the example:

Figure 20. Automatic Number Formatting



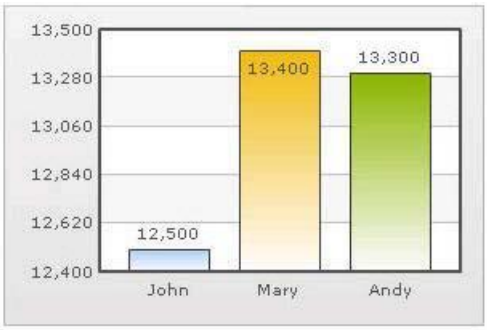
The data for chart is 12500, 13400 and 13300. qSIChartView automatically formats the number scaling to convert to K (Thousands) & M (Millions).

If you do not want to truncate numbers

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. From Format Number Scale, select **False**.
4. Click **Save**.

When you now view the chart, you will see the following:

Figure 21. Not truncating numbers



In the example above, qSIChartView is showing full numbers on the chart. It has also added commas to the numbers at the required places.

If you do not want to set commas

1 From Chart Attributes, click **Edit**.

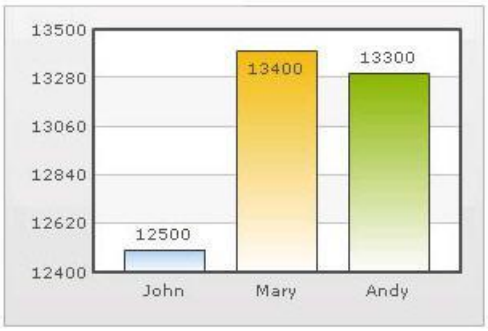
2 Click **Number Formatting**.

3 From Format Number, select **False**.

4 From Format Number Scale, select **False**.

5 Click **Save**.

Figure 22. Not setting commas



The commas have been removed from numbers.

Setting Custom Thousand and Decimal Separator Character

By default, qSIChartView uses . (dot) as decimal separator and , (comma) as thousand separator character. However, you can customize this character depending on your requirements. For example, you can swap the separator characters.

To swap separator characters

1 From Chart Attributes, click **Edit**.

2 Click **Number Formatting**.

3 In the In Decimal Separator, enter **,**.

4 In the In Thousand Separator, enter **.**.

5 Click **Save**.

Figure 23 shows the output.

Figure 23. Swap separator characters

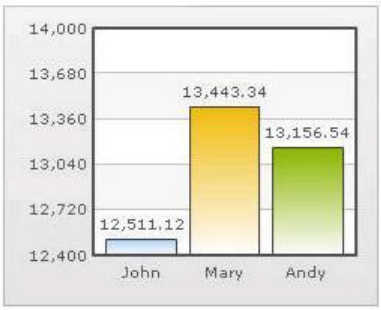


Chart with default decimal and thousand separator. FusionCharts by default separates thousands using commas and decimals using dots.

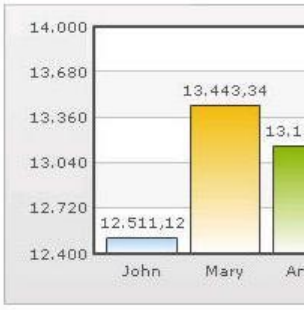


Chart with swapped decimal and th separator character.

Adding Number Prefix and Suffix

qSIChartView allows you to add a prefix or suffix to all numbers on the chart.

To add a number prefix or suffix

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the Number Prefix box, enter a character or value.

   For example, to represent dollar figures, enter $.
4. In the Number Suffix box, enter a character or value.

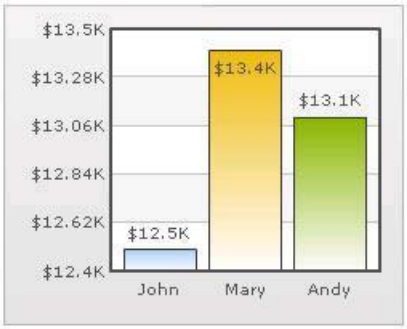
   For example, to represent figures quantified per annum, enter p.a.
5. Click **Save**.

If you intend to use special characters for Number Prefix or Number Suffix, URL Encode them when using dataXML method. For example, if you wish to have numberSuffix as % (for example, 30%):

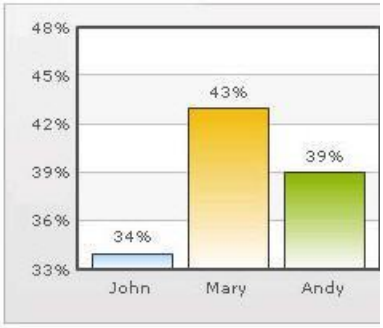
numberSuffix='%25'

In dataURL method, you can directly specify the character.

Figure 24. Adding number prefixes and suffixes



Number Prefix set as $ for the chart



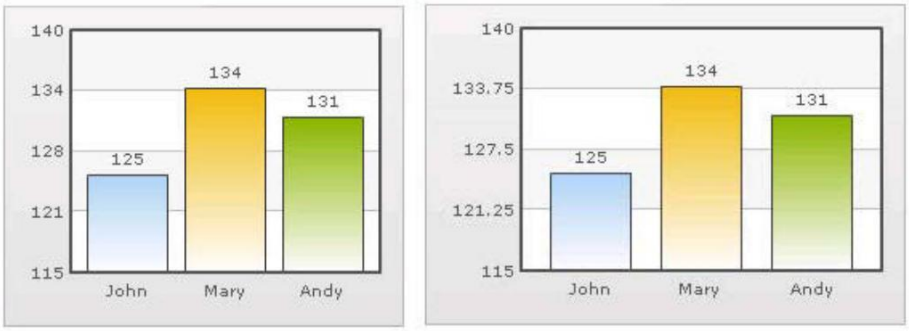
Number Suffix Set as %

Formatting Y-axis Values Decimal in Manual Div-Lines Mode

If you want to set the number of divisional lines on chart, you can control the decimals of y-axis values separately. For example, consider the following attributes and chart:

Y Axis Min Value='115' Y Axis Max Value='140' Zero Plane=false Number of Division Lines='3' >

Figure 25. Formatting y-axis



In this chart, the chart lower limit, upper limit, and number of divisional lines have been manually set. qSIChartView will not automatically adjust divisional lines. In the chart, qSIChartView has truncated decimals from y-axis values, as it cannot find any other decimal values on the chart.

You can, however, show decimals on y-axis values in this case (when Zero Plane is false) using Y Axis Value Decimals attribute, for example Y Axis Min Value='115' Y Axis Max Value='140' Zero Plane=false Number of Division Lines='3' Y Axis Value Decimals='2' Decimals='0' >.

When you now see the chart, 2 decimal places on y-axis values appear. But, the other numbers on chart would still have 0 decimal places.

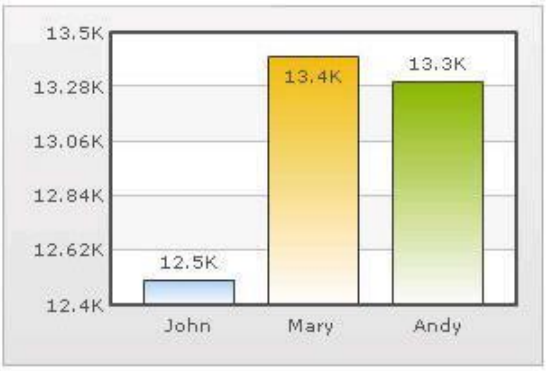
NOTE: Force Decimals does not work in this mode.

Setting Number Scaling

Number scaling lets you define your own scales for numbers and then apply it to all numbers on the chart.

For example, if your numbers on the chart are greater than 1000, qSIChartView scales them to K (Thousands) or M (Millions). For example, if you plot a chart with data as 12500, 13400 and 13300, you will see the following chart:

Figure 26. Setting number scaling



qSIChartView has scaled the numbers down to K. By default, qSIChartView has the K,M (1000,1000) scaling defined for each chart. You can, however, customize it.

You can perform the following procedures:

- Adding Billions to Default Scaling
- Putting Time in Scale

Adding Billions to Default Scaling

qSIChartView, by default, has 1000,1000 (K,M) scaling defined for all charts. It does not have the scaling for billions defined. You can modify the number scaling to add billion so that the final scale looks like 1000,1000,1000 (K,M,B).

This scale would look something like:

- 1000 = 1 K
- 1000 K = 1 M
- 1000 M = 1 B

To convert this scale into qSIChartView format

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the Number Scale Value box, enter **1000,1000,1000**.
4. In the Number Scale Unit box, enter **K,M,B**.
5. Click **Save**.

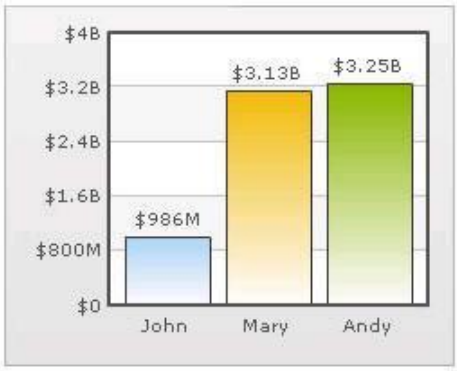
   Whatever numeric figure was present on the left hand side of the table is put in Number Scale Value and whatever unit was present on the right side of the scale table has been put under Number Scale Unit - all separated by commas.

If you want to set the chart formatting flags

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. From Format Number, select **True**.
4. From Format Number Scale, select **True**.
5. In the Number Prefix box, enter **$**.
6. Click **Save**.

When you now view a chart containing data in billions, you will see the following chart. Note that the chart now contains figure both in millions and billions.

Figure 27. Setting chart formatting



Putting Time in Scale

If you want to plot time-related figures on the chart, you can set the time in each process to range from a few seconds to few days. You can build a scale indicating time and then specify it to the chart:

- 60 seconds = 1 minute
- 60 minute = 1 hr
- 24 hrs = 1 day
- 7 days = 1 week

To convert this scale in qSIChartView

1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. In the Default Number Scale box, enter **s**.

   The default number scale is now represented in seconds.
4. In the Number Scale Value box, enter **60,60,24,7**.
5. In the Number Scale Unit box, enter **min,hr,day,wk**.
6. Click **Save**.

   Whatever numeric figure was present on the left hand side of the table is put in Number Scale Value and whatever unit was present on the right side of the scale table has been put under Number Scale Unit - all separated by commas.

If you want to set the chart formatting flags

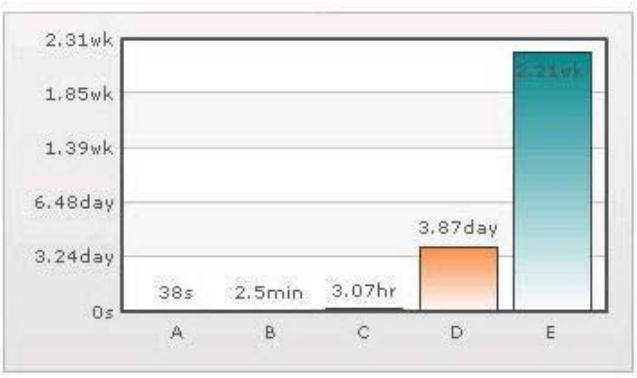
1. From Chart Attributes, click **Edit**.
2. Click **Number Formatting**.
3. From Format Number, select **True**.
4. From Format Number Scale, select **True**.
5. Click **Save**.

   When you now view the chart, you'll see that all the data has been automatically scaled to the best value:

   - 38 is converted to 38s

- 150 is converted to 2.50min
- 11050 is converted to 3.07hr
- 334345 is converted to 3.87 day
- 1334345 is converted to 2.21wk

Figure 28. Time scaling



Using MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDual YAxis Charts

To use MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDualYAxis

For example, you want to use a list that shows total revenue (Sales minus Cost) for all products from 2001-2006.

1 Open qSIChartView in ezEdit.

2 Configure the Catalog section.

3 In the Chart Type section, select **MultiSeriesStackedColumn2D** or **MultiSeriesStackedColumn2DLineDualYAxis**.

4 Edit the Configuration section, and enter a field name; for example, Year.

5 Click **Add Data Series** and add two data series; for example:

Each series represents a stack within group of stacks.

6 Click **Edit** in each data series and enter a filter field name; for example, Name.

qSIChartView stacks the data according to filter field's value. If the Filter Field Name is not set, the chart is not rendered as stack.

NOTE: You can use the same field name in each series if you enter a filter expression.

20

qSIListForm

- Overview
- qSIListForm Pages

Overview

qSIListForm is a form that displays data from external systems, such as SQL Server, Web Services, K2, or Salesforce. It allows you to associate a custom toolbar button with one or more actions, and enables you to write complex validation logic.

This web app validates the following properties before setting them:

- Form Component Behavior. If this succeeds, it will execute the custom action.
- Fields that are marked as required. See Required on page 326.
- Displayed Fields Type (if Number is selected as the type). See Type on page 326. qSIListForm allows you to:
- define a mask for the input. Enforcing the format increases the consistency and data correctness.
- create a description for each field. The description can be plain text or HTML.
- define a new title for the field. This is useful if the title is too long or if you want to display a different title for the field.
- assign a fixed value to a field.
- assign a formatted value to a field based on values in other fields. The only requirement is that the parent fields must precede the field to be assigned.
- fill the value of a field from a value stored in the Session variable. This feature usually works in conjunction with another web app, such as qSISelector or qSIListView.
- auto-fill a certain field based on field in a consumed row.
- implement the IWebPartRow interface to provide a row to another web app, such as qSIListView or qSISelector.
- hide a field. A hidden field is processed during postback, but it will not be displayed.
- create a read -only field.
- store the displayed, new, or updated items into the Session. This feature enables a List Form to communicate with another web app, such as qSISelector in another page.
- display, create, and edit data in your external systems. Out of the box, this Web app supports the DAO Provider for:
    - Web Services
    - SQL Server
    - Oracle
    - Domino Server using XML over HTTP
    - Salesforce

- K2Server (for SharePoint 2010 only)

- Define a different title for different languages using the Resource List and the Title Resource ID properties. You can also define different texts for the buttons in the list form toolbar for different languages. The culture for the page can be defined by appending the *Culture* HTTP parameter to the page URL; for example, http://hostname/sites/sitename/default.aspx?Culture=en-US

TIP: To better understand SI web apps, read the System Integration Developer Guide.

qSIListForm Pages

You can configure this web app through its tabs that are accessible through ezEdit. qSIListForm contains the following tabs:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Optional Content

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Catalog	See Catalog on page 320.
Form Type	Allows you to choose one of the following: • DisplayEntity — The form is used to display an entity (all fields are read-only). • NewEntity — The form is used to create a new entity. • EditEntity — The form is used to edit an entity.
Form Layout	For more information, see Form Layout on page 322.
Display Fields	For more information, see Display Fields on page 324.

Catalog

This property defines the entity and the operations related to the entity.

Entities contain the following elements:

Table 2. Catalog

Element	Description
Advanced Mode	Turn on if you want to edit Catalog in XML format. <Catalog> <Entity Name="entityName" System="systemName" Service="serviceName" Default="true/false"> <Properties> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> </Properties> <Operation Name="operationName" Method="methodName" Default="True/False" > <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> </Operation> </Entity> <Entity> ..</Entity> </Catalog>
System	Allows you to specify the system name that is defined in the System Integration configuration file. If the system name does not exist in the System Integration configuration file, you will get an error.
Service	Allows you to specify the service name that is defined in the System Integration configuration file. The service name that you specify here must belong to system that you specify in the System attribute. If the service name does not exist in the System Integration configuration file, you will get an error.
Name	Allows you to specify the name of the entity which must be unique within this Catalog. The name does not have to match with any name in your external system. However, it is recommended that you use a descriptive name for your entity.
Set Session Name	Allows you to enter name of the session variable where the edited or newly created item is stored when it is saved, or the item that is being displayed or edited is stored when it is loaded.
Reset Session Names	Allows you to reset (set to NULL) the value of the session variable whose name is specified in this attribute. Specify multiple names by separating them with commas.
Default	Allows you to define this entity as the default for the list form. If this element is not specified, the first entity that is listed in the catalog becomes the default entity. The default operation of the default entity is the operation that is used to retrieve the data when the list form is loaded for the first time in edit or display mode.

You can add operations to your entities by configuring the following elements:

Table 3. Operations

Element	Description
Name	Allows you to specify the name of the operation. This name does not have to match with any name in your external system. This name is used to refer to this operation in the Action property.
Method	Allows you to specify the real name of the operation in your external system. For example, it may refer to the name of a web service method. Or it may refer to the name of a stored procedure in your SQL Server database.
Default	Allows you to define this operation as the default. The default operation is the first operation that is called to retrieve the entity to be displayed or edited. If this attribute is not specified, the first operation listed in the entity becomes the default operation.

