WebViews Editor Guide

Foreseer

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Contents

Introduction

WebViews Editor is a graphic editing mode you can access directly in the Foreseer web interface. Using the WebViews Editor, you can modify and build the WebViews pages that make up a Foreseer user interface. WebViews pages typically fall into one of three categories:

- Location diagrams, which can be maps, floor plans, etc. These are two-dimensional, top-view diagrams used to direct users to the right geographic location. They are typically at the top levels of the Foreseer WebViews hierarchy. These are generally just a background image with links added in the appropriate places.
- Electrical one-line diagrams. These not only show the electrical connections, but also real-time data from the various devices depicted on the one-line. In most cases, these will make up the bulk of the WebViews pages in the Foreseer system. These consist of lines and devices as well as channel values from those devices.
- Elevation diagrams. Typically, these are front views of equipment cabinets with real-time data from the various devices displayed in the appropriate locations on the cabinet. They're built like location diagrams using a background image.

The WebViews Editor is a separately licensed product. If you don't have a license for the WebViews Editor, contact your Eaton sales person or application manager. There are a few things you'll need to do before you can start building your WebViews pages:

- Have an installed and configured instance of Foreseer available.
- Make certain your login credentials are part of a Foreseer user group with sufficient privileges to use the WebViews Editor. This is described in the *Foreseer Server Guide*.
- Install the appropriate devices in Foreseer via either the Device Config utility or the Foreseer server. Once installed, devices and their channels are available on pages throughout Foreseer.
- Create the folder hierarchy (using the WebConfig utility) you'll need to support your various WebViews pages. Each WebViews page must have its own folder in the hierarchy.

> ⊘ The WebViews Editor is intended for use on a PC only, and requires both a keyboard and pointing device. You cannot use WebViews Editor on a tablet or Chromebook.

Introducing WebViews Editor Guide

WebViews pages are graphical representations of a Foreseer site used to monitor multiple locations and conditions. A WebViews page can be:

- Map or floor plan-based diagrams showing the location of sites, buildings, and equipment.

- One-line electrical diagrams that provide real-time views of critical energy data from your equipment.
- Location diagrams, showing the physical location of equipment in electrical panels as well as real-time data from that equipment.
- Detailed dashboard views of the most popular real-time data from each piece of equipment.

WebViews Editor is used to construct and configure WebViews pages. The editor works within your browser, and provides tools to:

- Place and configure objects that represent devices or channels and provide real-time channel data.
- Draw lines to connect devices in a one-line diagram.
- Place and configure graph and waveform objects, to provide detailed views of channel data or events.
- Add text boxes.
- Add graphics to WebViews pages or define a graphic for use as a background image on a page.
- Create hyper-links to navigate to other WebViews pages.
- Apply display styles to set the look-and-feel of elements on a WebViews page.
- Connect lines and control objects to device channels.
- Add HTML iFrame objects to display information from other web assets, such as video feeds or external web pages.

Accessing WebViews Editor Guide

Access to WebViews Editor Guide is controlled by Foreseer's account privileges. At a minimum, anyone accessing WebViews Editor Guide requires the PXSauthADMIN permissions. Also, editing web pages requires the right to view the pages. There are a number of permissions that carry the right to view all WebViews pages. See the Foreseer Administrator's Guide for more details about account privileges.

The URL for the WebViews Editor is:

http://foreseer_server/WebAdmin

or, if HTTPS is active on the Foreseer Server:

https://foreseer_server/WebAdmin

where *foreseer_server* is the domain name or IP Address of the Foreseer Server website. Supported browsers include:

- Internet Explorer 11 - 11.1451.16299.0 or later
- Safari - 12.0.3 (14606.4.5) or later
    - macOS minimum requirement – macOS 10.14 Mojave and later
- Chrome – 78.0.3904.97 or later

- Edge – 44.17763.831.0 or later

Guide to the WebViews Interface

The right-click menu has been replaced by the top menu and the side bar. Click the Edit command in the top menu to edit the WebViews page. The following figures highlight the various parts of the interface and provide a quick reference. If you are unfamiliar with the Foreseer interface or want more information, refer to the more detailed topics after this quick overview.

- Editing Interface
- Sidebar Tabs
- Object Placement
- Object Properties
- Channel Picker
- Controlling Links
- Layer Menu

Editing Interface

The WebViews Editor editing interface is designed to have your WebViews page designed on the left side of the screen and the controls available for creating your page on the right. Use Add or the sidebar to add objects to the page. When you are satisfied with your changes, click Save.
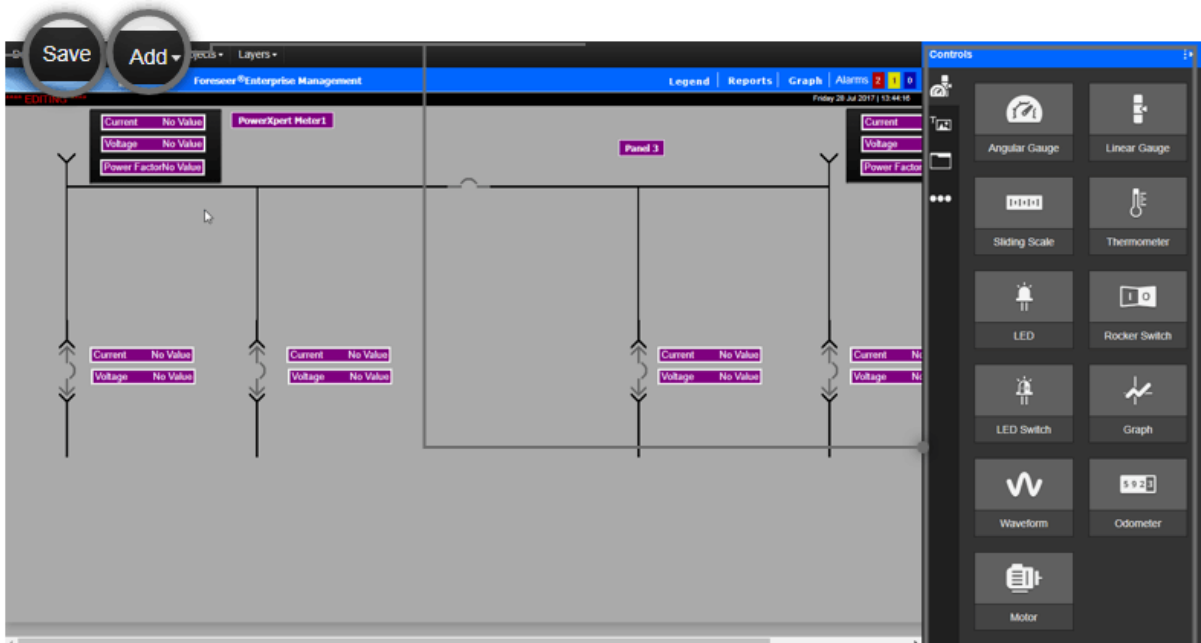
WebViews Editing Interface: saving and adding.

Sidebar Tabs

You can use the sidebar tabs to select which controls are displayed

- Controls
- Text and Graphics
- Channels and Folders
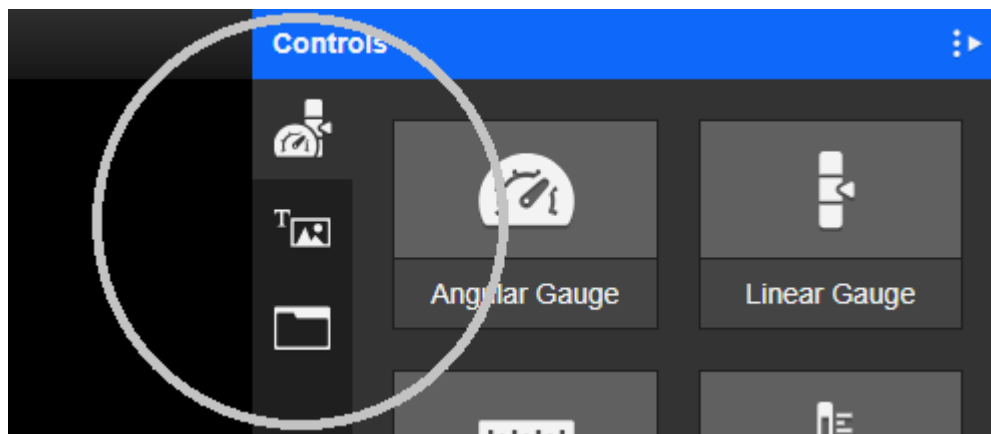
Object Placement

To place an object, double click on the object to place it on the page.
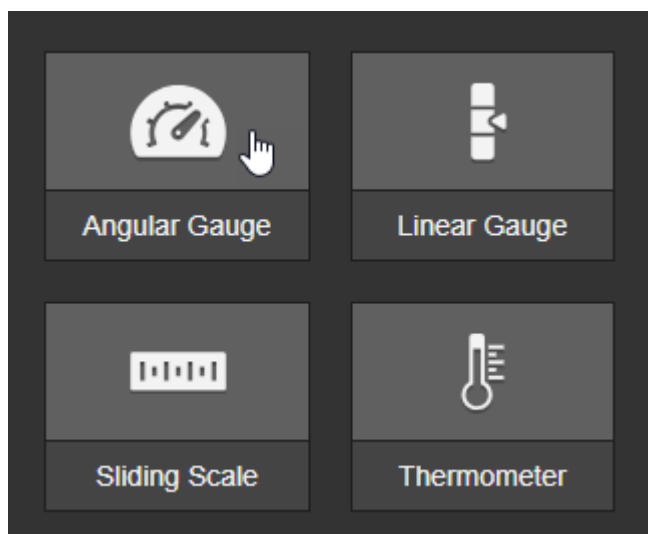
Object Properties

To display all of the object / control's properties, select the object you are interested in and the properties for that object will be displayed in the right panel.
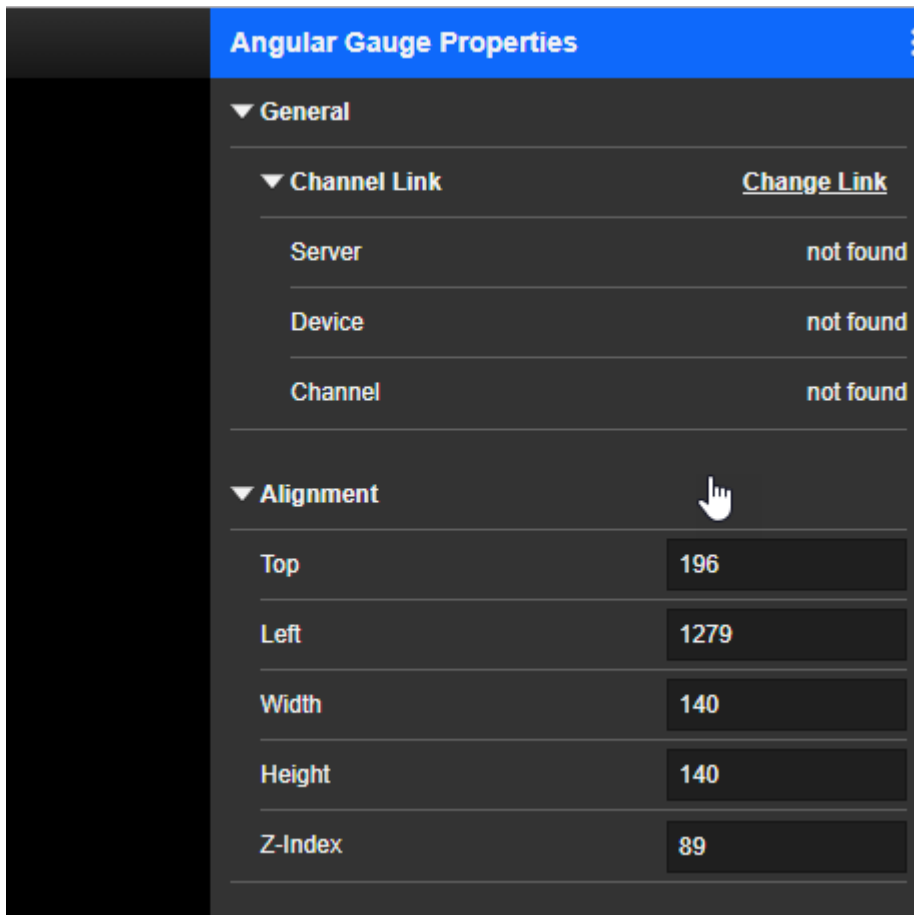
Channel Picker

Use the Edit Link channel picker to link to a channel.
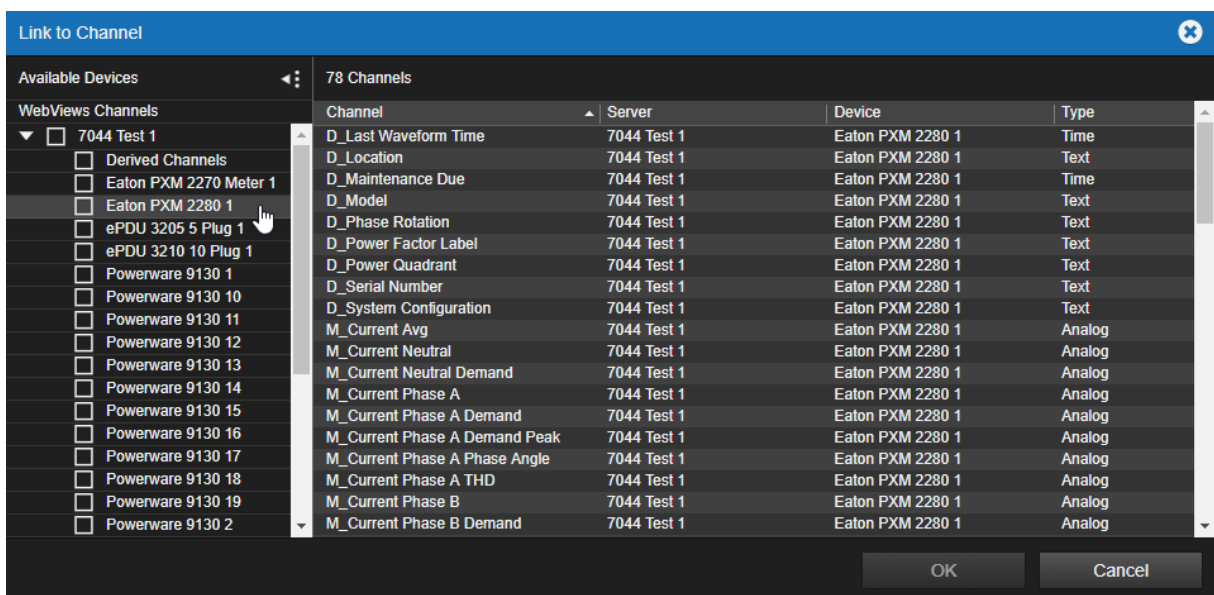
Controlling Links

You can link channels and view what is linked, as well as control the background image from the Object Menu
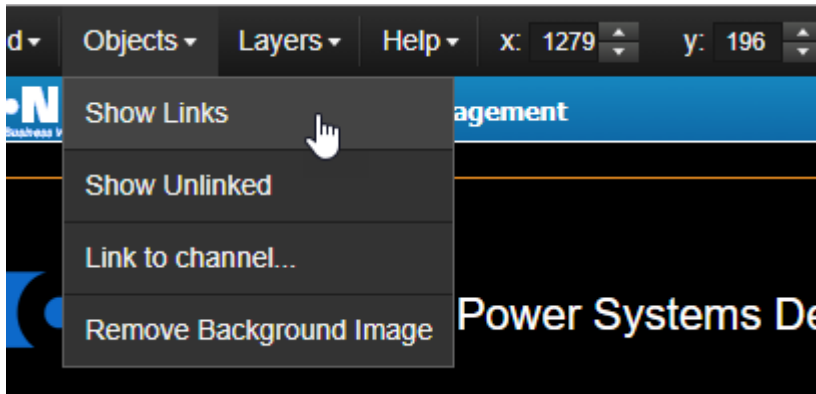
Layer Menu