You can define parameters for the operation by configuring the following elements:

Table 4. Parameters

Element	Description
Name	Allows you to specify the name of the parameter.
Source	Allows you to define the source of this parameter. The source can be one of the following: • DefaultValue — the value of the parameter that is the default • NullValue — the value of the parameter is blank • FixedValue — the value of the parameter that is defined in the Value attribute • HttpRequest — the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter. • Input — the value of the parameter that is retrieved from one of the input fields in the form. You specify the name of the input field in the SourceName attribute. Additionally, you can retrieve the current user information as the value of the parameter. You can specify one of the following name in the SourceName attribute to retrieve the current user information: • RowFromAnotherWebApp— the value of the parameter that is retrieved from the row that is consumed from another web app. You specify the name of the field that is consumed in the SourceName attribute. • Session — the value of the parameter that is retrieved from the row that is stored in the session. You specify the name of the session in the SessionName attribute. You specify the name of the field that is consumed in the SourceName attribute. • ComplexType — the value of the parameter is an object based on the Type attribute and Member definition inside the Parameter. Array and nested complex types are supported. • Array — the value of the parameter is an array of values • XML — the value of the parameter that is dynamically built when the condition is execute at runtime
Usage	Allows you to define the direction for this parameter. The options are In, Out, InOut, or ReturnValue.

You can define one or more Property elements.

Table 5. Properties

Element	Description
Name	Allows you to specify the name of the property. Refer to the documentation for the DAO Provider to your external system will tell you the name of the property that you must define.
Type	Allows you to specify type of value that is specified in the Value attribute. Example: System.String.
Value	Allows you to specify the value of the property.

Form Layout

This property enables you to define the layout of the fields in the List Form. If this property is not defined, the List Form will display the fields in two column format: the first column is the field title and the second column is the control for the field.

This property is related to the Display Fields property. The Form Layout property defines the layout type and the containers. In order to place a certain field in a specific container, you will use the Tab/Container ID attribute of the Field element in the Display Fields property.

The Form Layout element can contain zero or more Container elements. You may not have to define any container for a certain type of layout manager. Some custom layout manager may have a fixed set of containers that do not need to be defined.

The Form Layout section contains the following:

Table 6. Form Layout

Form Layout type	Description
Advanced Mode	Turn on if you want to edit Form Layout in XML format: <FormLayout Type="TabLayout"> <Container Type="containerType" ID="containerID1" Label="tabText1" ShowUserGroups="group1,group2" HideUserGroups="group3,group4"> <Container Type="containerType" ID="containerID2" Label="tabText2" ShowUserGroups="group3,group4" HideUserGroups="group1,group2"> </FormLayout>
Tab Layout	Groups the fields in multiple tabs. You can add tabs to this layout by setting values for the following: • ID — the identifier for the tab. This ID must be unique for each container that is defined in the Form Layout. This identifier is referred to in the ContainerID attribute of the Field element in the Display Fields Property. • Label — the label for the container. Otherwise, if the container needs a label, it will use the ID. • ShowUserGroups — the container is shown if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. • HideUserGroups — the container is hidden if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. The HideUserGroups attribute will take precedence if the current user is a member of one of the groups specified in the HideUserGroups and ShowUserGroups.
Custom Layout	Uses the custom layout manager class specified in the LayoutManagerClassName attribute to layout the fields. Using the custom layout, you can write your own custom Layout Manager where you can layout the fields in any way you want it or even create your own custom controls in the form. For more detail on how to write your own custom Layout Manager class, see Custom Layout on page 146. You can add containers to this layout by setting values for the following: • ID — the identifier for the tab. This ID must be unique for each container that is defined in the Form Layout. This identifier is referred to in the ContainerID attribute of the Field element in the Display Fields Property. • Type — the type of container. • Label — the label for the container. Otherwise, if the container needs a label, it will use the ID. • ShowUserGroups — the container is shown if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. • HideUserGroups — the container is hidden if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. The HideUserGroups attribute will take precedence if the current user is a member of one of the groups specified in the HideUserGroups and ShowUserGroups.

Table 6. Form Layout

Form Layout type	Description
MultiColumn Layout	Displays the data in multiple columns. You can select the number of columns, and select if you want to render and control in a single row (displays the Label/Input control on the same row. If not selected, the Label/Input control is on separate row. Being on the separate row gives more screen real estate to render multiple columns. If this is selected, column span and row span attributes are applied to grouped field.)
Tab and MultiColumn Layout	Groups the fields in multiple tabs and in multiple columns in each tab. You can add tabs to this layout by setting values for the following: • ID — the identifier for the tab. This ID must be unique for each container that is defined in the Form Layout. This identifier is referred to in the ContainerID attribute of the Field element in the Display Fields Property. • Label — the label for the tab. Otherwise, if the container needs a label, it will use the ID. • ShowUserGroups — the tab is shown if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. • HideUserGroups — the tab is hidden if the current user is a member of at least one of the specified SharePoint groups. You can define multiple SharePoint group names here by separating them with commas. The HideUserGroups attribute will take precedence if the current user is a member of one of the groups specified in the HideUserGroups and ShowUserGroups. • Render and Control in a single row — the tab displays the Label/Input control on the same row. If not selected, the Label/Input control is on separate row. Being on the separate row gives more screen real estate to render multiple columns. If this is selected, column span and row span attributes are applied to grouped field.

Display Fields

This property defines what fields should be displayed in the List Form and how the fields are populated.

NOTE: You must configure Display Fields before configuring Form Component Behavior.

Advanced Mode

Turn on if you want to edit Display Fields in XML format.

Data Index/Data Member

NOTE: This section is optional.

The Data Index allows you to define the index of the data table that contains the data to be displayed. This is useful when the operation that retrieves the data from external system returns multiple data tables. If the data table does not have any meaningful name, use the Data Index property.

The Data Member allows you to define the name of the data table that contains the data to be displayed. This is useful when the operation that retrieves the data from external system returns multiple data tables and those tables do not have any meaningful name. If the data table has meaningful name, you can refer to it by using the Data Member property.

If neither the Data Member or the Data Index is specified, the first data table in the data set is used.

Fields

You can add fields by selecting them from a list automatically displayed or by manually adding them.

Loading Fields

If the default operation of the external system (selected in the Catalog section) contains data, click **Load Fields** to display a list of fields. Select the fields you want to display in the web app.

NOTE: Loading Fields is supported in the qSIListForm Web app only.

Adding Fields

If the default operation does not contain data, select **Add Fields**.

You can add fields and enter values for the following:

Table 7. Adding Fields

Values	Description
Field Name	Displays the field name.
Title	Allows you to change the displayed title for the field. The value can be a plain string or an encoded HTML string. Change the displayed title, for example, when the title is too long or to make the title more descriptive.
Description	Allows you to set the field description. It can be a plain string or an encoded HTML string. The Description is added below the field value.

Field Properties

Click **Edit** next to a field name to further define its properties by configuring the following:

Table 8. Field Properties

Properties	Description
Name	Displays the field name.
Title	Allows you to change the displayed title for the field. The value can be a plain string or an encoded HTML string. You can change the displayed title, for example, when the title is too long or to make the title more descriptive.
Title Resource ID	If supporting a multi-lingual site, you may want to display a different Title for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The TitleResourceID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default Title is used.
Tooltip	Allows you to set the text that is displayed in the tooltip when you hover your mouse over the control for the field in the list form. If you do not specify this attribute, the display name of the field is used as the tooltip text.
Tooltip Resource ID	If supporting a multi-lingual site, you may want to display a different tooltip for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The Tooltip Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default tooltip is used.
Description	Allows you to set the field description. It can be a plain string or an encoded HTML string. The Description is added below the field value.
Description Resource ID	If supporting a multi-lingual site, you may want to display a different description for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The Description Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default description is used.
Width (in pixels)	Allows you to set the width of the control in pixels. **NOTE:** Some controls, such as the Rich Text Editor, have minimum width and it will not honor the specified width if it is smaller than its minimum width.

Table 8. Field Properties

Properties	Description
Column Span	Allows you to set the span of the column.
Row Span	Allows you to set the span of the row.
Type	Allows you to define the type of field. The following types are supported: • SingleLineofText • MultipleLinesofText • RichText - disables resizing text • Choice - allows you to define the options for the Choice field or retrieves the options for the names of the data table in a dataset. • Number - when selected, allows you enter a minimum and maximum value, and select the number of decimal places and if you want these numbers as a percentage • Currency • DateTime - allows you to enter DateOnly or DateTime • Boolean
Required	Select this check box if this field is required.
Hidden	Allows you to hide the field.If the field is hidden, the List Form will not modify that field at all. If you hide the field using the Hidden attribute, the field is processed according to the way it is defined, but it will not be shown in the List Form.
Auto Post Back	If selected, allows the control to refresh the form when its value changes. This attribute should be set to true in the following scenarios: • When a choice field is used in the conditions of the Form Component Behavior property. • When a choice field is passed as a parameter to another operation that is used to populate another choice field.
Group Name	Allows you to create dynamic behavior for a group of fields. The list form can be defined to have dynamic behavior where certain fields or group of fields can be hidden, shown, disabled, or enabled based on certain conditions. The value in the Group Name field is referred to in the Form Component Behavior property.
Mask	Allows you to define the format of the input. The mask can contain characters and input-mask-flags such as: # — digit or space, optional. If this position is blank in the mask, it is rendered as a prompt character. L — uppercase letter, optional. Restricts input to the ASCII letters A-Z. l (lower case L) — lowercase letter, optional. Restricts input to the ASCII letters a-z. a — accepts any character <n..m> — restricts the user input to the declared numeric range, for example: <0..255>. The numeric range mask part must occupy multiple characters of the mask. <option1|option2|option3> — restricts user input to one of the set options, for example: <Sun|Mon|Tue|Wed|Thu|Fri|Sat>. \ — escapes a mask character, turning it into a literal. "\\" is the escape sequence for a backslash. All other character — all non mask elements will appear as themselves. Literals always occupy a static position in the mask at run time, and cannot be moved or deleted by the user.
Prompt Character	Allows you to define a placeholder to enter a character that is displayed and saved in place of the empty characters when you specify a mask. If not specified, "_" (underscore) is used as the default prompt character. Specify only a single character in this attribute.
Field Type	Allows you to select a field type. More options are available depending on the field type selected. For more information, see Field Types on page 327.

Field Types

Select one of the following field types.

Table 9. Field Types

Field types	Description
Regular Field	Allows you to assign a regular field. This is the default.
Fixed Value	You can assign a fixed value to a field using the FixedValue attribute. For example, to assign Accounting to the Department field: <Field Name="Department" FixedValue="Accounting"/> Additionally, you can use special variables for the FixedValue attribute. • <CurrentUserID/> — this value is replaced by the ID of the currently logged in user. If you want to assign the current user to the People and Group field, use this variable. If you are using Advanced Mode and you would like to assign a task to the currently logged in user, you can specify the following Field element: <Field Name="Assigned To" FixedValue="<CurrentUserID/>" /> • <CurrentUserName/> — this value is replaced by the name of the currently logged in user. • <CurrentUserEmail/> — this value is replaced by the email of the currently logged in user. • <CurrentLoginName/> — this value is replaced by the login name of the currently logged in user. The login name is usually in the form of domain\username. • <Today/> — this value is replaced by today's date. • <Now/> — this value is replaced by the current date and time. **NOTE:** If you are using SharePoint Form-Based Authentication, the above variables will return the following, for example: • CurrentUserName=testuser • CurrentLoginName=i:0#.f|<site>|testuser • CurrentUserID=6 • CurrentUserEmail=testuser@company.com You can set the following: • Allow Edit - select this check box to edit the field value in the form; otherwise, it is read-only.
Consume Value for an HTTP Parameter	The HTTP Parameter Consumer field gets its value from an HTTP parameter. This is the attribute to create an HTTP Parameter Consumer field. You can set the following: • Consume HTTP Parameter Name - allows you to enter the name of the HTTP parameter whose value is to be consumed. • Allow Edit - select this check box to edit the field value in the form; otherwise, it is read-only.
Calculated Format	You can format a value of a field using values from other fields by using the CalculatedFormat attribute. The value of the another field can be referred to using the <%fieldName%> field replacement expression. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the List Form Editor, where the Editor will encode the characters automatically for you.

Table 9. Field Types

Field types	Description
Consume value from a row provided by another Web app	The row consumer field gets its value from the row that is consumed by this List Form. To create a row consumer field, you must connect the List Form with another web app that implements the IRowProvider interface (such as the qSISelector). You can set the following: • Consume Row Display Field Name - allows you to define the field name in the row from where the value comes. • Consume Row Display Format - allows you to define the string format for the values. This attribute takes precedence over the Consume Row Display Field Name attribute. The format of the Consume Row Display Format is the same as the format used in the Calculated Format attribute. If you select NewEntity type as Form type, leave this field blank unless it is in simple text format. • Allow Edit - select this check box to edit the field value in the form; otherwise, it is read-only
Consume from another session	Session consumer field gets its value from a row that is stored in the session object. If you require values from multiple providers, use the Session Consumer field type instead of Row Consumer field type because the List Form can only be connected to one row provider. You can set the following: • Session Name - enter the name of the session • Consume Session Display Field Name - allows you to defines the field name in the session from where the value comes. • Consume Session Display Format - allows you to define the string format for the values. This attribute takes precedence over the Consume Session Display Field Name attribute. The format of the Consume Session Display Format is the same as the format used in the Calculated Format attribute. • Allow Edit - select this check box to edit the field value in the form; otherwise, it is read-only

Optional Content

You can configure the following optional content:

Table 10. Optional Content

Element	Description
Display Required Field Message	Allows Required Fields Messages to be displayed on the form

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Form
- Views

Actions

The list form has some pre-defined actions, such as Save, Delete, Copy or Move. You can also write your own custom action and hook it up with the list form.

The Actions page contain the following elements:

Table 11. Actions

Element	Description
Custom Actions	For more information, see Custom Actions on page 329.
Custom Action Error Display	Allows you to set where the error message is displayed if the custom action throws an exception. The options are: • Inline — the error message is displayed in the list form above the displayed fields. • Popup — the error message is displayed in a popup dialog box. • InlineAndPopup — the error message is displayed in a popup dialog box and inline above the displayed fields. Popup is the default. This property will only affect the error message that is returned by the ICustomAction implementation. It will not affect the error that is generated internally by the List Form.

Custom Actions

This property enables you to define additional buttons in the toolbar or context menu item in the context menu. You can program that button or context menu item to do a series of actions. The List Form supports some built-in actions. However, you can write your own custom action using one of the .NET languages, compile it, and call it by the List Form. See Custom Action Help on page 375 to see how to write your own custom actions.

NOTE: The toolbar button affects all the items that are selected in the List Form. The context menu item affects only the item that is being right-clicked regardless of how many items are selected in your List Form.

Here are some ways that you can use this functionality:

- Add a custom toolbar button called "Assign All to Me" that will assign all of the selected tasks in the List Form to me.
- Add a custom toolbar called "Approve" that will change the status of all of the selected expense items to Approved.
- Create a custom context menu item called "Publish" that will move the right-clicked document into another document library.
- Create a custom context menu item or toolbar item to start a workflow.
- With the ability to write your own custom action, you can virtually do anything to the data when you click the custom button that you define.

NOTE: The custom action in the List Form does not support the Save action.

The Custom Actions element contains one Toolbar element and one Context Menu element. These elements can contain one or more Action Item elements. You can associate the Action Item with one or more Action elements. The Action element define a certain operation that is carried out by the action item when it is clicked. When you add an action item, you can configure the following:

Table 12. Custom Actions

Element	Description
Advanced Mode	Turn on if you want to edit Custom Actions in XML format. <CustomActions> <Toolbar> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </Toolbar> <ContextMenu> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </ContextMenu> </CustomActions>
IsSeparator	Allows you to set the item as a separator.
ID	Allows you to enter a unique ID that will identify the item. Use a descriptive identifier to configure the action item with the editor.
Text	Allows you to enter how the action item is displayed in the toolbar.