Use the layers menu to control z-axis layers.
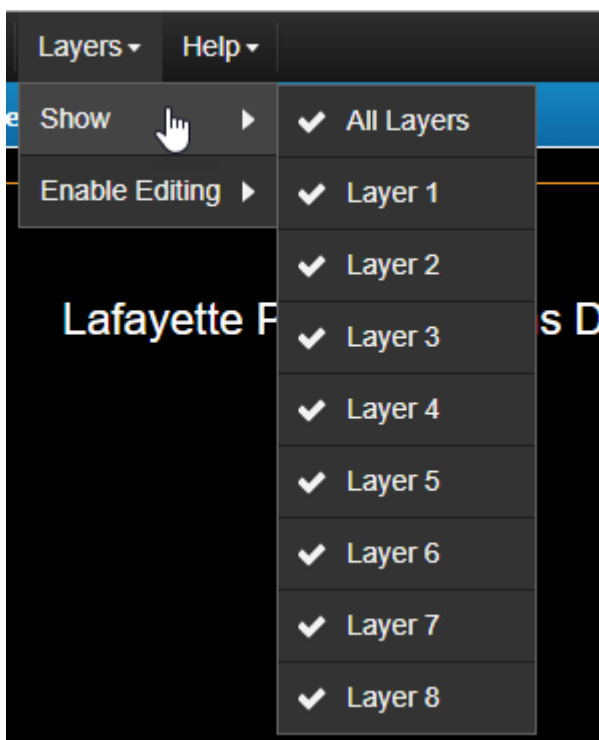
The WebViews Editor Guide Interface

This section will describe the WebViews Editor Guide in detail and the controls available to create custom WebViews pages

Design Considerations

This chapter covers:

- An introduction to working with the WebViews Editor.
- How to plan your WebViews pages.
- Z-Index Layers, which can be used by all drawing objects (except the background layer)

  - Designing Pages
  - Getting Started
  - Templates
  - Default Layout File
  - Layer Groups and Z-Index Settings
  - Using Editor Layers
  - Flash and Control Objects
  - Working With Images
  - Image Objects in the WebViews Editor
  - Graphics Directory in Foreseer

Designing Pages

Creating WebViews pages in the WebViews Editor is similar to using a drawing or illustration program, with a few critical differences:

1. In some respects, what you can do is limited because you are interacting with a web browser while creating the page. For example, while you can draw single segment or multi-segment lines, these lines are constrained to right angles. However, the advantage to using the browser is that you don't need to install a special application on the client or server computer to create the WebViews pages, instead all you need is a browser.
2. Many of the drawing objects can be connected back to live data from the various devices on your network. These drawing objects can help users visualize what's going on in your electrical system by displaying values received from devices as a color, action, or by directly displaying a value. For example:

   - A line in a one-line diagram can change color to represent the current value of a monitored attribute.
   - An animation of a relay symbol will open and close when data is received indicating that the relay itself has opened or closed.
   - An analog gauge will indicate the current or voltage value from a monitored attribute. A Channel object will change color to indicate that a critical or cautionary alarm exists.

3. You can also place navigational objects to link to other WebViews pages, which can provide links to other locations in the tree or give the user a "breadcrumb" trail for navigating back through the WebViews pages.

Getting Started

A good approach to creating your WebViews pages is to begin by drafting them with pencil and paper. Consider which pages should be "children" of other pages and how pages should be linked. Such a diagram will tell you how to construct the folder structure to support your web design.

For individual pages, sketch out the areas for object placement including text descriptions to identify the various objects that will occupy each space. Once you have created the basic layout for a page, determine which objects should be grouped for easy editing (see Layer Groups and Z-Index Settings). You may want to group image objects together or place all the user interface objects in one Layer Group. Remember that you need not get the layout perfect for
each page; changes inevitably will be made as the project progresses.

Because the WebViews Editor isn't a true drawing program, you can't use it to generate complicated graphic art. You're also restricted by browser display limitations. Therefore, objects created within the WebViews Editor are confined to straight lines and squares drawn along the X- and Y-axes. Curves, diagonals, or rounded corners can only be introduced into the page design by first creating such images in a dedicated graphics program and then uploading those graphics.

Also, before starting to lay out your pages, determine what devices and Channels should be added to Foreseer to ensure that you have the correct data inputs available. Having these available for use will make the task of building the pages just that much easier. Keep in mind that you can reference Channels from child WebViews in the parent.
Finally, there is an automatic resizing function that occurs when you switch from editing a WebViews page. This can cause objects on the edges of very large pages to not display in Monitor view. To test this, simply examine your WebViews page after you save and exit from edit mode.

> ⚠ Performance may degrade if more than three people are simultaneously using the WebViews Editor.

> ⚠ Performance may degrade if you place a very large number of objects on a page, especially if the objects actively display data.

Templates

If you intend to create templates for use in WebViews, you should plan for future expansion by anticipating the greatest number of channels and objects that could be placed on any given page. Extraneous channels and objects can always be deleted from pages that are

created using a WebViews template. By initially defining the maximum number of potential objects, you can accommodate potential changes and alter page design as necessary rather than revising the template later. It is important to remember that you will have to update every derivative page at the Web Server if you change a template. Thus, while the investment in initial design is somewhat greater, the result is easier creation of any future pages based on your template.

Default Layout File

A default web page is created whenever a new folder is added to the WebViews hierarchy. The index.htm file that is created normally loads the style sheets, script files and default HTML elements for the page. The page also receives a layout file (layout.xml) that defines the initial objects on the page. This is based on the DefaultLayout.xml file located in the WWW/Support folder. The default layout consists of a page header containing a Date and Time object, a Breadcrumbs object, and an Alarm Count object.

To override the default layout, you can create a new file (named user_DefaultLayout.xml) by editing any WebViews page until you are satisfied with the positioning of objects. Simply duplicate and rename the copy of the layout.xml file in that page's folder, then copy it to the WWW/Support folder.

The index.htm file is created from page begin and page end template files (PageBegin.tmpl and PageEnd.tmpl), also located in the WWW/Support folder. These template files similarly can be overridden by introducing new files named user_PageBegin.tmpl and user_PageEnd.tmpl to the WWW/Support folder.

Layer Groups and Z-Index Settings

Layer (groups) 1 through 8 allow you to hide all objects that exist in a set of layers, temporarily removing them from editing. To make things easy, layer groups span all layers in a decade (twenties, thirties, etc.). So, if you turn off "show" for objects in Layer (group) 2, any objects with a Z-index layer of 20 through 29 would be hidden. When you save and click Done, all hidden layer groups are shown in WebViews. You can hide and show Layer (groups) through the Show command on the Layers menu.
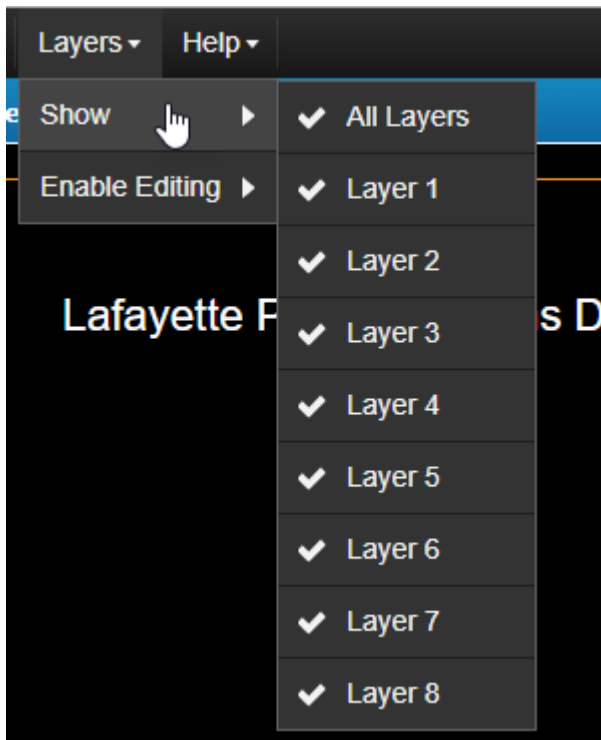
The Z-Index function determines visibility for overlapping objects. The WebViews Editor supports 79 separate "drawing layers" (10 through 89) called Z-Indexes. All objects, by default, are initially created with a normal Z-Index of "50."

The normal setting should not normally be adjusted as in most cases design elements do not overlap. You should only have to map out the layering order of the affected objects in more complicated layouts. If the page layout requires objects to overlap, keep in mind that the higher the Z-Index, the "closer" the object appears to be (in the stack) to the viewer.