Table 12. Custom Actions

Element	Description
Text Resource ID	Allows you to define this property if you support a a multi-lingual site. This attribute defines the identifier of the string in the Resource List that is used as the title of the Web app. The Text Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the value in the Text attribute is used.
Prompt Text	Allows you to prompt the user to click the toolbar button or the context menu item.
Prompt Text Resource ID	Allows you to define this property if you support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the title of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Access Key (Toolbar Only)	Allows you to define one character from the Text attribute that becomes the access key to this toolbar button or context menu item. For example, if you define a letter T as the access key, you can press ALT+T and the browser will put the focus on this button or context menu item. If there are multiple elements on the page with the same access key, you can repeat ALT+T repeatedly until you get the focus on this toolbar button or context menu item.
Position	Allows you to set the position of the button in the toolbar. The index starts with 0.
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot

When you add an action, you can configure the following:

Element	Description
Name	An optional element which allows you to identify a given action in order to access it from another action. You can refer to this action from the GoToURL action and from ICustomActionEx Interface.
Type	Allows you to determine the type of the action. Here are the options: • Delete — deletes the item. • Move — allows you to move the item to a target. You must specify a Target Site URL, Target List Name, and Target Folder. This action only works for document in a document library. • Copy — allows you to copy the item to a target. You must specify a Target Site URL, Target List Name, and Target Folder. • GoToURL — redirects the user to a specific URL. You must specify the URL and where you want the URL to open. You must specify the following parameters: - Input - the current user information as the value of the parameter - Session - the name of the session variable where the value comes from when the source is set to Session - HttpRequest - the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter. - ListItem - the value of the parameter is a list item or row - RowFromAnotherWebApp— the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. There are two types of action that can produce an output: an action with Type of ExecuteOperation, and an action with Type of Custom that points to custom action implementation of ICustomActionEx Interface. You do that by defining the SourceName attribute of the action. This is the syntax of the SourceName attribute when you use ResultFormAction source: <ActionName>.<ResultType>[.Name], where ActionName refers to the Name attribute of the action that produces the output, ResultType can be OutParameter (if the action result is returned through one of the out or inout parameter) or RawData - (if the action result is returned as an object). Name is optional. It further designates the object we want to use for the parameter. You do not have to specify the Name when the ResultType is RawData. However, if the ResultType is OutParameter, this name specifies the name of the out or input key value pair. - ResultFromAction - the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem You must define a source name (where in the source you want to get your information from), name (the name of the parameter that is appended to the URL you specified), and Session (the name of the session variable where the value comes from when the source is set to Session) • GoToSource — redirects the user to the URL specified in the Source HTTP parameter. The URL to the page must look like: http://...?Source=URL for this option to work. • StartWorkflow — starts the specified workflow in the Workflow Name drop-down field. You must select a Workflow name. • ReturnToMasterChart — returns the user to the master chart page. You use this action type if this web app is located in the drill down page. • Custom — implements your own custom action and call it with this action type. Enter a Class name that implements the ICustomActionEx or ICustomAction interface, or select a class from the drop-down list, if available.

Form

The Form page contains the following elements:

Table 13. Form

Element	Description
Form Initialization Actions	Allows the List Form to be automatically pre-populated when the Form Type property is set to NewListItem, CreateDocument or UploadDocument. The List Form will call the defined custom actions that are specified in this property. The fields that cannot be automatically pre-populated are: • Auto-fill field (fixed value, consume value from an HTTP parameter, calculated format, consume value from a session, consume row from a row provided by another web app, auto fill with a lookup or cross-site lookup field) • BDC Column • SI Column • Complex category field • Cross site lookup field See the Custom Action Help on page 375 chapter on how to write a custom action to initialize the list form. Turn on Advanced Mode if you want to edit Form Initialization Actions in XML format. <FormInitialization> <Action Name=”initial 1” Type="Custom" Class="MyCompany.DevStudio.SampleFormInitializationAction, MyCompany.DevStudio, Version=1.0.0.0, Culture=neutral, PublicKeyToken=451cac61f7ec4225" / > <Action Name=”initial 2” Type="Custom" Class="MyCompany.DevStudio.SampleFormInitializationAction2, MyCompany.DevStudio, Version=1.0.0.0, Culture=neutral, PublicKeyToken=451cac61f7ec4225" / > </FormInitialization> Form initialization is a way to auto fill the form. It should not be used in conjunction with another auto fill method. If you do this, the result is unpredictable (that is sometimes the value from form initialization will take precedence, but sometimes the value from the other auto fill method will take precedence).
Form Component Behavior	For more information, see Form Component Behavior on page 333.

Form Component Behavior

This section is used to control the conditional behavior of the different components in the form, such as a field, a group of fields or a tab. There are four different conditional behaviors that can be specified: Show When, Hide When, Enabled When, and Disabled When. For fields, there are three additional conditional behaviors that can be specified: Valid When, Invalid When, and Required When.

NOTE: You must configure Display Fields before configuring Form Component Behavior.

You can define one or more form component definitions.

Table 14. Definition

Definition	Description
Advanced Mode	Turn on if you want to edit Form Component Behavior in XML format. <FormComponentBehavior> <Component Type="Field/Group/Container" ID="ComponentID"> <ShowWhen> [Condition specified in CAML Filter format] </ShowWhen> <HideWhen> [Condition specified in CAML Filter format] </HideWhen> <EnabledWhen> [Condition specified in CAML Filter format] </EnabledWhen> <DisabledWhen> [Condition specified in CAML Filter format] </DisabledWhen> <InvalidWhen Message=”Custom Message when condition is true”> [Condition specified in CAML Filter format] </InvalidWhen> <ValidWhen Message=”Custom Message when condition is true”> [Condition specified in CAML Filter format] </ValidWhen> <RequiredWhen Message=”Custom Message when condition is true”> [Condition specified in CAML Filter format] </RequiredWhen> </Component> <Componet ...> <Component ...> </FormComponentBehavior>
Type	Defines the type of the component that is assigned the dynamic behavior. The choices are: Field, Group, or Container (that is, tab).
ID	Defines the ID or name of the component whose behavior is defined to be dynamic. When the Type is set to Field, this ID refers to the Name of a field that is defined in the Display Fields property. When the Type is set to Group, this ID refers to the Group Name attribute of one or more fields defined in the Display Fields property. When the Type is set to Container, this ID refers to the ID of a container that is defined in the Form Layout property.

To see details for a form component, you can configure the following properties:

Table 15. Definition Properties

Property	Description
Show When	Defines the conditions of when the form component should be shown.
Hide When	Defines the conditions of when the form component should be hidden. This conditional behavior takes precedence over the Show When conditional behavior. Therefore, if Hide When and Show When are defined and both evaluate to true, the component is hidden.
Enabled When	Defines the conditions of when the form component should be enabled.

Table 15. Definition Properties

Property	Description
Disabled When	Defines the conditions of when the form component should be disabled. This conditional behavior takes precedence over the Enabled When conditional behavior. Therefore, if Enabled When and Disabled When are defined and both evaluate to true, the component is disabled.
Required When	Defines the conditions of when the form component should be required. This conditional behavior is for fields only. A custom message can be specified. It is displayed when the Required When condition is satisfied. The message is displayed by default in red after the input control on the form. However, you can specify any text or HTML code as the Message attribute.
Valid When	Defines the conditions of when the form component should be valid. This conditional behavior is for fields only. A custom message can be specified. It is displayed when the Valid When condition is satisfied. The message is displayed by default in red after the input control on the form. However you can specify any text or HTML code as the Message attribute.
Invalid When	Defines the conditions of when the form component should be invalid. This conditional behavior is for fields only. This conditional behavior takes precedence over the Valid When conditional behavior. Therefore, if Valid When and Invalid When are defined and both evaluate to true, the field is invalid. A custom message can be specified. It is displayed when the Invalid When condition is satisfied. The message is displayed by default in red after the input control on the form. However you can specify any text or HTML code as the Message attribute.

For fields of type text, numeric or date/time, regular expression matching can be used for validation. Use the “Matching” operator in the conditional behavior element.

The following are some examples of how to use this property:

1 Show the Resolved Date and Resolved By fields when the Status field is changed to "Resolved". By specifying both fields’ GroupName attribute in the Display Fields property to “ResolvedFieldsGroup”, it is defined that both fields belong to the same group.

```
<orFmComponentBehavior>
  <Component Type="Group" ID="ResolvedFieldsGroup">
    <ShowWhen>
      <Eq><FieldRef Name="Status"/><Value Type="Choice">Resolved</Value></Eq>
    </ShowWhen>
  </Component>Enable the "Amount Paid" field when the Invoice Status fie
</FormComponentBehavior>
```

2 ld is changed to "Paid".

```
<FormComponentBehavior>
  <Component Type="Field" ID="Amount
    Paid"> <EnabledWhen>
      <Eq><FieldRef Name="Invoice Status"/><Value
    Type="Choice">Paid</Value></Eq> </EnabledWhen>
  </Component>
</FormComponentBehavior>
```

3 Hide the Reason field when the Project Status field is not

"Behind" <FormComponentBehavior>

```
  <Component Type="Field" ID="Reason">
```

```
      <HideWhen>
        <Neq><FieldRef Name="Project Status"/><Value
      Type="Choice">Behind</Value></Neq> </HideWhen>
    </Component>
  </FormComponentBehavior>
```

4 Show error message if field, Assigned To, is blank when Status is “In Process” <FormComponentBehavior>

```
    <Component Type="Field" ID="Assigned To">
      <InvalidWhen Message="Assigned To Must be filled if Status is In
        Process"> <And>
          <IsNull>
            <FieldRef Name="AssignedTo"
          /> </IsNull>
          <Eq>
            <FieldRef Name="Status" />
            <Value Type="Choice">In
          Progress</Value> </Eq>
        </And>
      </InvalidWhen>
    </Component>
  </FormComponentBehavior>
```

5 Field % Complete must be between 0 and 100 <FormComponentBehavior>

```
    <Component Type="Field" ID="% Complete">
      <ValidWhen Message="% Complete must be between 0 and
        100"> <And>
          <Geq>
            <FieldRef Name="PercentComplete"
            /> <Value Type="Number">0</Value>
          </Geq>
          <Leq>
            <FieldRef Name="PercentComplete"
            /> <Value Type="Number">1</Value>
          </Leq>
        </And>
      </ValidWhen>
    </Component>
  </FormComponentBehavior>
```

Views

The Views page contains the following:

Table 16. Views

Element	Description
Display Messages from DAO Provider	Allows you to display messages, such as informational messages or warnings at the top of a web app. For more information on DAO providers, see System Integration Developer Guide.
Custom Message Display	Allows you to specify a custom message based on certain conditions. We currently do not support mapping for the messages that the Display Messages From DAO Provider property enables. Turn on Advanced Mode if you want to edit Custom Message Display in XML format. CustomMessageDisplay contains the following properties: • Display When — allows you to set the conditions to display a custom error message. When defining the Display When condition, the following operators are supported: Eq (Equal) Neq (Not Equal) Null, Is Not Null, Begins With, Contains and Matches (for regular expression). • Custom Message — The error message that you want displayed when the Display When condition is set. If a Display When condition is set during runtime but a custom message is not specified, the original message is displayed. If you want to hide the original message, use a blank string or any html code that renders no visible cues, such as , for the CustomMessage attribute. When multiple Custom Message elements are defined for this property, the first Custom Message, whose Display When condition is set, is used. If no conditions are met, an error message from the selected external system is displayed.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Toolbar
- Control
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 17. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 18. Toolbar

Element	Description
Toolbar Location	Allows you to define where a toolbar for the list form should be displayed. The choices are TopAndBottom, Top, Bottom or None. Select None if you do not want to display the regular toolbar. Only the Ribbon buttons are displayed in this case.
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.

Control

The Control page allows you to set the appearance of your user controls in a web app. It contains the following:

The Control page contains the following:

Table 19. Control

Element	Description
Rich Text Editor Skin Name	Allows you to select the skin name for the rich text editor. The rich text editor appears in the form when the Type attribute of the Field element in the Display Fields property is set to RichText. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins When creating a custom skin, you can refer to the Sample Skin folder in the install directory. Clear your browser cache frequently while working with custom skins. In IE, CSS cache can be cleared by clicking the **Clear Cache** button in the CSS tab of Developer Tools, located under the Tools menu of the browser.
Drop-Down Skin Name	Allows you to specify the skin name for the drop-down menu control for the choice field. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 20. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.

Table 20. Layout

Element	Description
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 21. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 22. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 23. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Indicates Required Field Button Text Resource ID	Allows you to enter a text resource ID for the Indicates Required Field button.

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qSIListView

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Overview

qSIListView displays data from your external system in a grid, and allows you to:

- customize the look and feel by using Skin.
- divide the data into multiple pages to limit their size and render pages faster. This feature is called Paging. There are two Paging Modes available: Numeric Pager and Next Previous. If the number of rows in a table is more than the specified Page Size, the data is divided into multiple pages and a Pager is displayed at the bottom of the listview to enable the user to navigate to different pages
- retrieve the data from your external system one page at a time using custom paging. In order to use this feature, your external system must provide a method to retrieve one page of data by using the page size and page index parameters. If your external system does not support custom paging, you can still page your date as described in the previous point.
- define a static filter using Complex Filter (For more information, see Complex Filters on page 21.). The Complex Filter expression supports time functions (such as AddDays) and time expression (such as [TODAY]) to filter out data based on a moving time window. This feature is called Data Aging.
- define the initial static sort expression using the Sort Fields property. The listview can sort the data based on multiple fields.
- sort the data in the listview by clicking the grid headers. Clicking the header repeatedly will change the sort direction for that field from ascending, descending and neutral (no filter). You can sort the data in the listview using multiple fields.
- define multiple levels of grouping on the data using the Grouped attribute in the Display Fields property. You can also display the sum or item counts in the group header.
- show or hide the listview based on the site group membership of the currently logged in user by using the Show User Groups and Hide User Groups properties.
- display the data in virtually any format that can be achieved with JavaScript and HTML. With this feature, you can create many types of custom reports on the data. The JavaScript and HTML for a custom display is defined in the Results Header, Results Body and the Results Footer properties.
- consume a filter from another web app that implement IWebPartRow or IWebPartParameter interface.
- consume a row from another web app that implement IWebPartRow interface. The row that the listview consumed can be passed into the operation to retrieve the data as a parameter or can be used in the custom action.
- display, create, and edit data in your external systems. Out of the box, this Web app supports the DAO Provider for:
    - Web Services
    - SQL Server
    - Oracle

- Domino Server using XML over HTTP
- Salesforce
- K2Server (for SharePoint 2010 only)

TIP: To better understand SI web apps, read the System Integration Developer Guide.

qSIListView Pages

You can configure this web app through its tabs that are accessible through ezEdit. qSIListView contains the following pages:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page contains the following:

- Primary Content
- Filtering
- Search/Filter Panel
- Sorting/Paging
- Custom Display

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the Web app, or accept the default. This field is mandatory.
Catalog	See Catalog on page 342.
Display Fields	See Display Fields on page 344.

Catalog

Entities contain the following elements:

Table 2. Catalog

Element	Description
Advanced Mode	Turn on if you want to edit Catalog in XML format.
System	Allows you to specify the system name that is defined in the System Integration configuration file. If the system name does not exist in the System Integration configuration file, you will get an error.

Table 2. Catalog

Element	Description
Service	Allows you to specify the service name that is defined in the System Integration configuration file. The service name that you specify here must belong to system that you specify in the System attribute. If the service name does not exist in the System Integration configuration file, you will get an error.
Name	Allows you to specify the name of the entity which must be unique within this Catalog. The name does not have to match with any name in your external system. However, it is recommended that you use a descriptive name for your entity.
Set Session Name	Allows you to enter name of the session variable where the edited or newly created item is stored when it is saved, or the item that is being displayed or edited is stored when it is loaded.
Reset Session Names	Allows you to reset (set to NULL) the value of the session variable whose name is specified in this attribute. Specify multiple names by separating them with commas.
Default	Allows you to define this entity as the default for the list form. If this element is not specified, the first entity that is listed in the catalog becomes the default entity. The default operation of the default entity is the operation that is used to retrieve the data when the list form is loaded for the first time in edit or display mode.

You can add operations to your entities by configuring the following elements:

Table 3. Operations

Element	Description
Name	Allows you to specify the name of the operation. This name does not have to match with any name in your external system. This name is used to refer to this operation in the Action property.
Method	Allows you to specify the real name of the operation in your external system. For example, it may refer to the name of a web service method. Or it may refer to the name of a stored procedure in your SQL Server database.
Default	Allows you to define this operation as the default. The default operation is the first operation that is called to retrieve the entity to be displayed or edited. If this attribute is not specified, the first operation listed in the entity becomes the default operation.

You can define parameters for the operation by configuring the following elements:

Table 4. Parameters

Element	Description
Name	Allows you to specify the name of the parameter.
Source	Allows you to define the source of this parameter. The source can be one of the following: • DefaultValue — the value of the parameter that is the default • NullValue — the value of the parameter is blank • FixedValue — the value of the parameter that is defined in the Value attribute • HttpRequest — the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter. • Input — the value of the parameter that is retrieved from one of the input fields in the form. You specify the name of the input field in the SourceName attribute. Additionally, you can retrieve the current user information as the value of the parameter. You can specify one of the following name in the SourceName attribute to retrieve the current user information: • RowFromAnotherWebApp— the value of the parameter that is retrieved from the row that is consumed from another web app. You specify the name of the field that is consumed in the SourceName attribute. • Session — the value of the parameter that is retrieved from the row that is stored in the session. You specify the name of the session in the SessionName attribute. You specify the name of the field that is consumed in the SourceName attribute. • ComplexType — the value of the parameter is an object based on the Type attribute and Member definition inside the Parameter. Array and nested complex types are supported. • Array — the value of the parameter is an array of values • XML — the value of the parameter that is dynamically built when the condition is execute at runtime
Usage	Allows you to define the direction for this parameter. The options are In, Out, InOut, or ReturnValue.