For example, assume two Text objects overlap. Text A has a Z-Index of "40" and Text B has a Z-Index of "50." The Text B object will be visible above Text A in the shared area.
If two objects with the same Z-Index overlap, the most recently created object is visible in the shared area. When the creation order is an issue, use the Z-Index commands to change the layering. You can either increment the Z-Index of the object you want in front (Alt+Plus) or decrement the Z-Index of the object you want in back (Alt+Minus). It's also important to determine the layers on which your page objects will reside. Because you may be adding many elements to a page (including some that potentially overlap), you'll want to establish an easy method to select these objects for editing. Layer groups allow you to turn editing capabilities on and off for all objects that exist in a defined layer.

An editing layer group limits which objects are eligible for selection based on their Z-Index value. When a layer group is active, all selection and editing commands affect only those objects within that group. The Ctrl+A command, for example, will only select objects with Z-Index values that fall within that particular layer group. The WebViews Editor has eight predefined layer groups, each group consisting of ten Z-Index layers.

The following figure shows an example of the layout groups, each with their own objects. In this example, objects were placed on layers 1, 2, and 8.
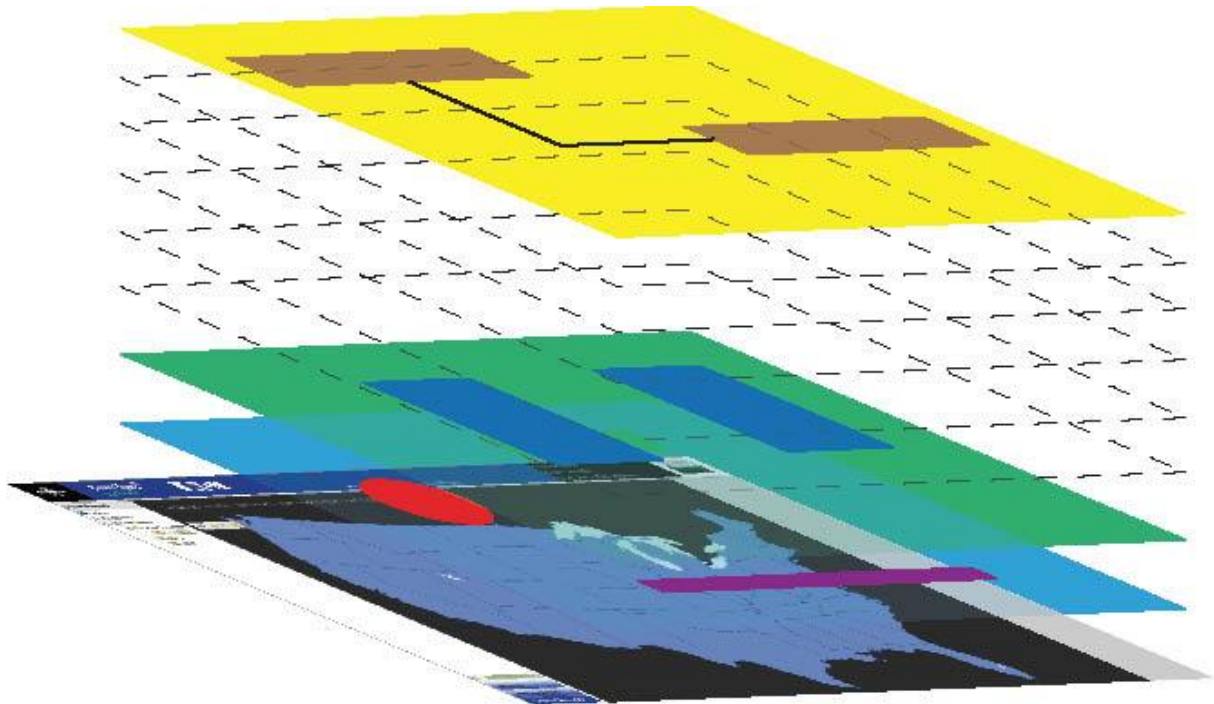
Layout groups in use. Note how the background image is always below the other groups.

The following defines the ranges of Z-Index settings for objects within each layer group:

Layer	Z-Index
Layer 1	Z-Index "10-19"
Layer 2	Z-Index "20-29"
Layer 3	Z-Index "30-39"
Layer 4	Z-Index "40-49"
Layer 5	Z-Index "50-59"
Layer 6	Z-Index "60-69"
Layer 7	Z-Index "70-79"
Layer 8	Z-Index "80-89"

To take full advantage of this feature, you should first decide the layer levels to which your objects will belong. As noted, layering is based on each object's Z-Index value, or relative position. The higher the Z-Index number, the "closer" the object is to the viewer; the lower the ZIndex, the further it is from the viewer. Therefore, the Z-Index determines which object is visible when two or more objects overlap. For objects with the same Z-Index, the order in which they were created determines visibility, with the newest object being visible in the overlapping area.

Applying layer groups to similar objects minimizes editing and revision time. The ten Z-Index levels within each of the eight layer groups allow you to move objects forward and backward within that group. This can be extremely useful when you're creating complex interfaces with numerous overlapping objects. For example, you can place one object on Z-Index "10" and another on Z-Index "19" to distance them visually, yet you can change both objects when

you're editing Layer 1.

> ✅ Although objects may be positioned inside a layer group, because they overlap they may still be difficult to edit. If you find this to be the case, isolate objects that are difficult to select on separate layer groups once the layout is complete.

To make the best use of layer groups, turn the layer editing function on as you bring elements into the page. For example, suppose you want the static images segregated for easy selection. You might place those objects while you're editing Layer 4 (Alt+4). This places the objects in the current Z-Index group at Layer "45" and allows you to edit them separately from other content.

Using Editing Layers

Keep the following in mind when working with editing layers:

1. A selected object's layer can be changed by double-clicking it and then typing the appropriate level in the Z-Index field.
2. When you create objects, ensure they are created within the appropriate level by first using the Alt+1–8 keys to switch to that level.
3. If you choose to import or create an object in a specific layer group, that object is placed in the middle layer of the group. For example, if you choose Layer 1 to be the active layer, the object you import into the group will be placed on Z-Index "15," Layer 2 on Z-Index "25," and so on.

The following list identifies where new objects are placed in the Z-Index hierarchy if you place the object without first setting the editing layer (or if you press Alt+0). If you haven't set the editing then most objects are placed at the same level and you must manually change the ZIndex setting.

Object	Layer
Channels	Layer "50"
Folder	Layer "50"
Line Object	Layer "50"
Animated Image	Layer "50"
Static Image	Layer "50"
Text Object	Layer "50"
Flash Object	Layer "89"
Hyperlink	Layer "89"
Control Object	Layer "89"

Once an object is placed, you can easily move it to a different layer. The Z-Index Front and Z-Index Back commands move the selected object(s) to the front or back of the active layer; the Z-Index Increment (Alt+Plus) and Z-Index Decrement (Alt+Minus) commands move the

object(s) one layer at a time in each direction. These settings are found in the object's properties.

Flash and Control Objects

Flash and Control objects are exceptions to the Z-Index level hierarchy. These two object types are always in front of other types of objects regardless of the level to which they are assigned. Thus, you will not be able to place other design objects at a higher level than these two object types. However, you can place like objects (other Control or Flash objects) on top of each other using the Z-Index commands.

Working with Images

As mentioned earlier, the WebViews Editor can only create lines and rectangles. All other images must be in the form of graphics files that you either pull from the built-in library or create in a third-party graphics application and upload to the Foreseer server. You'll also need to use graphics files if you wish to provide backgrounds for WebViews pages.

Image Objects in the WebViews Editor

The WebViews Editor supports the following types of image objects:

Object	Description
Background Image	These provide a background to the WebViews page, one per page. A background image can't be scaled, so when you create them be mindful of the target size of the page. they will however be resized according to the "Resize to Fit" function of WebViews.
Static Images	These are simply graphics and can be positioned and sized as you wish on a page. You can use these to represent electrical equipment or whatever you like. For example, if you are showing two buildings on a single web page then you could load both floor plans as images. While these are called static images, you can provide animation by using animated .gif files.
Animated Images	These aren't truly animations, but rather are sets of three images used to represent zero, non-zero, or no data values from a Channel. Thus, one designated image from the set will display when the value is zero, another will display when the value is non-zero, and a third will display when no data is available from the Channel.
Value Mapped Images	These are sets of up to 10 images, and each image can be mapped to

	multiple numeric or text values from the Channel.
Flash Images	These are true animations and continue to loop as long as the page is displayed.

Background images, static images, animated images, and value-mapped images are all bit-mapped graphics, and can be JPEG (.jpg), GIF or animated GIF (.gif), or PNG (.png) format.