You can define one or more Property elements.

Table 5. Properties

Element	Description
Name	Allows you to specify the name of the property. Refer to the documentation for the DAO Provider to your external system will tell you the name of the property that you must define.
Type	Allows you to specify type of value that is specified in the Value attribute. Example: System.String.
Value	Allows you to specify the value of the property.

Display Fields

This property defines what fields should be displayed in the ListView and how the fields are populated.

Advanced Mode

Turn on if you want to edit Display Fields in XML format.

Data Index/Data Member

NOTE: This section is optional.

The Data Index allows you to define the index of the data table that contains the data to be displayed. This is useful when the operation that retrieves the data from external system returns multiple data tables. If the data table does not have any meaningful name, use the Data Index property.

The Data Member allows you to define the name of the data table that contains the data to be displayed. This is useful when the operation that retrieves the data from external system returns multiple data tables and those tables do not have any meaningful name. If the data table has meaningful name, you can refer to it by using the Data Member property.

If neither the Data Member or the Data Index is specified, the first data table in the data set is used.

Fields

Click **Add Field** to add fields to be displayed in the web app. You can add the following values for the fields to be displayed.

Table 6. Fields

Values	Description
Name	Displays the field name.
Title	Allows you to change the displayed title for the field. The value can be a plain string or an encoded HTML string. Change the displayed title, for example, when the title is too long or to make the title more descriptive.
Width	Allows you to set the width. It can be a plain string or an encoded HTML string. The Description is added below the field value.

Field Properties

You can further define properties for the fields to be displayed by configuring the following:

Table 7. Field Properties

Property	Description
Field Name	Displays the field name.
Title	Allows you to change the displayed title for the field. The value can be a plain string or an encoded HTML string. Change the displayed title, for example, when the title is too long or to make the title more descriptive.
Title Resource ID	If supporting a multi-lingual site, you may want to display a different Title for the field depending on the current culture. This property defines the identifier in the Resource List that is used as the title of the field. The TitleResourceID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier is not found, the default Title is used.
Horizontal Align	Allows you to set the horizontal alignment.
Vertical Align	Allows you to set the vertical alignment.
Hidden	Allows you to hide the field. If the field is hidden, the qSIListView will not modify that field at all. If you hide the field using the Hidden attribute, the field is processed according to the way it is defined, but it does not display.
Width	Allows you to set the width of the control in pixels. **NOTE:** Some controls, such as the Rich Text Editor, have minimum width and it will not honor the specified width if it is smaller than its minimum width.
Item Style	Allows you to define a distinct style for the item. You should define the style as you would define the style in CSS file.
Item CSS Style	Allows you to define a distinct style for the column and you already have defined the style in an external CSS file. This attribute takes precedence over the Item Style attribute.

Table 7. Field Properties

Property	Description
Fixed Value	Allows you to enter the text that is displayed as a value for this field. This is useful when you want static text such as Edit displayed in a field. You can then make this text a hyperlink using either the LinkTo or LinkToSource attributes. **NOTE:** If you are using Advanced Mode, you can configure Fixed Value as in the following example: <Field Name="EditColumn" FixedValue="Edit" LinkTo="Lists/ListName/EditForm.aspx?ID=<%ID%>" /> To display an icon instead of a text, you can do the following (it assumes that you have pencil.gif in the images folder in your site: <Field Name="EditColumn" FixedValue="<img src="images/edit.gif" border=0>" LinkTo="Lists/ListName/EditForm.aspx?ID=<%ID%>" />

Calculated Value	Recognizes the field replacement expression <%Field%> to refer to a field. The listview replaces the field replacement expression with the value of the field for each row of data. When using this attribute, you must use the Name of a field that does not exist in the list. It is because the listview constructs this field dynamically instead of using an existing field in the list. If you use the name of an existing field, you will get an error that the field already exists.
	NOTE: If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively, unless you type in the value in the Display Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. This attribute helps you:
	• Display a full name by concatenating the first name and last name as follows:
	<Field Name="CalculatedFullName" Title="Full Name" CalculatedValue="<%First Name%> <%Last Name%>" />
	• Display the status of your project with different colors depending on its value. In order to do this, you can write a JavaScript function and then call that JavaScript function using this attribute.
	<Field Name="CalculatedProjectStatus" Title="Status" CalculatedValue="<script>FormatProjectStatus('<%Status%>');</script>" />
	This assumes you have a JavaScript method called DisplayProjectStatus defined on your page or in a JavaScript file that is included in your page. That JavaScript method looks like:
	<script language="javascript"> function FormatProjectStatus(status)
	{
	var displayedStatus =
	status; if (status = 'Behind')
	{
	displayedStatus = '' + status + '';
	}
	return displayedStatus;
	}
	</script>
	You can format the value of the field in virtually any way you want. For example, you can replace the text value with different images to give the user a pleasant look in the presentation.
	NOTE: You can only call one JavaScript function in the CalculatedValue attribute and the JavaScript function must return a string.

Table 7. Field Properties

Property	Description
Link To	The listview turns the field into a hyperlinked column to the specified URL. The URL can be an absolute or relative URL. The LinkTo can use the <%field name%> field replacement expression. **NOTE:** If you are using Advanced Mode, you must use the encoded form of the < and > characters, which are < and >, respectively unless you type in the value in the Display Fields editor in the List View Editor, where the Editor will encode the characters automatically for you. Every field that you refer to in the field replacement expression must be specified in the Display Fields property. If you do not want to show that field to the user, you can use the Hidden attribute to hide the field. If you use a relative URL, the URL is appended to the URL of the current page. Here is an example on how to make the Title field a hyperlink column to the edit form of the Tasks list: <Field Name="ProjectName" LinkTo="ProjectDetail.aspx?ID=<%Projec tID%>&Source=default.aspx" />
Link To Source	The listview will make the field value a hyperlink to the URL specified in the Source HTTP parameter of the current request. For this option to work, the current page URL must look like: http://.....?Source=.... The LinkToSource is useful when you want to make the URL in the link dynamic. In that case, you can pass in the URL for the link into the HTTP parameter of your page. For example, say that we have a page where the user can select a particular contact from the Contacts list. This page might be useful for several cases in your application and you cannot hard code the URL because you may want the user to be redirected to different URL depending where they are in the application. In that case, you can specify the URL for the hyperlink in the URL of the page.
Open Link In	Allows you to define how the Link To Field opens. **NOTE:** If you select Dialog, you can configure the dialog width and height. **NOTE:** For Internet Explorer 9, the "NewWindow" option requires the user to set the following: Internet Options | General |Tabs | Settings > When a pop-up is encountered > 'Always open pop-ups in a new window'.
HTML Encode	Allows the value in the field to be encoded first prior to being displayed. You need to set this to true if this field contains values that are surrounded by < and >, such as <abc>. Without the encoding, the value will not be displayed properly.

Table 7. Field Properties

Property	Description
Display Format	Specifies how the field value is formatted when displayed. For more detail about the syntax of the DisplayFormat attribute, see Display Format on page 14. The Field element can contain one or more Aggregate elements if its Grouped attribute is set to true. The following are the attributes of the Aggregate element: • Text — The text that will precede the aggregated value when it is displayed. • Aggregate Function — These are the choices for the aggregate function: Sum, Min, Max, Last, First, Count. • Field Name — The name of the field where the aggregation is performed. • Format String — This attribute defines how the aggregated value is displayed. See the syntax of the format string in the DisplayFormat attribute.
Grouped	Allows the data to be grouped by this field. You can set the Grouped attribute of multiple fields to true if you want to have a subgroup. • Group Sort Direction — This attribute determines whether the values in the header of the grouped field must be displayed in ascending or descending order. The options are asc for ascending order or desc for descending order. The default value is asc. • Group Expanded — If set to true, the group is initially expanded. Otherwise, it is collapsed. If not specified, the default value is true. When you select Grouped, you can add aggregate elements. • Text — allows you set the text that precedes the aggregated value when displayed • Aggregate Value — allows you to choose an aggregate function • Field Name — allows you to enter the name of the field where the aggregation will happen • Format String — defines how the aggregated value is displayed

Filtering

The Filtering page allows you to use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 8. Filtering

Element	Description
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

Search/Filter Panel

The Search/Filter Panel allows you to define the panels for search, filter, and replace in the web app.

The Search/Filter Panel contains the following elements:

Table 9. Search/Filter Panel

Element	Description
Searched Fields	See Searched Fields on page 349.

Table 9. Search/Filter Panel

Expand Filter panel on Load	Allows you to automatically open the Filter panel by default so that the user can perform a search quickly. When set to true, the Filter panel opens when the web app is loaded for the first time.
Turn On List Searcher Mode	Allows the user to perform a search before the listview display any data.
Filter Criteria Usage	Allow you to pass the filter criteria to the DAO provider layer. There are three options in this property: • PassToDAOProvider — The filter criteria is passed to the DAO Provider. When you select this, the filter criteria will not be used to filter the data that is returned by the external system (because the SI List View assumes that the data has been filtered by the external system). • FilterData — The filter criteria is used to filter the data that is returned by the external system. • PassToDAOProviderAndFilterData — The filter criteria is passed to the DAO Provider and is used to filter the data that is being returned by the external system. When you select PassToDAOProvider or PassToDAOProviderAndFilterData, you can use the filter criteria as parameter values in the operations in the Catalog property. In order to do so, you specify the parameter source as Input and the source name as: • FieldName.Value — allows you to retrieve the value that is entered by the user in the Filter panel for a specific field. • FieldName.MaxValue — allows you to retrieve the maximum value that is entered by the user in the Filter panel for the field that has Between operator, such as DateTime field. • FieldName.Operator - allows you to retrieve the operator that is specified by the user for a specific field. There is a possibility that your back-end only handles "Equals" operator. In that case, you can use the FixedOperator="Equals" attribute in the Searched Fields property so that the user can only use the Equals operator.
Panel Button Location	Determines the location of the Go, Reset and Close buttons in the Filter panel. This property also determines the location of the Go and Close buttons in the Replace panel.

Searched Fields

This property defines which fields are displayed in the Filter panel. If defined, the web app will display Filter button in the toolbar. To disable the search feature, you can leave this property blank. If defined, the web app will display Filter or Search menu items under the Actions button in the toolbar. To disable the search feature, you can leave this property blank.

You will be able to perform a search by pressing Enter.

NOTE: Pressing Enter will not allow you to perform a search on such fields as external data, people picker, managed metadata, and a drop-down list. Instead, the default behavior will occur.

You can further edit fields using the following elements:

Table 10. Searched Fields

Element	Description
Advanced Mode	Turn on if you want to edit Searched Fields in XML format. This property is an XML string in the following format: <Fields> <Field Name="fieldName" [optional attributes]/> <!-- To search a cross site lookup field, use one of the following two formats --> <Field Name="fieldName" DisplayFieldName="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> <Field Name="fieldName" DisplayFormat="fieldName" SortField="fieldName" [optional attributes]> <List SiteUrl="siteUrl" SiteName="siteName" ListName="listName"/> </Field> </Fields>
Name	Indicates the element you are editing.
Type	Allows you to select a type of field.
Title	Displays title for the field. The value can be a plain string or an encoded HTML string.
Default Value	Defines the default value for the field. You can define a text, a number or a date. A date value must be specified in ISO 8601 format: YYYY-MM-DDThh:mm:ssZ, for example: midnight of February 14, 2002 is 2002-02-14T00:00:00Z.
Default Operator	Defines the default operator for the field.
Fixed Operator	Defines the operator for the field. If specified, the drop-down menu to select the operator for this field is turned off.
Column Count	Defines the number of columns for the options in a multi-choice field or in a choice-and-lookup field if the Enable Multi Choice attribute is set to True. This is useful in case your choice or lookup fields have too many choices and you want to break the choices into several columns to minimize the vertical scrolling in your form.
Date Time Format	Available if you select DateTime as a type.

Table 10. Searched Fields

Element	Description
Enable Multi Choice	Available if you select Choice as a type. Allows you to select multiple options for the choice-and-lookup field. Therefore, the user can specify a condition like "A or B". This attribute is ignored by other field types. To search a cross-site lookup field, you must specify one or more List elements inside the Field element. The cross-site lookup field is displayed as two drop downs.
Choice Population Type	Allows you to define how you want to define the options in your Choice field. It is a drop-down list with the following options: Manually or Using Operation in the Catalog. For more information, see the below paragraphs. If you select Choice as the field type, you can define the options in your choice field. You can hardcode the options directly under the Field element. Select the ChoicePopulationType of 'Manually' to do this. Here is an example: <Field Name="EmployeeStatus" Type="Choice"> <Option Text="Active" Value="1" /> <Option Text="Retired" Value="2" /> </Field> If the Value attribute is not specified, the Text is used as the value. You can specify an action that will retrieve the options from your external system. Select the ChoicePopulationType of 'Using Operation in the Catalog' to do this. The syntax is: <Field Name="fieldName" Type="Choice"> <Lookup Operation="EntityName.OperationName" DataMember="tableName" DataTextField="textFieldName" DataValueField="valueFieldName" /> </Field> -OR- <Field Name="fieldName" Type="Choice"> <Lookup Operation="EntityName.OperationName" DataIndex="index" DataTextField="textFieldName" DataValueField="valueFieldName" /> </Field> • The Operation defines the operation that is used to retrieve the options from the external system. The syntax for the operation is EntityName.OperationName. Both the entity and the operation must already be defined in the Catalog property. • The DataMember defines the data table name that contains the options in case the operation returns multiple tables. If external system returns multiple data tables without name, you can use the DataIndex attribute to refer to the table. The index is a number and it starts with 0 (not 1). • The DataTextField defines the column in the data table whose value is displayed in the drop-down menu. • The DataValueField defines the column in the data table that contains the real value that should be saved back to the external system.

Sorting/Paging

The Sorting/Paging page allows you to define the sorting criteria and paging type and size in the web app.

The Sorting/Paging page contains the following elements:

Table 11. Sorting/Paging

Element	Description
Sort Fields	Allows you to define the initial sorting criterion for the data. This is the syntax for this property: FieldName1 [SortDirection], FieldName1 [SortDirection] SortDirection is either ASC (ascending order) or DESC (descending order). The FieldName and the SortDirection are case sensitive. If the SortDirection is not specified, ascending order is assumed. For example: First Name ASC, Last Name DESC, Company NOTE: You cannot define criteria to sort custom fields. To sort custom fields, click the column in qListView. You can sort custom fields under the following circumstances only: • the custom field search data total count is less than MaxQueryRowCount's value (by default, this value is 2000) • the custom field is only a calculated value • the custom field's calculated value is not written in JavaScript code
Allow Custom Paging	Defines whether or not your default operation supports custom paging. Custom paging feature enables your operation to retrieve the data from your external system one page at a time. If you set this property to true, your operation should take the PageSize, PageIndex and SortFields parameters. Click here to see the example in the Catalog property for an operation that supports custom paging feature. If your default operation does not support custom paging, you should set this property to false. In the absence of custom paging, the SI List View will automatically page the data for you if the number of rows in your data table is larger than the number in the Page Size property. If you deal with a large number of data in the external system, we recommend that you use custom paging to improve the response time of the list view.
Paging Mode	Allows you to select the type of pager that is displayed at the bottom of the listview if the items must be divided into multiple pages.
Page Size	Allows you to set the maximum number of rows that is displayed in one page. If the number of rows is larger than the Page Size, the data is divided into several pages. You can navigate the pages using the Pager displayed at the bottom of the listview.

Custom Display

The custom display properties lets the page designer customize the display of the data using HTML and JavaScript. The custom display appears after the default display (if the Display Fields property is defined).

Three properties define the custom display. The example in each property illustrates how to display the FullName field of the search results in an HTML table.

Table 12. Custom Display

Element	Description
Results Header	Allows you to set the value of this property that is rendered once before the Results Body. This property is a good place to include any JavaScript file, defining any JavaScript function, or define any HTML elements for the header. Example: These are the customers that match your search criteria. <table><tr><th>Full Name</th></tr>

Table 12. Custom Display

Results Body	Allows you to set the value of this property that is repeated once for every row in the search results. You can use the <%field name%> field replacement expression to refer to the value of a certain field. Example: <tr><td><%FullName%></td>
Results Footer	Allows you to set the value of this property that is rendered once after the Results Body. Example: </table>

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Actions
- Views

Actions

This property enables you to define additional buttons in the toolbar or context menu item in the context menu. You can program that button or context menu item to do a series of actions. The listview supports some built-in actions. However, you can write your own custom action using one of the .NET languages, compile it, and call it by the listview. See Custom Action Help on page 375 to see how to write your own custom actions.

NOTE: The toolbar button affects all the items that are selected in the listview. The context menu item affects only the item that is being right-clicked regardless of how many items are selected in your listview.

Here are some ways that you can use this functionality:

- Add a custom toolbar button called "Assign All to Me" that will assign all of the selected tasks in the listview to me.
- Add a custom toolbar called "Approve" that will change the status of all of the selected expense items to Approved.
- Create a custom context menu item called "Publish" that will move the right-clicked document into another document library.
- Create a custom context menu item or toolbar item to start a workflow.
- With the ability to write your own custom action, you can virtually do anything to the data when you click the custom button that you define.

The Actions page contain the following elements:

Table 13. Actions

Element	Description
Custom Actions	For more information, see Custom Actions on page 353.

Custom Actions

NOTE: The custom action in the listview does not support the Save action.

The Custom Actions element contains one Toolbar element and one Context Menu element. These elements can contain one or more Action Item elements. You can associate the Action Item with one or more Action

elements. The Action element define a certain operation that is carried out by the action item when it is clicked.When you add an action item, you can configure the following:

Table 14. Custom Actions

Element	Description
Advanced Mode	Turn on if you want to edit Custom Actions in XML format. <CustomActions> <Toolbar> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prom <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </Toolbar> <ContextMenu> <ActionItem ID="UniqueID" Text="text" TextResourceID="textResourceID" Position="0" PromptText="promptText" PrompTextResourceID=”prompTextResourceID” ImageUrl=”URL” AccessKey=”AccessKeyCharacter”> <Action Type="Delete" /> <Action Type="Move" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="Copy" TargetFolder="targetFolder" TargetSiteURL="targetSiteUrl" TargetListName="targetListName" /> <Action Type="GoToURL" URL="TargetURL"> <Parameter Name="parameterName" Source="Session" SourceName="fieldName" SessionName=”sessionName” /> <Parameter Name="parameterName" Source="RowFromAnotherWebPart" SourceName="fieldName" /> <Parameter Name="parameterName" Source="HttpRequest" SourceName="httpParameterName" /> <Parameter Name="parameterName" Source="ListItem" SourceName="httpParameterName" /> </Action> <Action Type="GoToSource"/> <Action Type="Custom" Class="IUIActionImpl" /> </ActionItem> </ContextMenu> </CustomActions>
IsSeparator	Allows you to set the item as a separator.
ID	Allows you to enter a unique ID that will identify the item. Use a descriptive identifier to configure the action item with the editor.
Text	Allows you to enter how the action item is displayed in the toolbar.

Table 14. Custom Actions

Element	Description
Text Resource ID	Allows you to define this property if you support a a multi-lingual site. This attribute defines the identifier of the string in the Resource List that is used as the title of the Web app. The Text Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the value in the Text attribute is used.
Prompt Text	Allows you to prompt the user to click the toolbar button or the context menu item.
Prompt Text Resource ID	Allows you to define this property if you support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the title of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Access Key (Toolbar Only)	Allows you to define one character from the Text attribute that becomes the access key to this toolbar button or context menu item. For example, if you define a letter T as the access key, you can press ALT+T and the browser will put the focus on this button or context menu item. If there are multiple elements on the page with the same access key, you can repeat ALT+T repeatedly until you get the focus on this toolbar button or context menu item.
Position	Allows you to set the position of the button in the toolbar. The index starts with 0.
Show User Groups	Allows you to list SharePoint groups whose members can view the Web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot

When you add an action, you can configure the following:

Table 15. Action

Element	Description
Name	An optional element which allows you to identify a given action in order to access it from another action. You can refer to this action from the GoToURL action and from ICustomActionEx Interface.

Type	Allows you to determine the type of the action. Here are the options:
	• GoToURL — redirects the user to a specific URL. You must specify the URL and where you want the URL to open. If you select to open the URL in a dialog, you can configure the dialog width and height.
	• You must specify the following parameters:
	  • Input - the current user information as the value of the parameter
	  • Session - the name of the session variable where the value comes from when the source is set to Session
	  • HttpRequest - the value of the parameter that is retrieved from the HTTP parameters in the page URL. The name of the HTTP parameter is defined in the SourceName attribute. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter.
	  • ListItem - the value of the parameter is a list item or row
	  • RowFromAnotherWebApp— the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem. There are two types of action that can produce an output: an action with Type of ExecuteOperation, and an action with Type of Custom that points to custom action implementation of ICustomActionEx Interface. You do that by defining the SourceName attribute of the action. This is the syntax of the SourceName attribute when you use ResultFormAction source: <ActionName>.<ResultType>[.Name], where ActionName refers to the Name attribute of the action that produces the output, ResultType can be OutParameter (if the action result is returned through one of the out or inout parameter) or RawData - (if the action result is returned as an object). Name is optional. It further designates the object we want to use for the parameter. You do not have to specify the Name when the ResultType is RawData. However, if the ResultType is OutParameter, this name specifies the name of the out or input key value pair.
	  • ResultFromAction - the parameter for the GoToURL action can be retrieved from the output of another action that comes first in the sequence of actions defined in the ActionItem
	  You must define a source name (where in the source you want to get your information from), name (the name of the parameter that is appended to the URL you specified), and Session (the name of the session variable where the value comes from when the source is set to Session)
	• GoToSource — redirects the user to the URL specified in the Source HTTP parameter. The URL to the page must look like: http://...?Source=URL for this option to work.
	• StartWorkflow — starts the specified workflow in the Workflow Name drop-down field. You must select a Workflow name.
	• ReturnToMasterChart — returns the user to the master chart page. You use this action type if this web app is located in the drill down page.
	• Custom — implements your own custom action and call it with this action type. Enter a Class name that implements the ICustomActionEx or ICustomAction interface, or select a class from the drop-down list, if available.

Views

The Views page allows you to set views so the user to view the data in Excel or a chart.

The Views page contains the following elements:

Table 16. Views

Element	Description
Search Session Name	The listview will store the search criteria, last selected folder, sort criteria, and other listview dynamic settings in the session variable with this name. The listview also use the Search Session Name to communicate those settings to qExcelViewer and qChartView located in the page whose URL specified in the Excel Viewer URL or Chart Viewer URL property, respectively. Therefore, the Search Session Name in those web apps must be set to the same value as the session name in this SIListView.
Display Message from DAO Provider	The external data that comes from the backend system sometimes contains messages, such as informational messages or warnings. The SI List Form displays these messages at the top of the webpart. The Display Messages From DAO Provider property determines whether or not these messages should be displayed. There are times when you want to suppress these messages especially when the messages are not useful to the end user.
Custom Message Display	Allows you to specify a custom message based on certain conditions. We currently do not support mapping for the messages that the Display Messages From DAO Provider property enables. Turn on Advanced Mode if you want to edit Custom Message Display in XML format. CustomMessageDisplay contains the following properties: • Display When — allows you to set the conditions to display a custom error message. When defining the Display When condition, the following operators are supported: Eq (Equal) Neq (Not Equal) Null, Is Not Null, Begins With, Contains and Matches (for regular expression). • Custom Message — The error message that you want displayed when the Display When condition is set. If a Display When condition is set during runtime but a custom message is not specified, the original message is displayed. If you want to hide the original message, use a blank string or any html code that renders no visible cues, such as , for the CustomMessage attribute. When multiple Custom Message elements are defined for this property, the first Custom Message, whose Display When condition is set, is used. If no conditions are met, an error message from the selected external system is displayed.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Grid
- Toolbar
- Context Menu
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 17. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Grid

The Grid page allows you set the appearance of the grid in the web app.

The Grid contains the following:

Table 18. Grid

Element	Description
Selection Column Type	Allows you to set a column type: • None: Use None if you want to click the row to select it or press Ctrl or Shift and click the row to select multiple rows. • MultiRowSelector: Use this option if want the listview to display a check box as the first column. To select a row, select the check box for that row. To select multiple rows, select the check box for each row to be selected. • SingleRowSelector: Use this option if want the listview to display a check box as the first column. To select a row, select the check box for that row.
Hide Expand\Collapse Image When No Child Item	Allows you to hide the +/- sign next to a list item if the item contains 0 child items.
Skin Name	Allows you to select the skin name for the grid in the listview. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.
Header Style	Allows you to enter the style for the header. You can define the style as you would in a CSS class. Example: font-family: verdana; color: black; background-color: #FFCC99; height: 20px;
Header CSS Class	Allows you to enter the CSS class name for the grid's header. If this property is specified, it will override the style defined in the Header Style property. You must define the class specified here in an external CSS file.
Pager Style	Allows you to enter the style for the pager. You can define the style as you would in a CSS class; for example, font-family: verdana; color: black; background-color: #FFCC99; height: 20px;
Pager CSS Class	Allows you to enter the CSS class name for the pager. If this property is specified, it will override the style defined in the Pager Style property. You must define the class specified here in an external CSS file.
Item Style	Allows you to enter the style for the item. You can define the style as you would in a CSS class; for example, color: red; font-weight: bold
Item CSS Class	Allows you to enter the CSS class name for the item in the odd-numbered row (1, 3, 5, and so on.). If this property is specified, it will override the style defined in the Item Style property. You must define the class specified here in an external CSS file.

Table 18. Grid

Element	Description
Alternating Item Style	Allows you to enter the style for the item in the even-numbered row (2, 4, 6, and so on). You can define the style as you would in a CSS class; for example, font-family: verdana; color: yellow; font-weight: bold;
Alternating Item CSS Class	Allows you to enter the CSS class name for the item. If this property is specified, it will override the style defined in the Alternating Item Style property. You must define the class specified here in an external CSS file.
Selected Item Style	Allows you to enter the style for the selected item in the grid. You can define the style as you would in a CSS class; for example, backgroundcolor: orange !important; color: blue !important; You can add "!important" after the color name so that this color will override the selected item style provided by the skin.
Selected Item CSS Class	Allows you to enter the CSS class name for the selected item in grid. If this property is specified, it overrides the style defined in the Selected Item Style property. You must define the class specified here in an external CSS file.
Main View Appearance Field Name	Allows you to define the name of the field whose values determine the color of the row in the main view. The value of this field is compared against the FieldValue and FieldValueRange in the Color Appearance property.
Color Appearance	Allows you to define the color of the rows in the main view, child view, and group header. Turn on Advanced Mode if you want to edit Color Appearance in XML format. <Appearance> <MainViewAppearance> <RowAppearance FieldValue="value1" BackgroundColor="color1" FontColor="color2" /> <RowAppearance FieldValueRange="number - number" BackgroundColor="color3" FontColor="color4" /> </MainViewAppearance> <GroupeHeaderAppearance> <RowAppearance FieldValue="value1" BackgroundColor="color1" FontColor="color2" /> <RowAppearance FieldValueRange="number - number" BackgroundColor="color3" FontColor="color4" /> </GroupHeaderAppearance> </Appearance> To add color for the group header, you must enable grouping for displayed fields before specifying field value, background color and font color. Select the Edit button, then click Add Row Appearance to enter values in the following: • Field Value — value for the field • Field Value Range — a range of values for the field, including negative values • Background Color — the background color of the row for the specified value in the Field Value attribute. The color can be specified as a well-known color such as white, black, cyan, lightGray, as a RGB value such as 255, 255,255, or you can specify it as #FFFFFF, #CCDDEE. • Font Color — the font color of the row for the specified value in the Field Value attribute. The color can be specified as a well-known color such as white, black, cyan, light gray, as a RGB value such as 255, 255,255, or you can specify it as #FFFFFF, #CCDDEE. The Font Color attribute is ignored if you specify a URL in the LinkTo attribute or set the LinkToSource or LinkToTargetURL attributes to true.

Toolbar

The Toolbar page allows you to configure the appearance of the toolbar. It contains the following:

Table 19. Toolbar

Element	Description
Toolbar Skin Name	Allows you to enter the skin name for the toolbar.
Show Export Button	Allows you to display the Export button.
Show Print Button	Allows you to display the Print button.

Context Menu

The Context Menu page allows you to set the look and feel of the context menu. It contains the following:

Table 20. Context Menu Appearance

Element	Description
Show Context Menu Method	Allows you to define how the context menu is shown if the Enable Context Menu property is set to True. There are three options in this property: • RightClick — The user can open the context menu by right clicking the row in the listview. This is the default option. • ShowContextMenuColumn — The listview will show the context menu column. The context menu column shows a drop-down arrow image which will open the context menu when clicked. • RightClickAndShowContextMenuColumn — The user can open the context menu either by right clicking the row or by using the context menu column.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 21. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web part. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 22. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page

Table 22. Other

Element	Description
Allow Hide	Select this check box if you want the web app hidden
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web part
Title URL	Allows you to add the title of a URL as extra information about the web part
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web part, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Ajax
- Security
- Resources

Ajax

The AJAX page allows you to configure AJAX in your web app.It contains the following:

Table 23. AJAX

Element	Description
Enable AJAX	Allows you to enable AJAX for the listview. AJAX enables the listview to carry out some operations within the grid without refreshing the whole page. For example, when you sort a column by clicking its column header or change the page by clicking the pager, the listview only refreshes the data in the grid without causing the whole page to post back. However, there are times when AJAX causes some issues. In this case, you must disable the AJAX capability of the listview. The following are some known situations where you need to disable AJAX: • In Internet Explorer 6, the data grid will fail to carry out the AJAX operation. If your user base reports this issue, you can disable the AJAX to fix it. • If you use javascript's document.write() method in the Results Body property of the Custom Display, the text that is generated using document.write() will not be rendered after the AJAX operation. This is true even if you do not call the document.write() directly within the Results Body but rather through another javascript function that calls document.write().

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 24. Security

Element	Description
Show User Groups	Allows you to list SharePoint groups whose members can view the web app. Separate groups with commas.
Hide User Groups	Allows you to list SharePoint groups whose members cannot view the Web app. Separate site group names with commas (for example, Administrators, Readers). If a user is a member of a group that is defined in both Show User Groups and Hide User Groups, the user cannot view the Web app.
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization elements in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 25. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the Web app , whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the Web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.
Action Button Text Resource ID	By default, the text for the Action toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Action toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Filter Button Text Resource ID	By default, the text for the Filter toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Filter toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Export Button Text Resource ID	By default, the text for the Export toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Export toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.
Print Button Text Resource ID	By default, the text for the Print toolbar button is retrieved from the resource file that is included in the product. However, we may not have the resource file in the culture that you want to use. In this case, you can simply define the text for the Print toolbar button in the Resource List and specify its Resource ID here. This Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default text from the invariant resource file is used.

22

qSISelector

- Overview
- qSISelector Pages

Overview

qSISelector displays data from a SharePoint list in a drop-down control. This web app remembers the last item selected, even after you leave the page.

Using qSISelector, you can:

- manage multiple projects in one workspace. You can place a selector that displays the project information on every page in your application and use that selector to filter the data in the qListView or any other view on the page. Because the selector remembers the last item selected even as you move from page to page, you only see the data for the same project until you switch to another project.
- place a selector above a qListForm to select a certain item and then feed that item to the list form because the qSISelector is a row provider.
- display, create, and edit data in your external systems. Out of the box, this Web app supports the DAO Provider for:
    - Web Services
    - SQL Server
    - Oracle
    - Domino Server using XML over HTTP
    - Salesforce
    - K2Server (for SharePoint 2010 only)

TIP: To better understand SI web apps, read the System Integration Developer Guide.

qSISelector supports multiple languages. You can define a different Title for different languages using the Resource List and the Title Resource ID properties. The culture for the page can be defined by appending the Culture HTTP parameter to the page URL. For example:

http://hostname/sites/sitename/default.aspx?Culture=en-US qSISelector

implements the following web app connection interfaces:

- IWebPartRow interface, which provides a row to another web app, such as qSIListView.

    NOTE: The IWebPartRow implementation is labeled with Send Row To in the web app Connection menu. This interface cannot be connected with the obsolete IRowConsumer or IFilterConsumer implementation. Do not connect this new interface with the old interface that is marked obsolete.

- IWebPartRow interface, which enables the selector to consume a row from another web app that implements IWebPartRow interface. The value from the consumed row can be used in the operator for a certain operation in the Actions property.