There are some design considerations to keep in mind when creating graphics:

- Create graphics at exactly the size you'd like them to display. While you can resize the graphics in the WebViews Editor the clarity of the graphic is limited by the number of pixels and the resolution. Thus, if you have an icon for electrical equipment that's only 24 pixels x 24 pixels, it will look "blocky" if its size is greatly increased. Also, if the size of a graphic will be reasonably small on WebViews pages, don't create a high-resolution file with lots of pixels. This simply wastes storage space on the server and needlessly uses bandwidth when loading a page in the client browser.

- Consider the resolution of the client display when constructing background images. Background images will not automatically stretch and cannot be resized. Therefore, set your display to the same resolution as the client machine(s) when you build your background graphics so that you can judge how large they should be.

Graphics Directory in Foreseer

If you're loading a large set of graphics and you have access to the Foreseer, you can copy the graphics files into the appropriate folders.

The default folder for images is in Windows is:

<Install Drive>:\Eaton Corporation\Foreseer\WWW\Support\images

The folder is populated with sub folders which contain images in the different formats. It is important that image files be placed in the proper folder:

Folder	Description
anime folder	Contains "animation" files (either Animated Images or Value-Mapped Images).
page folder	Contains default map and panel images used for user view page backgrounds.
static folder	Contains web page image files. Use Ctrl+I to view these files.

If you do directly copy files to these directories, keep in mind that the image manager will only delete files that have the read-only Channel cleared. Conversely, if you want to prevent users from deleting files, set the read-only attribute.

Creating and Editing Styles

Styles modify the appearance of Channels, Lines, Text Boxes, Hyperlinks, and Folders. You can either create new styles or edit existing styles that were created by you or another user. You can't edit the built- in set of styles.

- Creating a New Style
- Editing a User Created Style

> ⊘ You can't create a new style for a Line. You can only assign one of the built-in styles to a Line.

Creating a New Style

For new or user-created styles, you can change the text size, weight, font family, color, and orientation. You can also change the color and border appearance of objects. To edit or create a style, select an object and click Create/Edit.

When creating a new style, you'll need to give it a name. You can't use spaces or special characters in the style name. If you do, you won't be able to click Next until you remove them. After specifying a name, select a style from the dropdown list to use as a model. This preloads the new style with the settings from the style you select in the list. The appearance of the selected style is shown in the Preview. Click next to modify the appearance.

You can change the border and background transparency on the gear tab. Background color can also be set for all objects except Channel and Folder. You can see the results of your changes in the Preview. If you want to set a specific color for the border, instead of selecting a color using the picker you can enter the hexadecimal code for the color directly. When you move to another field or press tab the new color will show in the preview. Note that background color cannot be set for either Folders or Channels.
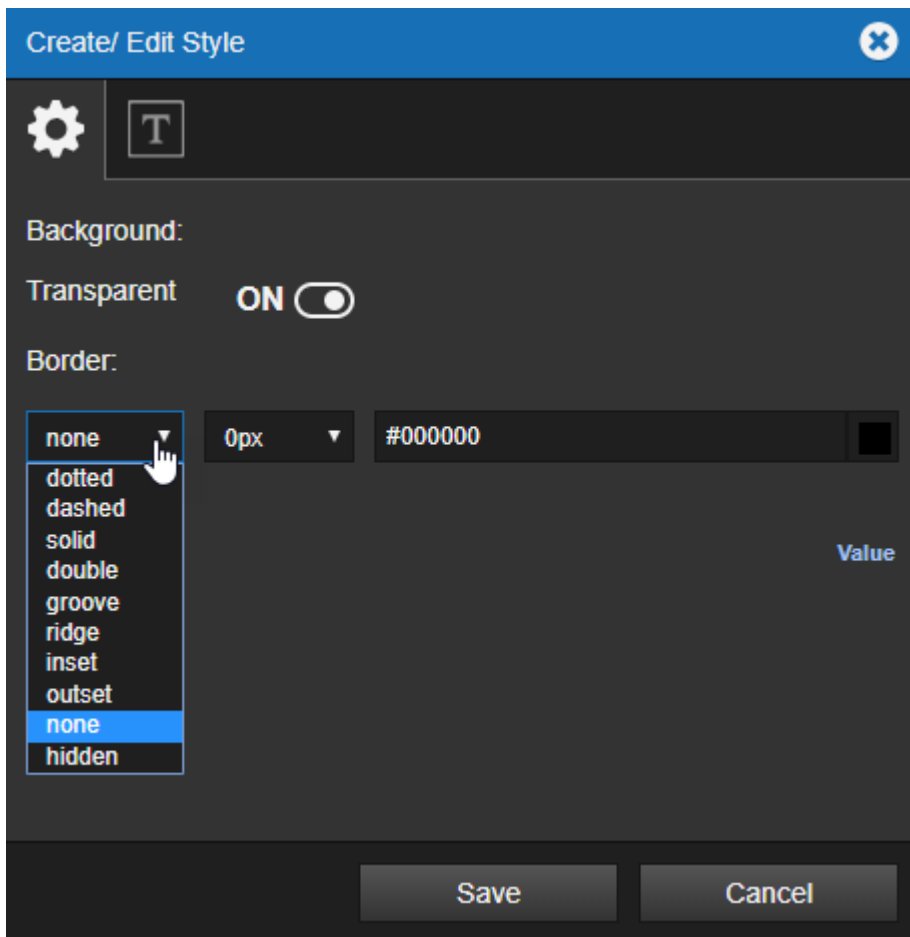
Use the Type tab to change the appearance of the label text. You can set the font family, size, color, weight, and orientation. The list of available fonts is the set of fonts currently installed on the Foreseer server.
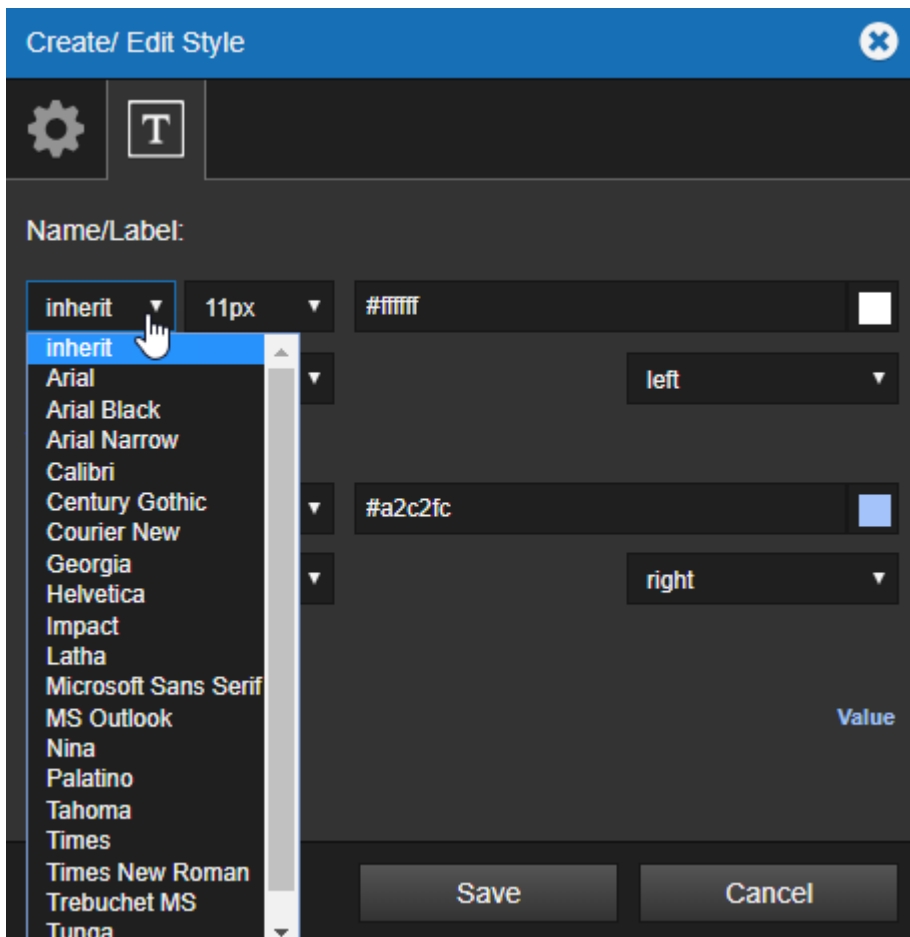
When you've finished making changes, click Save to add your new style to the list.