NOTE: The IWebPartRow consumer implementation is labeled with Get Row From in the web app Connection menu. This interface cannot be connected with the obsolete IFilterProvider or IRowProvider implementation. Do not connect this new interface with the old interface that is marked obsolete.

qSISelector Pages

You can configure this web app through its pages that are accessible through ezEdit. qSISelector contains the following pages:

- Content Page
- Behavior Page
- Appearance Page
- Advanced Page

Content Page

The Content page allows you to enter the content for your web app. It contains the following:

- Primary Content
- Filtering
- Sorting
- Selection

Primary Content

The Primary Content page is default category. You need to configure one or more elements in this page to get started using this web app.

Primary Content contains the following:

Table 1. Primary Content

Element	Description
Title	Allows you to enter a title for the web app.
Catalog	See Catalog on page 366.
Data Member	Allows you to define the index of the data table that contains the data to be displayed. This is useful when the operation that retrieves the data from external system returns multiple data tables and those tables do not have any meaningful name. If the data table has meaningful name, you can refer to it by using the Data Member property. If neither the Data Member or the Data Index property is specified, the first data table in the data set is used.
Data Index	Allows you to define the name of the data table that contains the data to be displayed. This is useful when the operation that retrieves the data from external system returns multiple data tables. If the data table does not have any meaningful name, use the Data Index property.
Primary Key Field Name	Allows you to define the field name in the returned data table that is used as the primary key. The primary key field must have a unique value for every row in the data table. The qSISelector will use the value in the primary key field to differentiate one row in the data table from another.

Table 1. Primary Content

Element	Description
Display Field Name	Allows to enter the name of the field that you want to display in the selector.If you want to display information from multiple fields, use the Display Format properties. The Display Field Name property is ignored if the Display Format property is defined.
Display Format	Allows you to define the format of the items that are displayed in the selector. You can use field replacement expression (<%field name %>) to refer to a field name.
Display Fields	Allows you to define the fields that are displayed in the drop-down menu of the web part. If defined, the choices in the drop-down menu are displayed in a grid. This property is an XML string in this format: <Fields> <Field Name="fieldName" Width="width" /> <Field Name="fieldName" Width="width" /> </Fields> The <Fields> element may contain one or more <Field> elements. • Name - The name of the field. The field name is case-sensitive. • Width - The display width of the field. The value can be in pixel (for example: 200px) or percent (for example: 30%).
Eliminate Duplicate Values	Allows you to define whether or not you want to eliminate duplicate values in the drop-down menu. This is useful in case you want to use the selector as a filter to another Web app.

Catalog

This property defines the entity and the operations related to the entity. This property is an XML string in this format:

> **NOTE:** If you are using a Salesforce system, the parameters that are available depend on the method selected. See the System Integration Developer Guide for the methods and parameters.

The Catalog section contains one or more entities. An entity identifies which system and service you have defined in the Configuration Editor. An entity contains one or more operations that can be executed on the entity, and consists of the following attributes:

Table 2. Catalog

Element	Description
Advanced Mode	Turn on if you want to edit Catalog in XML format. <Catalog> <Entity Name="entityName" System="systemName" Service="serviceName" Default="true/false" SetSessionName="sessionName" ResetSessionNames="sessionName"> <Properties> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> <Property Name="propertyName" Type="typeName" Value="propertyValue" /> </Properties> <Operation Name="operationName" Method="methodName" Default="True/False" > <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> <Parameter Source="sourceType" SessionName="sessionName" SourceName="sourceName" Type="parameterType" Name="parameterName" Usage="usageType" Value="value" /> </Operation> </Entity> <Entity>...</Entity> </Catalog>
System	Allows you to specify the system name that is defined in the System Integration configuration file. If the system name does not exist in the System Integration configuration file, you will get an error.
Service	Allows you to specify the service name that is defined in the System Integration configuration file. The service name that you specify here must belong to system that you specify in the System attribute. If the service name does not exist in the System Integration configuration file, you will get an error.
Name	Allows you to specify the name of the entity which must be unique within this Catalog. The name does not have to match with any name in your external system. However, it is recommended that you use a descriptive name for your entity.
Set Session Name	Allows you to enter name of the session variable where the edited or newly created item is stored when it is saved, or the item that is being displayed or edited is stored when it is loaded.
Reset Session Names	Allows you to reset (set to NULL) the value of the session variable whose name is specified in this attribute. Specify multiple names by separating them with commas.
Default	Allows you to define this entity as the default for the list form. If this element is not specified, the first entity that is listed in the catalog becomes the default entity. The default operation of the default entity is the operation that is used to retrieve the data when the list form is loaded for the first time in edit or display mode.

Operations

An operation contains the following properties.

Table 3. Operations

Element	Description
Name	Allows you to define the name of the operation. This name does not have to match with any name in your external system.
Method	There are three supported types: • TableDirect — select this type to return all the data in a table. Specify the schema and table name in the Method field below. • Stored Procedure — select this type to use a stored procedure to update or return data. Specify the schema and stored procedure in the Method field below. Once a stored procedure is selected, the Editor updates with the parameters that are defined for the stored procedure. It is recommended that you do not add or remove these parameters or change the "Name", "Source", or "Usage" fields. • Text — select this type to use free form PL/SQL string to query or update the database. If your SQL string requires parameters, you will need to add them manually by clicking the Add Parameter button. **NOTE:** This attribute is only applicable for Oracle systems.
Method	Allows you to set the real name of the operation in your external system. For example, it may refer to the name of a web service method. Or it may refer to the name of a stored procedure in your SQL Server database.
Default	Allows you to select this operation as the default for the entity. The default operation is the first operation that is called to retrieve the entity to be displayed. If this attribute is not specified, the first operation listed in the entity becomes the default operation.

Operation Parameters

You can click Edit to add parameters to your operation. You can define the following:

Table 4. Operation Parameters

Parameter	Description
Name	Allows you to set the parameter name that is used when calling the operation in your external system.
Source	Allows you to define the source of this parameter, which can be one of the following: • Default Value — the default value of the parameter type or default instance of the parameter type. You must specify a type and usage (the direction for the parameter). For example, if the parameter type is Boolean, the Default Value for the parameter is false; if the parameter type is String, the default value is null. If a simple class or structure is involved, an instance of the object is created and used as the parameter value. • NullValue — the value of the parameter is null. You must specify a type and usage. • FixedValue — the value of the parameter. You must specify a value, type, and usage. • HttpRequest — the value of the parameter is retrieved from the HTTP parameters in the page URL. You must specify a Source Name (the source name where the value is retrieved) and usage. As an example, say the current page URL is http://mysite.com/default.aspx?ProductType=Hardware. If the SourceName attribute is ProductType, the value of the ProductType HTTP parameter, which is Hardware, is used as the value of the parameter. • Input — you can link a field on the form to an operation parameter. You must specify a Source Name, type, and usage. You can also use this source type to retrieve the current user information as the value of the parameter. You can retrieve the following information: CurrentUserName - display name of the current user CurrentLoginName - login name of the current user CurrentUserID - ID of the current user CurreUserEmail - email address of the current user • RowFromAnotherWebApp— the value of the parameter that is retrieved from the row that is consumed from another web app. You must specify a Source Name and type. • Session — the value of the parameter that is retrieved from the row that is stored in the session. You specify Session Name (define the name of the session where the row of information is retrieved), Source Name, type, and usage. • ComplexType — the value of the parameter is an object based on the Type attribute and Member definition inside the Parameter. Array and nested complex types are supported. You must specify type and usage. • Array — the value of the parameter is an array of values. You must specify type and usage. • XML — the value of the parameter that is dynamically built when the condition is execute at runtime. You must specify type and usage. **NOTE:** For sources related to Salesforce, see the System Integration Developer Guide.

Properties

The Catalog section contains the following properties:

Element	Description
Name	Allows you to specify the name of the property. Refer to the documentation for the DAO Provider to your external system will tell you the name of the property that you must define.
Type	Allows you to specify type of value that is specified in the Value attribute. Example: System.String.
Value	Allows you to specify the value of the property.

Filtering

The Filtering page allows you to use Complex Filters to define static filter for the data.

The Filtering page contains the following:

Table 5. Filtering

Element	Description
Complex Filter	Allows you to use the Complex Filter expression to define a static filter for the data. The complex filter is applied to the data after the CAML Filter is applied. **NOTE:** The Complex Filter is provided here only for backward compatibility reason. In the past, Complex filter was used to support date functions. For more information, see Complex Filters on page 21.

Sorting

The Sorting page allows you to define the sorting criteria.

The Sorting page contains the following elements:

Table 6. Sorting/Paging

Element	Description
Sort Fields	Allows you to enter a value that is used to sort the entries. This property accepts a single field name.
Sort in Ascending Order	Allows you to sort the entries in the ascending order. Deselect this check box if you want the entries in descending order. This field is ignored if the Sort Field property is not defined.

Selection

The Selection page allows you to configure what do with empty selections. This page contains the following:

Table 7. Selection

Element	Description
Show Empty Selection	Allows you to display the value of Empty Selection Item Name property as the first item. You should check this property if you want the user to be able to select nothing. Selecting nothing returns the entire unfiltered list. Another case is when the qSelector acts as a filter to another web app and you want the ability to pass an empty filter. This means the other web app will display all its data unfiltered.allow customer to select the behavior of the empty selection. And this option is only valid for the "Get Filter From" connection type.
Turn Off Filtering When Empty Selection is Chosen	Allows you to turn filtering on or off if Show Empty Selection is selected. This option is only valid for the "Get Filter From" connection type.
Empty Selection Item Name	Allows you to display a specified value as the first item in the Selector when the Show Empty Selection is checked. The default is - Select One -.
Empty Drop-Down Item Name	Allows you to display specified text that is displayed in the drop-down menu when it contains no list items. The default is <Empty>.
Refresh Page When Selection Changed	Allows you to determine whether the page should be refreshed when you select another item in the selector. By default, the value is false, which means that the page is only posted back.

Behavior Page

The Behavior page allows you to configure behaviors, such as adding buttons or menus, so the user can perform operations when using the web app.

The Behavior page contains the following:

- Views

Views

The Views page contains the following:

Table 8. Views

Element	Description
Display Messages from DAO Provider	Allows you to display messages, such as informational messages or warnings at the top of a web app. For more information on DAO providers, see System Integration Developer Guide.
Custom Message Display	Allows you to specify a custom message based on certain conditions. We currently do not support mapping for the messages that the Display Messages From DAO Provider property enables. Turn on Advanced Mode if you want to edit Custom Message Display in XML format. CustomMessageDisplay contains the following properties: • Display When — allows you to set the conditions to display a custom error message. When defining the Display When condition, the following operators are supported: Eq (Equal) Neq (Not Equal) Null, Is Not Null, Begins With, Contains and Matches (for regular expression). • Custom Message — The error message that you want displayed when the Display When condition is set. If a Display When condition is set during runtime but a custom message is not specified, the original message is displayed. If you want to hide the original message, use a blank string or any html code that renders no visible cues, such as , for the CustomMessage attribute. When multiple Custom Message elements are defined for this property, the first Custom Message, whose Display When condition is set, is used. If no conditions are met, an error message from the selected external system is displayed.

Appearance Page

The Appearance page allows you to set the overall look and feel of the web app. This page contains the following:

- Ribbon
- Persistent Selector
- Layout
- Other

Ribbon

The Ribbon page allows you to set the display name of the Ribbon.

Table 9. Ribbon

Element	Description
SharePoint Ribbon Tab Name	Allows you to edit the display name of the Ribbon tab.

Persistent Selector

The Selector page allows you to configure the appearance of the selector. It contains the following:

Table 10. Toolbar

Element	Description
Skin Name	Allows you to select the skin name for the grid in the listview. If you have a custom skin, you can add it to the following folder for SharePoint 2010:C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins or for SharePoint 2013: C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\QuestSoftware\Telerik\Q32013SP1\Skins. When creating a custom skin, you can refer to the Sample Skin folder in the install directory.
Persistent Selector Width	Allows you to specify the width of the input part for the selector.
Drop Down Width	Allows you to specify the width of the drop-down menu for the selector in pixels. If you specify the width for each field in the Display Fields property in pixels, the value of this property is usually the total width of all fields.
Drop Down Height	Allows you to specify the height of the drop-down menu for the selector.

Layout

The Layout page allows you to set the overall layout of the web app. It contains the following:

Table 11. Layout

Element	Description
Width	Allows you to set the web app to a fixed width
Height	Allows you to set the web app to a fixed height
Chrome State	Allows you to select if the web app can be minimized or not when you open the web app. If Minimized is selected, then only the Title Bar displays.
Chrome Type	Allows you to select the kind of border to display around the web app.
Hidden	Select this check box if you want the web app hidden
Direction	Allows you to set how the text in the web app displays depending on the language, either from Left to Right or Right to Left

Other

The Other page allows you to set the appearance of other elements in the web app. It contains the following:

Table 12. Other

Element	Description
Allow Minimize	Select this check box if you want the web app minimized
Allow Close	Select this check box if you want the web app removed from the page
Allow Hide	Select this check box if you want the web app hidden

Table 12. Other

Element	Description
Allow Zone Change	Select this check box if you want the web app moved to a different zone
Allow Connections	Select this check box if you want the web app to participate in connections to other web apps
Allow Editing in Personal View	Select this check box if you want the web app modified in a personal view
Export Mode	Allows you to select the level of data that can be exported for this web app
Title URL	Allows you to add the title of a URL as extra information about the web app
Description	Allows you to enter a description of the web app that is displayed as a Tooltip when you hover your mouse over the web app title or icon.
Help URL	Allows you to enter the location of a file containing Help information about the web app.
Help Mode	Allows you to specify how a browser displays Help content for the web app, either in a separate window which you must close before returning to the Web Page (Mode), in a separate window that you do not need to close before returning to the Web Page (Modeless), or in the current browser window (Navigate)
Catalog Icon Image URL	Allows you to specify the location of a file containing an image to be used as the web app icon in the Web app List. The image size must be 16 by 16 pixels.
Title Icon Image URL	Allows you to specify the location of a file containing an image to be used in the web app title bar. The image size must be 16 by 16 pixels.
Import Error Message	Allows you to specify a message that appears if there is a problem importing the web app

Advanced Page

The Advanced page allows you to set advanced features of the web app, such as the following:

- Security
- Resources

Security

The Security page allows you to set which users are allowed to view the web app. It contains the following:

Table 13. Security

Element	Description
Target Audiences	Allows you to have the Web app to appear only to people who are members of a particular group or audience. An audience can be identified by using a SharePoint group, a distribution list, a security group, or a global audience.

Resources

The Resources page allows you to enable Localization in the web app using resource lists.

Localization

Localization contains the following elements.

NOTE: While this feature is still available to use, we recommend using ezLocalizer. For more information, see ezLocalizer on page 386.

Table 14. Localization

Element	Description
Resource List	Allows you to support a multi-lingual site. In a multi-lingual site, there are some settings, such as the web app, whose value can change depending on the current culture setting. The Resource List property defines the list that contains the string values for different cultures. The resource list must contain 3 columns: • Resource ID — This field contains the identifier to refer to the string. You can have multiple strings with the same Resource ID as long as their Culture value is different. • Culture — This field contains the culture for the string. For the default culture, leave the Culture field blank. • Value — This field contains the value for the string. The Lists element can contain only one List element. The following are the attributes for the List element: • SiteUrl — The URL to the site that contains the resource list. The URL can be absolute (http://...) or relative to the current page URL. This attribute is mandatory. • ListName — The name of the resource List. The list name is case sensitive.
Title Resource ID	Allows you to support a multi-lingual site. The property defines the identifier of the string in the Resource List that is used as the text of the web app. The Resource ID and the current cultural setting (identified with the Culture HTTP parameter) are used to retrieve the string in the Resource List. If the string with the given identifier and culture is not found, the default is used.

A

Custom Action Help

- Overview
- Custom Action

Overview

The Custom Action capability enables you to write a custom code that can be called from qListView, qListForm, qSIListView or qSIListForm. In your custom code, you can:

- write a complex custom validation and abort the action if the data is invalid.
- copy the item to another list or library before the item is saved in a qListForm.
- initialize one or more fields in the qListForm when the list form is initialized. Refer to the Form Initialization Actions property of the qListForm and qSIListForm on how to call this kind of custom action.

Custom Action

To write your own custom action, ensure:

- A Class Library project is created using Microsoft Visual Studio
- Microsoft SharePoint Server is installed and running properly
- QuickApps for SharePoint is installed and running properly in your SharePoint environment
- You have a strong name key file to sign your assembly

Your custom action classes must implement either the WA.Core.ICustomAction interface or the WA.Core.ICustomActionEx interface.

ICustomActionEx Interface

The ICustomActionEx interface is located in WA.Core.DLL that is installed in the Global Assembly Cache (GAC) when you install the QuickApps for SharePoint.

The following is the signature of the WA.Core.ICustomActionEx interface:

```
public interface ICustomActionEx
{
    ActionResult Perform(CustomActionContext context, CustomActionCancelEventArgs evt);
}
```

Parameters

The following table lists the parameters of the Perform method.

TIP: Any exception thrown within the Perform method is caught by the web app. Afterwards, the web app will set the event's Cancel property to true and set its error message with the exception's Message property.

Table 1. Perform method parameters

Parameter	Description
CustomActionContext	Allows you to: • Access the HTTPContext object using HTTPContext property. The HTTPContext object allows you to access the Request and Response objects to do various things. • Access the collection of items where this action is to be performed. This collection contains Microsoft.SharePoint.PListItem objects (for qListView and qListForm) or System.Data.DataRow objects (for qSIListView, qSIListForm and qSIChartView). The following statements are true for the second parameters: This parameter is never null and it will contain zero or more SPListItem or DataRow objects. When your custom code is called from the qListForm's toolbar button or qListView's context menu item, the collection will contain one SPListItem object, which is the item that is being right-clicked in the listview or displayed in the list form. When your custom code is called from the qListView's toolbar button, it may contain zero or more SPListItem objects, which are the items that are selected in the listview. When your custom code is called from the qSIListForm's toolbar button or qSIListView's context menu item, the collection will contain one DataRow object, which is the row that is being right-clicked in the listview or displayed in the list form. When your custom code is called from the qSIListView's toolbar button, it may contain zero or more DataRow objects, which are the rows that are selected in the listview. When your custom code is called from the qSIChartView's toolbar button, it contains all the rows that are being used in the chart view
CustomActionCancelEventArgs	Is used to tell the web app about the outcome of the action. The Perform method may return an object of ActionResult class. This ActionResult is stored by the framework and can be accessed by another action that is executed after this action. If your action does not need to return anything, you can return null. It allows you to: • Cancel the operation by setting the Cancel property to true. • Set a custom error message by setting the Message property. • Access the web app that invokes this action by using the Source property. You may analyze the property of the web app to do different things in your code.

Example

The following is a simple implementation that demonstrates how to retrieve SPListItem object(s) from the passed in parameter, process the parameters, and how to notify the web apps about the outcome of the custom action.

Below is an example of a custom action class. This class verifies that if this item has high priority, it must be assigned to somebody. Otherwise, it will cancel the operation.

```
using System;
```

```
using System.Web;
using System.Collections;
using System.Collections.Generic;
using System.Text;
using System.ComponentModel;
using Microsoft.SharePoint;
using WA.Core;

namespace MyCompany.DevStudio
{
   /// <summary>
   /// A sample custom action that you can use to validate a Task in the Tasks list.
///
   /// In this case, the sample custom action ensures that a high priority task must be assigned
to somebody.
   /// If not, the sample custom action will cancel the action and generates an error message.
   /// </summary>
   public class SampleCustomActionEx : ICustomActionEx
   {
      /// <summary>
      /// The Perform method is called by the webapp when the action item (such
      /// as toolbar button or context menu item) is clicked.
      /// </summary>
      /// <param name="context">The CustomActionContext object that contains the HTTP Request
and HTTP Context.
      /// If the custom action is invoked from an SI Web app, it will also contain a collection of DataRows
      /// where the action is performed. If the custom action is invoked from a non-SI Web app, it will
contain
      /// a collection of SPListItem object.</param>
      /// <param name="evt">The event argument that can be used to cancel the action and
      /// to carry the error message back to the Web app.</param>
      /// <returns></returns>
      public ActionResult Perform(CustomActionContext context, CustomActionCancelEventArgs
      evt) {
         ActionResult actionResult = new ActionResult();
         if (context.Items == null || context.Items.Count == 0)
         {
            evt.Cancel = true;
            // you may construct a simple message for popup message or html text if message is shown as
inline
            evt.Message = "There is no item to validate.";
```

```
    return actionResult;
}
// This sample custom action is meant to be used by a qListView or qListForm
// that points to a Task list. Therefore, the items contains SPListItem
objects. SPListItem item = null;
IEnumerator enumerator = context.Items.GetEnumerator();
while (enumerator.MoveNext())
{
    item = enumerator.Current as
    SPListItem; if (item != null)
    {
        if (item["Priority"] != null)
       {
            string priority = item["Priority"].ToString();
            if ("(1) High".Equals(priority))
           {
                if (item["Assigned To"] == null ||
                string.IsNullOrEmpty(item["Assigned To"].ToString()))
               {
                    evt.Cancel = true;
                    evt.Message = "A high priority task must be assigned to a user";
                }
            }
        }
    }
}
```

/* The following code shows you how you can store the result from this action to be used by another action

* in the chain of actions of the ActionItem. The lines are commented out because they are not really used

* in this action. It is for illustration purposes only.

*

* You have two ways to store the data. First, you can store the data as RawData in the actionResult. Here is an example:

```
actionResult.RawData = someData;
```

* You can also store the data as key-value pairs in the OutParameters of the actionResult. Here is an example:

*

```
actionResult.OutParameters["Name"] = someData;
*/
```

/* The following code shows you how you can use the result from another action. The lines are

```
            * commented out because they are not really used in this action. It is for illustration purpose
only.
            *
            * You can access the RawData that comes from another action the following name.
            * ActionName - this is the name of the action that stores the result.
            * RawData - use this specifier to get the RawData
            *
            object rawData = context.GetActionResult("ActionName.RawData");

            * You can also access the key-value pairs in the OutParameters by using the following specifier:
            * ActionName - this is the name of the action that stores the result.
            * OutParameter - use this specifier to get to the OutParameters key-value pairs
            * Name - the key for the value in the OutParameters key-value pairs
            object val =
            context.GetActionResult("ActionName.OutParameter.Name"); */
            return actionResult;
        }
    }
}
```

Here is another example of a custom action class. This custom action class can be used to initialize a

```
qListForm. using System;
using System.Web;
using System.Collections;
using System.Collections.Generic;
using System.Text;
using System.ComponentModel;
using Microsoft.SharePoint;
using Microsoft.SharePoint.WebControls;
using Microsoft.SharePoint.Utilities;
using Microsoft.SharePoint.Administration;
using Microsoft.SharePoint.WebPartPages;
using System.IO;
using System.Net.Mail;
using System.Security.Principal;
using System.Runtime.InteropServices;
using System.Threading;
using WA.Core;

namespace MyCompany.DevStudio
{
```

```
    /// <summary>
    /// A sample custom action that you can use to validate a Task in the Tasks list.
///
    /// In this case, the sample custom action ensures that a high priority task must be assigned
to somebody.
    /// If not, the sample custom action will cancel the action and generates an error message.
    /// </summary>
    public class InitializeFormAction : ICustomActionEx
    {
        /// <summary>
        /// The Perform method is called by the webapp when the fields in the list form are initialized.
        /// </summary>
        /// <param name="context">The CustomActionContext object that contains the HTTP Request
and HTTP Context.
        /// If the custom action is invoked from an qSIListForm, it will also contain a collection
of Hashtable
        /// where the action is performed. If the custom action is invoked from a qListForm, it will contain
        /// a collection of SPListItem object.</param>
        /// <param name="evt">The event argument that can be used to cancel the action and
        /// to carry the error message back to the Web app.</param>
        /// <returns></returns>
        public ActionResult Perform(CustomActionContext context, CustomActionCancelEventArgs
        evt) {
            ActionResult actionResult = new ActionResult();

            if (context.Items == null || context.Items.Count == 0)
            {
                return actionResult;
            }

            // This sample custom action is meant to be used by a qListForm
            // that points to a Task list. Therefore, the items contains SPListItem
            objects. SPListItem item = null;
            IEnumerator enumerator = context.Items.GetEnumerator();
            while (enumerator.MoveNext())
            {
                item = enumerator.Current as
                SPListItem; if (item != null)
                {
                    // Initialize the title with a
                    value item["Title"] = "New Task";
```

```
            }
        }
        return actionResult;
    }
}
```

NOTE: Microsoft Visual Studio.Net 2010/2012 project must contain references to the following two DLLs:

- C:\Windows\Microsoft.NET\assembly\GAC_MSIL\Microsoft.SharePoint\v4.0_15.0.0.0__71e9bce111e9429c\Microsoft.SharePoint.dll
- C:\Windows\Microsoft.NET\assembly\GAC_MSIL\WA.Core\v4.0_4.0.0.0__2b4b09f1c57c8f0b\WA.Core. dll

ICustomAction Interface (Deprecated)

This interface is deprecated starting from version 5.0. Use the ICustomActionEx Interface on page 375 instead.

The ICustomAction interface is located in WA.Core.DLL that is installed in the Global Assembly Cache (GAC) when you install QuickApps for SharePoint.

The following is the signature of the WA.Core.ICustomAction interface:

```
public interface ICustomAction
{
    void Perform(HttpContext context,
    ICollection listItems,
    CustomActionCancelEventArgs evt);
}
```

Parameters

The following table lists the parameters of the Perform method.

TIP: Any exception thrown from the custom action classes is caught by the web app. Afterwards, the web app will set the event's Cancel property to true and set its error message with the exception's Message property.

Table 2. Perform method parameters

Parameter	Description
HttpContext	Allows you to access the Request and Response object
a collection of Microsoft.SharePoint.PListItem objects (for qListView and qListForm) or a collection of System.Data.DataRow objects (for qSIListView, qSIListForm and qSIChartView)	Allows the following: • This parameter is never null and it will contain zero or more SPListItem or DataRow objects. • When your custom code is called from the qListForm's toolbar button or qListView's context menu item, the collection will contain one SPListItem object, which is the item that is being right-clicked in the listview or displayed in the list form. • When your custom code is called from the qListView's toolbar button, it may contain zero or more SPListItem objects, which are the items that are selected in the listview. • When your custom code is called from the qSIListForm's toolbar button or qSIListView's context menu item, the collection will contain one DataRow object, which is the row that is being right-clicked in the listview or displayed in the list form. • When your custom code is called from the qSIListView's toolbar button, it may contain zero or more DataRow objects, which are the rows that are selected in the listview. • When your custom code is called from the qSIChartView's toolbar button, it contains all the rows that are being used in the chart view.
CustomActionCancelEventArgs	Is used to tell the web app about the outcome of the action. This allows you to: • Cancel the operation • Set a custom error message

Example

The following is a simple implementation that demonstrates how to retrieve SPListItem object(s) from the passed in parameter, process the parameters, and how to notify the web apps about the outcome of the custom action.

Below is an example of a custom action class. This class verifies that if this item has high priority, it must be assigned to somebody. Otherwise, it will cancel the operation.

```
using System;
using System.Web;
using System.Collections;
using System.Collections.Generic;
using System.Text;
using System.ComponentModel;
using Microsoft.SharePoint;
using WA.Core;

namespace CustomActionSample
{
    public class MyCustomAction : ICustomAction
```

```
{
    public void Perform(HttpContext context, ICollection listItems, CustomActionCancelEventArgs
    evt) {
        if (listItems.Count == 0)
        {
          evt.Cancel = true;
          evt.Message = "There is no item to validate";
          return;
        }
        SPListItem item = null;
        IEnumerator enumerator = listItems.GetEnumerator();
        while (enumerator.MoveNext())
        {
           item = enumerator.Current as SPListItem;
           if (item != null)
           {
              if (item["Priority"] != null)
             {
                string priority = item["Priority"].ToString();
                if ("(1) High".Equals(priority))
               {
                     if (item["Assigned To"] == null ||
                                        string.IsNullOrEmpty(item["Assigned To"].ToString()))
                       }

                       evt.Cancel = true;
                       evt.Message = "A high priority task must be assigned to a user";
                   }
                }
              }
           }
        }
    }
}
```

NOTE: Microsoft Visual Studio.Net 2010/2012 project must contain references to the following two dlls:

- C:\Windows\Microsoft.NET\assembly\GAC_MSIL\Microsoft.SharePoint\v4.0_15.0.0.0__71e9bce111e9429c\Microsoft.SharePoint.dll
- C:\Windows\Microsoft.NET\assembly\GAC_MSIL\WA.Core\v4.0_4.0.0.0__2b4b09f1c57c8f0b\WA.Core. dll

Debugging

In order to debug the code, generate the debug version of the DLL and copy the DLL and PDB file into the bin folder under the root folder of your SharePoint application. If you cannot find the bin folder, you can create one. Sign your assembly with a strong name key file.

NOTE: You can set the output folder of your project to the bin folder of your SharePoint application. Therefore, the DLL and PDB files are automatically updated every time you compile your application.

Physical Path

To find the physical path of the root folder of your SharePoint application

1. Select **Start | Control Panel | Administrative Tools | Internet Information Services (IIS) Manager**.
2. Expand the node with your computer name.
3. Expand the **Web Sites** folder.
4. Find the node that represents your site. The SharePoint site should contain _layouts, _vti_bin and _wpresources underneath it.
5. Right-click the node and select **Properties**.
6. Select **Home Directory** tab.

   The value in the Local path tells you the physical path of your root folder.

Trust Level

Once you generate the debug version, you should change the trust level for your web application to Full while debugging the custom action. The trust level is specified in the web.config. Find the trust element in your web.config and change the level to Full.

```
<trust level="Full" originUrl="" />
```

Debugging the Code

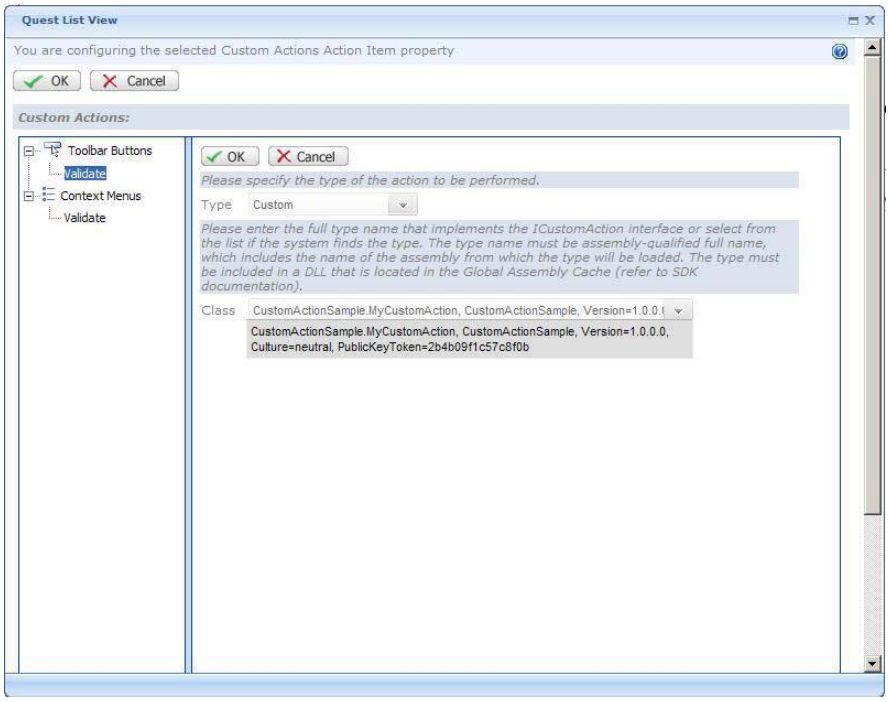
To debug your code

1. Open the SharePoint page that contains the listview or list form web apps that contains the custom action.
2. Open your project's solution using Visual Studio.
3. Select **Debug | Attach to Process**.
4. Select w3wp.exe in the process list. If w3wp.exe is not listed, make sure that you check Show processes in all sessions. You may see more than one w3wp.exe listed. If you do, select the one with your user name.
5. Click **Attach**.
6. Set some breakpoints in your custom action code.
7. Invoke your custom action by clicking the custom toolbar button or the custom context menu that you configure in the listview or the list form web app.

Using the Custom Action Class

When you specify the class name in the action item with type Custom, you must use a fully qualified class name. The Custom Action Editor will automatically show you all the custom action classes that are located in the bin folder of your SharePoint application.

Figure 1. Custom Action Editor



Deploying Custom Action Class

When it is ready to deploy the solution, build your custom action project in release mode. Sign the assembly with a strong name key file. This ensures the assembly created can be deployed into Global Assembly Cache (GAC).You can deploy your assembly into the GAC by using the gacutil.exe that comes with the .NET Framework SDK. Here is the command: gacutil /i <DLLName>.

Once the assembly is dropped into the GAC, your class is ready to use.

B

ezLocalizer

ezLocalizer allows you to translate your Web apps to various languages.

You can perform the following functions:

- Creating a New Project
- Opening an Existing Project
- Finding Values in a Project

Creating a New Project

To create a new project

1. Select **Start | All Programs | AgreeYa | QuickApps for SharePoint ezLocalizer | ezLocalizer.**
2. Select **File | New**.
3. Select where you want to store your project and what version of Web apps you are translating. Click **OK**. The selected version of Web apps resource file opens.
4. Click the **Select Languages** button.
5. Select one or more languages from the Available Languages column, move them to the Selected Languages column, and click **OK**.