Editing a User Created Style

To edit an existing user-created style, simply select Edit Existing Style and then select it from the Style list. You can now change all of the attributes of that style just as you did when it was created.

Aligning Objects and Lines

This chapter covers methods to use to align objects and lines as well as describing the use of Layers in WebViews Editor.

- Selecting Multiple Objects
- Layer Groups
- Using Layers to Overlap Objects

Selecting Multiple Objects

When editing, click-and-drag a selection box to completely enclose the objects that you wish to select. Partially enclosed objects won't be selected.

Selection Box (Rubber Band Control)

You can also select multiple items by Ctrl-clicking each one (use Cmd-click on a Mac).
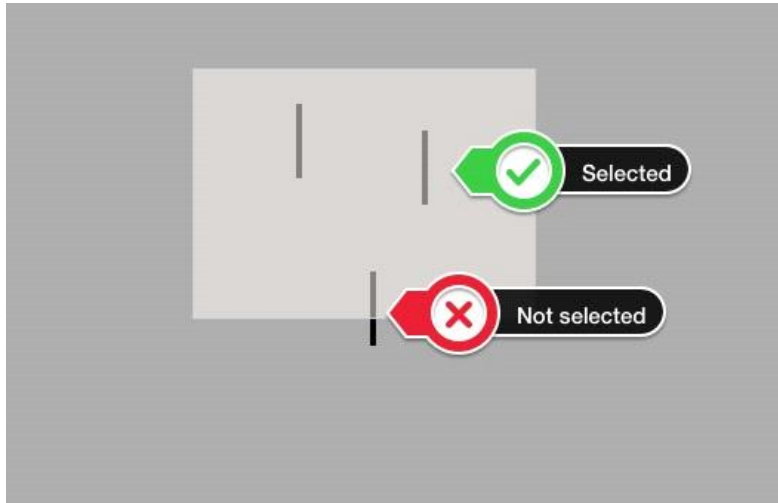
Selection Box

The Importance of Focus

Objects and Lines align around the object with focus. You can tell an object has focus because it has a red outline and sizing handles (as opposed to a blue outline which shows a selected object). In the following figure, the center line has focus.

A focused object is taken as reference for the positioning while aligning the objects using alignment controls, like top, bottom, right, left, and middle
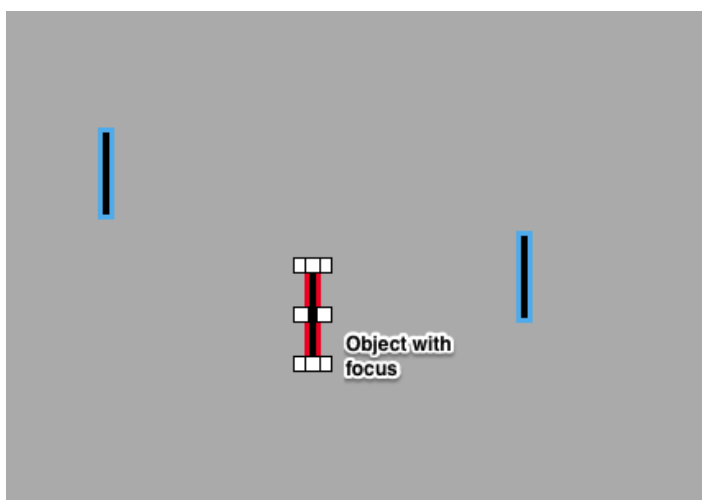
Focus in a Group of Selected Objects

Selected Objects

Other selected objects align around focus. The following example shows how this works with Vertical Align Top. This is a handy behavior because you can select which object to align to instead of everything aligning to the object that is furthest in the direction of alignment.
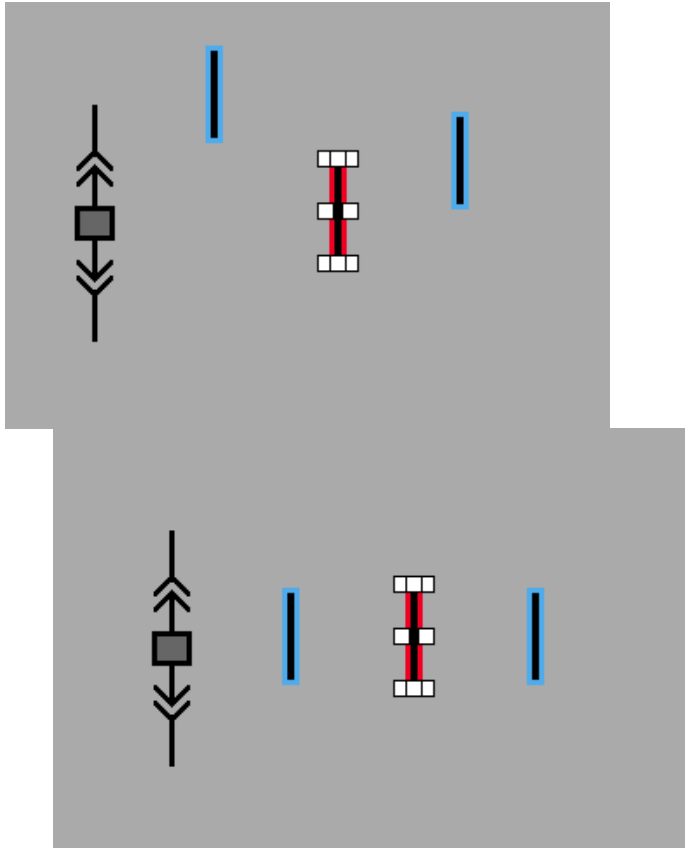
For example, Vertical Align Top always aligns with the top of the item that has focus.

Using Layers to Overlap Objects

The Z-Index function determines the stacking order for overlapping objects. The WebViews Editor supports 79 separate "drawing layers" (10 through 89) called Z-Indexes. Most objects, by default, are initially created on Z-index layer 50. However, some objects have a different default layer; for example, control objects are on z-index 89 and iFrame objects are on z-index 51.

In most cases design elements do not overlap, so you don't need to change the layer for the object. If the page layout requires objects to overlap, keep in mind that higher the Z-Index numbers are closer to the "top" of the stack and will appear over objects on lower layers.

You can use either the toolbar or sidebar to change the z-index level.
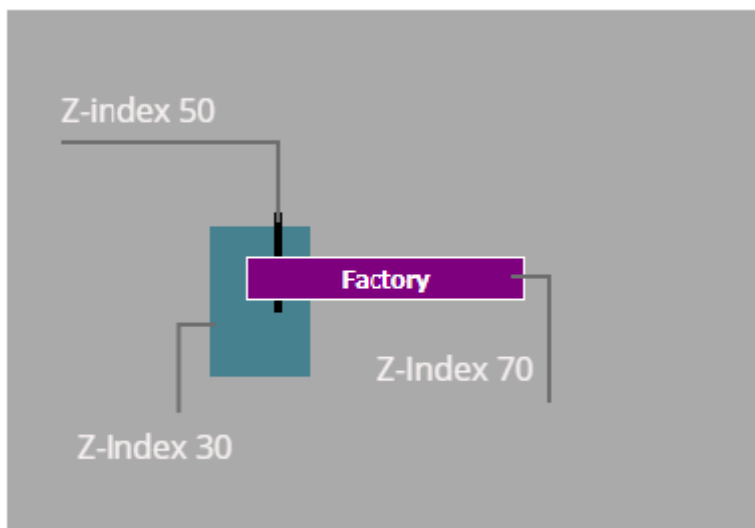
Three stacked objects on different z-index levels.

> ⊘ If two objects with the same Z-Index overlap, the most recently created object is on top (even though both objects are still on layer 50). When creation order is an issue, use the Z-Index commands to change the layering.

Working with Channel Objects

One of the most useful WebViews Editor design objects is a Channel object. You must first create all of the Channels necessary for your Channel objects. In brief, a Channel object can display values from any device that's been added to the current WebViews page or any of its child pages. Once Channel objects have been added to the layout,
you can move them around the page and style them as desired.

- Channel Objects
- Adding a Device Channel to an Object
- Channel State Color Codes
- Status of Devices and Channels
- Bubble-Up Examples

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Channel	Yes	Primary Use	Yes	Yes	Yes	Yes
Checkbox	N/A	Primary Use	N/A	N/A	Yes	No
LED	Primary use when Type = Value	Primary use when Type = State	No	No	Yes	No

> ⊘ Before you can place objects on a page, the page must be in edit mode.

Channel Objects

A Channel object can display values from a single channel for any device added to Foreseer. These objects, especially Channel, are used throughout WebViews pages to provide operators with real-time updates to Channels. Channels are often shown:

- By themselves, usually on electrical one-lines or floor plans.
- Grouped together in "boxes" (which are merely static images) to show the most important Channels from a device. These are usually shown on an electrical one-line.
- Superimposed over elevation diagram panel static images to show Channel values from an object in that position.
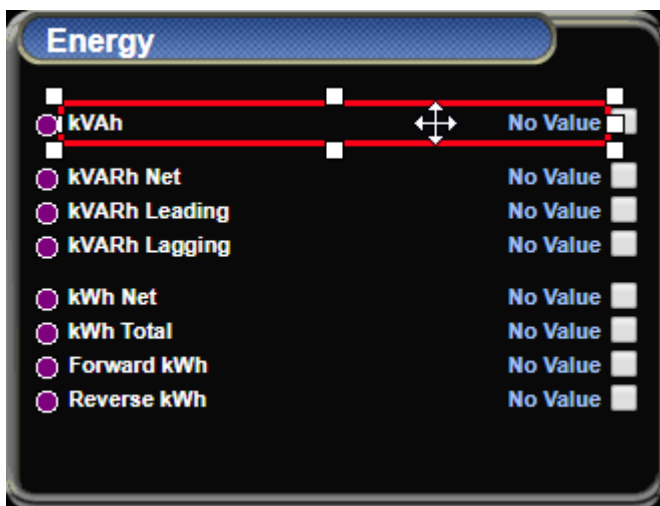
A channel object in a data display box (edit mode)

A Channel object can display values from a single channel for any device added to Foreseer. You can place a Channel object through either the shortcut key "C" or by using the Channels and Folders tab on the sidebar. You can continue to press "C" to cycle forward or Short+C to cycle backward through the various channels already in use on the page. You can press "F9" to add a set of channel objects corresponding to all channels currently in use on the page.

> ⊘ You can pre-load a set of channels onto a page through the WebConfig Utility.

Adding a Device Channel to an Object

You can link any object to a device or derived channel through either:

- Channel Link in the side bar
- The Link to Channel command in the Objects menu.

Click the Change Link to launch the Link to Channel dialog box. Along the right, you'll find a tree listing servers, devices, and channels. You can expand the list under servers (in this case, just the local Foreseer server) to show all of its devices, system channels, and derived channels. Click one of these to select it.

> ✓ WebViews Channels, are only those channels already in use or channels added through the WebViews Editor.
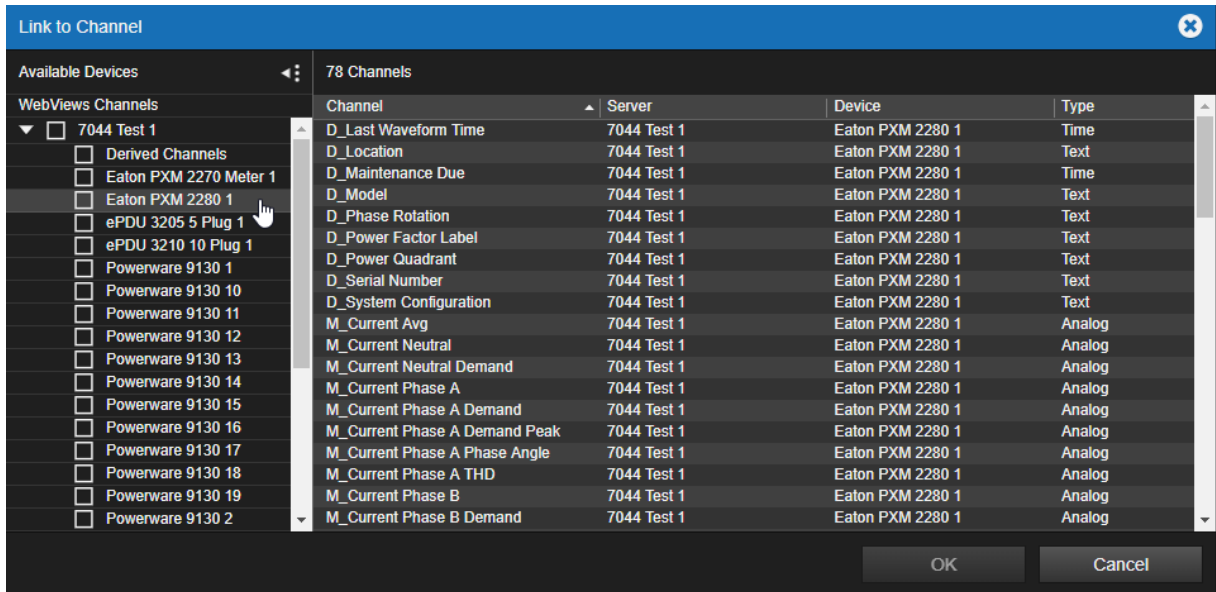
Channel State Color Codes

The Alarms/Events Log provides a view of Channel alarms or events. You may however wish to provide an at-a-glance view of the status of devices.

Device or Channel status is indicated by color:

	Color	Alarm State
🟥	Red	Critical alarm state
🟨	Yellow	Cautionary alarm state
🟦	Blue	Acknowledged alarm state
⬜	Gray	Inactive alarm or event state. This is the default color for Channel objects in edit mode.
🟪	Purple	Disabled
🟦	Light Blue	Disarmed
🟩	Green	Normal

The device status that bubbles up is the highest priority status of the various devices. The following lists the priorities of device status:

1. Critical alarm, which always bubbles up.
2. Cautionary alarm, which bubbles up if there are no devices with a higher priority status.
3. Critical acknowledged alarm, which bubbles up if there are no devices with higher priority status.
4. Cautionary acknowledged alarm, which bubbles up if there are no devices with higher priority status.
5. No data, which bubbles up if there are no devices with higher priority status.
6. Disabled, which only affects the containing nodes. Both devices and channels can be disabled. Disabled will only bubble up to the direct parent node. It will not bubble up beyond the direct parent device.
7. Disarmed, which has the lowest priority, and only affects the direct parent device containing the disarmed channels. It will not bubble up beyond the direct parent device.
8. Normal status.

> ⊘ Only channels can be disarmed in Foreseer.

Also, as a designer, keep in mind that the targets of a Folder link can be:

- Another WebViews page. In this instance the Folder Link serves both as a navigational tool (click it and the browser jumps to the target WebViews page) and as a visual indicator of the status of the target WebViews page. A WebViews page status is derived from the status of all of the devices in the Devices list for that page as well as the status of any sub-views.
- A device summary page. In this instance the Folder Link provides a visual indication of the status of the target device and a quick link to that device summary page for more information.
- An arbitrary node in the System tree. For instance, if the target of the Folder Link was the System node itself, the status reflected in the Folder Link would be the status that bubbled up from all nodes in the tree. If the target were the Foreseer node, the status would be derived from all devices attached to that node.

Status of Devices and Channels

Devices and channels in the network tree manage their own alarms and status and the status of their "children" are not involved in determining this. Their status is determined by the following sets of priorities:

1. Disabled has the highest priority.
2. Next is no data.
3. Next is disarmed. (If the device is disarmed, its alarm state is ignored.)
4. Next is unacknowledged critical alarm.
5. Next is unacknowledged cautionary alarm.
6. Next is acknowledged critical alarm.
7. Next is acknowledged cautionary alarm.
8. Last is normal.

Bubble-Up Examples

The following sections attempt to pull all of the information about bubble up together in some examples. They show how device status is derived and how it bubbles up for each major section of the tree.

Foreseer Nodes

The following shows examples of how status bubbles up through the devices connected to Foreseer. In the example, the Foreseer entry is the Foreseer node in the System tree.