   The selected languages will be the target languages to which your resource files are translated.
6. Enter the translated invariant value in the Value in <Language> column.
7. Click **Save** to save your resource project.

   The project will be saved in the folder you have chosen in step 3.
8. Click **Compile** to generate the .dll files for the selected language.

   If one or more values are not translated, an error message appears asking if you want to continue. If you click Yes, you can keep the values blank or overwrite the blank values with existing invariant values. You can choose not to create satellite assemblies if you are not finished translating the resource files or overwriting existing assemblies you have previously compiled.

   For more information on satellite assemblies, see http://msdn.microsoft.com/en-us/library/sb6a8618(v=vs.90).aspx.

9 If you are using:

Sharepoint 2010	Sharepoint 2013

• Copy the assemblies to the GAC of your Web Front-end servers where you have QuickApps for SharePoint 2010 installed and activated.
NOTE: To copy your assemblies to GAC, drag your DLLs into the C:\Windows\Assembly folder. To uninstall the assemblies, right-click an assembly, and select Uninstall.
	1 Install GACUTIL. Download it from http://www.microsoft.com/en-us/download/details.aspx?id=8279.
	2 From the command prompt, run:
	`GACUTIL /i <FULL PATH>WA.Resources.resources.dll`
	`GACUTIL /i <FULL PATH>/Quest.Resources.resources.dll`
	NOTE: If the DLLs are installed correctly, they are located at %Windows%\Microsoft.Net\assembly\GAC_MSIL.
	3 Copy gacutil.exe and gacutil.exe.config and run the commands to every Web Front-end server that has QuickApps for SharePoint 2013 installed and activated.

10 Restart IIS.

NOTE: You must restart IIS to see the translated values.

Opening an Existing Project

To open an existing project

1 Select **Start | All Programs | AgreeYa | QuickApps for SharePoint ezLocalizer | ezLocalizer.**

2 Select **File | Open**, and select an existing project.

3 Make any necessary changes.

4 Click **Save** to save your resource project.

5 Click **Compile** to generate the .dll files for the selected language.

NOTE: For more information, see Creating a New Project on page 386.

Finding Values in a Project

You can find a name, invariant value, or translated value in a single category or the entire project.

To find a name, invariant value, or translated value

1 Select **Actions | Find.**

The Find tab opens.

2 Select a category.

3 Enter a name, invariant value, or translated value to find.

4 Click **Find** to find the name or value in a single category.

OR

Click **Find All** to find the name or value in the entire project.

C

My First App

- Overview
- Using My First App

Overview

My First App allows you to create a basic SharePoint application. You can add, edit, and view items in a SharePoint list, and then, if desired, plot the data from the list in a chart.

Before you begin, ensure that the SharePoint site contains the list you want to use. If a list does not already exist, create one.

NOTE: You need to be a site owner in order to use My First App.

Using My First App

To use My First App

1. Ensure the My First App feature is activated on your site collection.
2. From any site in your site collection where you want to build your first app, click **Site Settings**.
3. Click **My First App**.
4. Click **Start**.
5. Pick a SharePoint list, and click **Next**.
6. Select a chart type, enter a chart name, and select fields for X-axis and Y-axis, and a function to compile the Y-axis data.

   NOTE: If you do not want to build a chart, keep the default "No Chart".
7. Click **Next**.
8. Select a target location and enter a page name for your app.
9. Click **Build**.

   When the app is completed, you can either go to your app right away or build another

   app. If you want to configure the list and chart, select ezEdit from the Ribbon tabs.

   For information on qChartView, see qChartView on page 47. For information on qListView, see qListView on page 184.

D

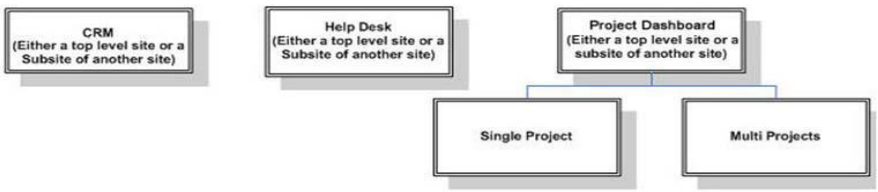
Application Templates

- Installing the Application Templates
- Adding the CRM template
- Adding the Help Desk Template
- Adding the Project Dashboard Template
- Adding the Project Workspace

Installing the Application Templates

QuickApps for SharePoint comes with several application templates. You can use these application templates as a turn-key solution, extend it to your own need, or as an example for your own application.

Figure 1. Structure of the application templates:



The Single Project and Multi Projects sites must be added underneath the Project Dashboard site. Otherwise, you will see an error in the Panel Menu citing that the list for the menu cannot be found. This is because the lists for the Single Project's and Multi Project's panel menu are located in the Project Dashboard site.

The Application Site Templates in SharePoint are delivered as SharePoint solution packages: AgreeYa CRM Site.wsp, AgreeYa Help Desk Site.wsp, AgreeYa Multi Project Site.wsp, AgreeYa Project Dashboard Site.wsp, and AgreeYa Single Project Site.wsp.

To install the application templates

1. Copy the solution packages (.wsp files) to a local folder.
2. Click the Application Templates link on the QuickApps for SharePoint autorun screen of the installer.
3. Open the Solutions Gallery in SharePoint.
4. On the SharePoint Ribbon Solutions tab, click **Upload Solution**. Browse and upload the Site Application Template.
5. Click **Activate** to activate it if you want the Site Template to appear in the New Site dialog box later.

Adding the CRM template

The CRM can be a top-level site or a subsite of another site.

The CRM application template can be used to manage customer data such as companies, contacts, tasks, conversation records, and sales funnel (sales opportunities).

To add the CRM template

1. Open Sites and workspaces in SharePoint.
2. Click **Create**.
3. Complete the site information and select the CRM Site template under the Custom tab.
4. Click **Create**.

   Next, you must configure the administrator group. The member of this group will see the Administration Pages panel in the panel menu.

To configure the administrator group

1. Open People and groups in SharePoint.
2. Click **New** to create Administrators group and assign members to this group.

   If you want to create announcements that are displayed in the Home page, login as a member of the Administrators group and select **Administration Pages | Application Setup** in the panel menu.

   Click the **New** button in the Companies listview in the Home page to create company records. When you click Save and View Details, the company record is saved and you will redirected to the Company Detail page where you can enter the Contacts, Tasks, Conversation Records and Sales Funnel (Sales Opportunities) for that company.

Adding the Help Desk Template

The Help Desk can be a top-level site or a subsite of another site.

The Help Desk application template can be used to manage Help Desk tickets and to look for help desk related information such as links, FAQs, and Knowledge Base Articles.

To add the Help Desk template

1. Open Sites and workspaces in SharePoint.
2. Click **Create** on the toolbar.
3. Complete the site information and select the Help Desk Site template under the Custom tab.
4. Click **Create**.

Next, you must configure the group for the help desk users.

To configure the group for help desk users

1. Open People and groups in SharePoint.
2. Create 4 new groups (3 new groups if you have already created an Administrators group) and assign members to these groups.
   - Administrators – The members of this group can see the Administration Pages panel in the panel menu.
   - Help Desk Users – This is the group for a regular user. Regular users can create a ticket and track their existing tickets. They can also lookup the resources in the site.
   - Help Desk Technicians – Help Desk Technician can do everything that the Help Desk User can do. Also, they can assign a ticket to themselves or other technician and working on the ticket.
   - Help Desk Supervisors – Help Desk Supervisor can do everything that the Help Desk Technician can do. Also, they can administer the list of help desk technician and add FAQ, and Knowledge Base articles.

If you do not log in as a member of Help Desk Supervisors, open another window and log in as a supervisor.

Select Supervisor | Administrative Page in the menu. At a minimum, you must fill in the Help Desk Technician information and the Supported Products. You can also create other information such as Announcements, Help Desk Links, FAQs, and Knowledge Base Articles in this page.

After the setup is done, anybody can start using the site. The first thing that the user can do is to create a new ticket by clicking the New button in the My New or Unassigned Tickets view in the home page. After a ticket is created, the owner of the ticket can keep track the life cycle of the ticket by clicking the Active Tickets, Resolved Tickets and Closed Tickets links in the panel menu.

Help Desk Technicians can login to the site and look for newly created tickets using the New or Unassigned Tickets page. The link to navigate to this page is available in the panel menu. Somebody must be a member of the Help Desk Technicians member to be able to see this menu. Help Desk Technicians can also see any tickets that are assigned to him/her, resolved by him/her or closed tickets that are resolved by him/her by clicking the appropriate links in the panel menu.

Any user can look for information such as FAQs, discussion board, Knowledge Base Articles, by clicking the links in the panel menu. Only a member of Help Desk Supervisors group can create FAQs, Knowledge Base Articles, by using the administrative page.

Adding the Project Dashboard Template

The Project Dashboard can be a top-level site or a subsite of another site.

The Project Dashboard, Single Project, and Multi Projects application templates can be used to manage different aspect of a project, such as Tasks, Issues, and documents.

To add the Project Dashboard template

1. Open Sites and workspaces in SharePoint.
2. Click **Create**.
3. Complete the site information and select the Project Dashboard Site template under the Custom tab.
4. Click **Create**.

   Next, you must configure the administrator group if you have not done so. The member of this group will see the Administration Pages panel in the panel menu.

To configure the administrator group

1. Open People and groups in SharePoint.
2. Create an Administrators group and assign members to this group.

   The Project Dashboard site itself does not contain any data. You must create one or more Single Project sites or Multi Project sites as subsites of the Project Dashboard site.

Adding the Project Workspace

The Project Workspace must be created under the Project Dashboard.

To add the project workspace

1. Open Sites and workspaces in SharePoint.
2. Click **Create** on the toolbar.
3. Complete the site information and select either the template Single Project Site or Multi Project Site under the Custom tab.

4 Click **Create**.

Login as a member of the Administrators group and select **Administration Pages | Application Setup** in the panel menu. Setup your projects, phases for your projects, and other information pertaining to the projects. For the Single Project site, you must create only one Project. You can create more than one projects in the Multi Project site.

After the project is setup, any user can login to the project site and start managing the Tasks, Issues and documents related to the project. In the Multi Project site, the user can switch between one project and another by selecting it in the selector that is located above the listview in each page. The selected project is memorized when the user navigates between pages enabling them to see the data only for the selected project.

The user can also go to the Project Dashboard site to see the aggregated information from all the subsites. For example, a manager can easily monitor the health of all the projects in the home page of the Project Dashboard site.

E

Sample Charts

- Single Series
- Multi-Series
- Scroll
- Stacked

Table 1. Sample charts

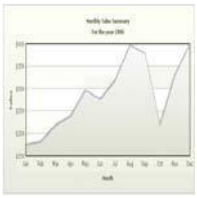
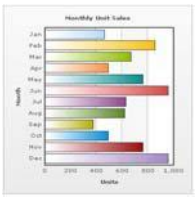
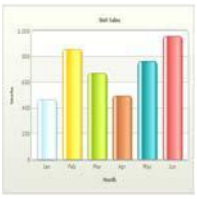
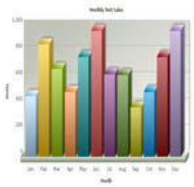
Chart Group	Chart Type	Example
Single Series	Area2D	
	Bar2D	
	Column2D	
	Column3D	

Table 1. Sample charts

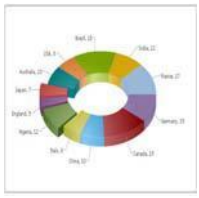
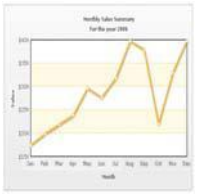
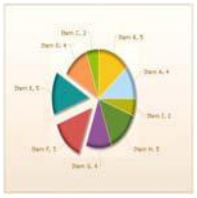
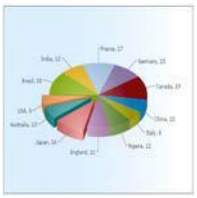
Chart Group	Chart Type	Example
	Doughnut2D	
	Doughnut3D	
	Line	
	Pie2D	
	Pie3D	

Table 1. Sample charts

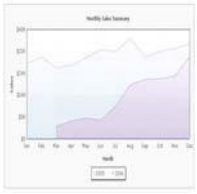
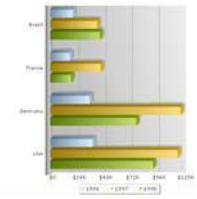
Chart Group	Chart Type	Example
Multi-Series	MultiSeriesArea	
	MultiSeriesBar2D	
	MultiSeriesBar3D	

Table 1. Sample charts

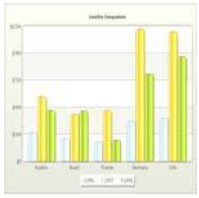
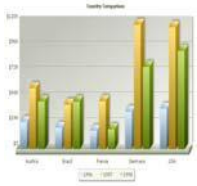
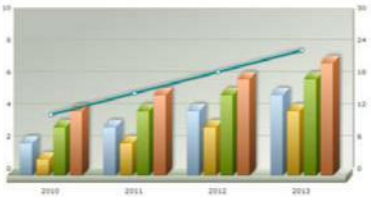
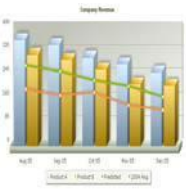
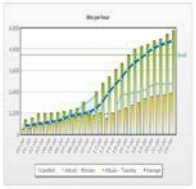
Chart Group	Chart Type	Example
	MultoSeriesColumn2D	
	MultiSeriesColumn3D	
	MultiSeriesColumn3DAnd LineDualYAxis	
	MultiSeriesColumnAndLine3D	
	MultiSeriesCombination2D	

Table 1. Sample charts

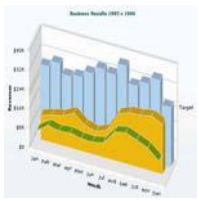
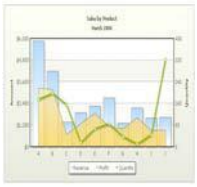
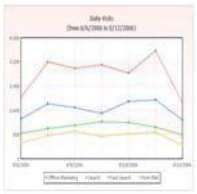
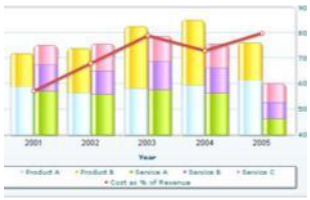
Chart Group	Chart Type	Example
	MultiSeriesCombination3D	
	MultiSeriesCombination2DDualYAxis	
	MultiSeriesLine	
	MultiSeriesStackedColumn2D For more information on this chart type, see Using MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDual YAxis Charts on page 97.	
	MultiSeriesStackedColumn2DDualYAxis For more information on this chart type, see Using MultiSeriesStackedColumn2D and MultiSeriesStackedColumn2DLineDual YAxis Charts on page 97.	

Table 1. Sample charts

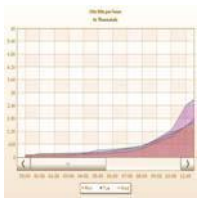
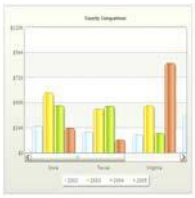
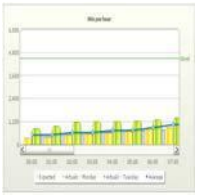
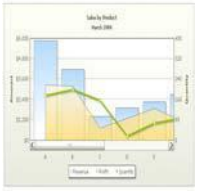
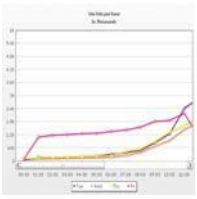
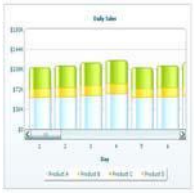
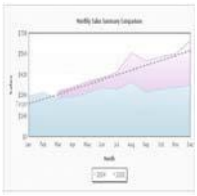
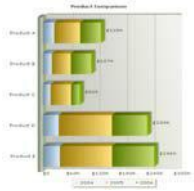
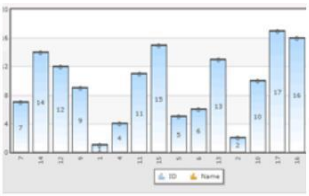
Chart Group	Chart Type	Example
Scroll	ScrollArea2D	
	ScrollColumn2D	
	ScrollCombination2D	
	ScrollCombination2DDualYAxis	
	ScrollLine2D	
	ScrollStackedColumn2D	

Table 1. Sample charts

Chart Group	Chart Type	Example
Stacked	StackedArea2D	
	StackedBar2D	
	StackedBar3D	
	StackedColumn2D	
	StackedColumn3DDualLineYAxis	

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About AgreeYa

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