Foreseer			
	local		This is red because of a red child device
	Device 1	**Device Communications**	This device is red because of a red attribute
		Channel 1.1	
		Channel 1.2	
		Channel 1.3	
	Device 2		This device is gray as long as there is a gray attribute
		Device Communications	
		Channel 2.1	Only Foreseer monitors every channel constantly
		Channel 2.2	
	Device 3		This device is gray as long as there is a gray attribute
		Device Communications	
		Channel 3.1	
		Channel 3.2	
	Device 4		This device is red because of a red attribute
		Device Communications	
		Channel 4.1	
		Channel 4.2	

Common Design Tasks

There are some common tasks that are used throughout WebViews Editor. Those include:

- Linking to a Channel
- Adjusting Absolute Position
- Finding Objects Without Links
- Finding What Channels are Linked to Objects

Linking to a Channel

Click to select the design object that you wish to link to a Channel. You may select as many objects as you like to link to the Channel input.
Press Ctrl+Spacebar.
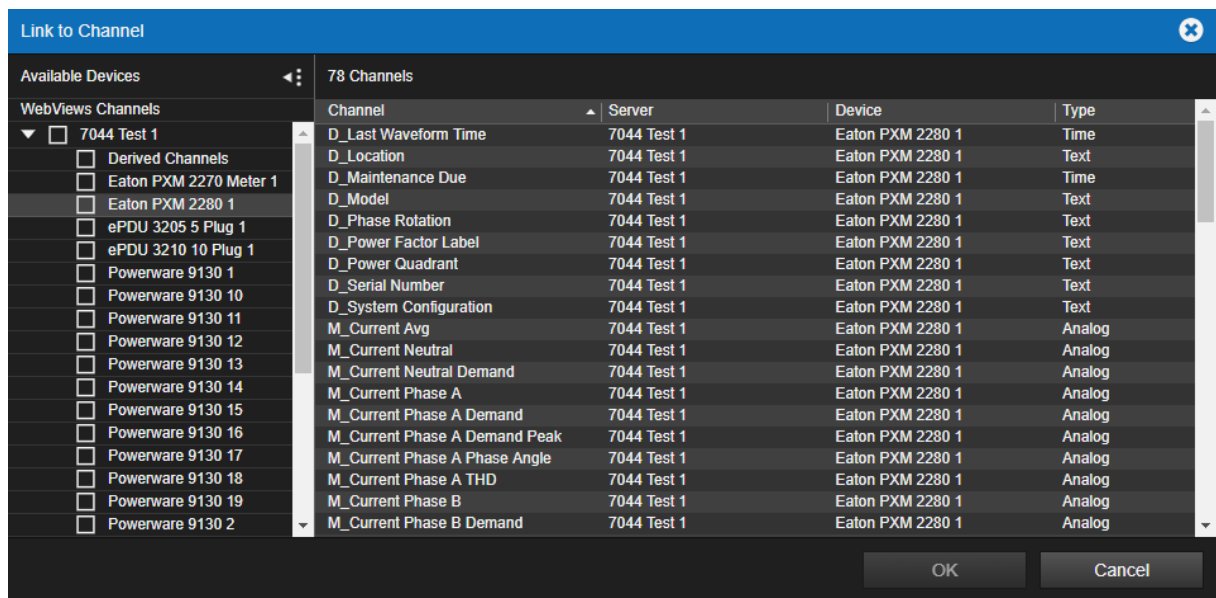
1. Click the appropriate Channel in the list that appears.
2. Click **OK**.

Adjusting Absolute Position

The Alignment controls set the top and left starting positions of the object (measured from the top left corner) and its width and height. All settings are in pixels. Z-index sets the stack order. For more about how z-index works in Foreseer, see [Layer Groups and Z-Index Settings](#).

Finding Objects Without Links

To determine which objects are not properly linked to the appropriate Channels, press the "U" key (or select Show Unlinked from the Objects menu). Unlinked objects or objects not linked to an available Channel are highlighted.

Finding What Channels are Linked

To see which Channels are linked to objects, press the "K" key (or select Show Linked from the Objects menu). Linked objects or objects linked to a Channel are highlighted.

WebViews Controls

This chapter describes each of the Control Objects available for use in WebViews Editor. You can access these controls while in Edit mode. When WebViews is in edit mode, you'll see these controls on the right side of your screen.

- Angular Gauge Control
- Linear Scale Control
- Sliding Scale Control
- Thermometer Control
- LED Control
- Rocker Switch Control
- LED Switch Control
- Graph Control
- Waveform Control
- Odometer Control
- Motor Object Control

Controls

Angular Gauge	Linear Gauge
Sliding Scale	Thermometer
LED	Rocker Switch
LED Switch	Graph
Waveform	Odometer
Motor	
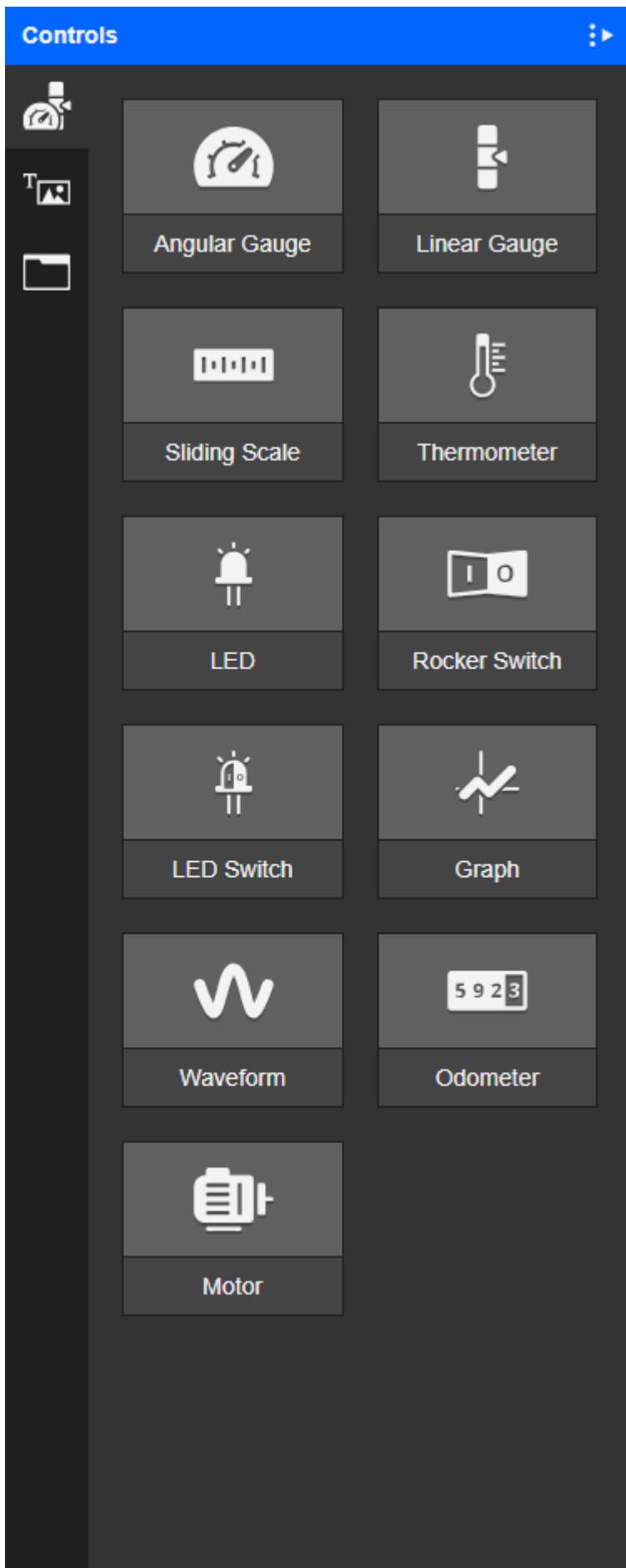
Angular Gauge Control

The Angular Gauge control object is a graphical linear gauge that presents an angular representation of the data.

Angular Gauge Type

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Angular Gauge	No	Primary use: analog values above zero.	No	No	Yes	No

Angular Gauge Icon

Angular Gauge Default Object
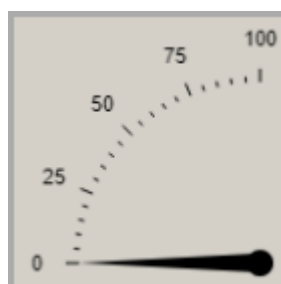
Angular Gauge Properties

Angular Gauge Properties

▼ General

▼ Channel Link   <u>Change Link</u>

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	470
Left	961
Width	140
Height	140
Z-Index	89

▼ Gauge

Position Min	0
Position Max	100
Auto Size	✔
Show Inner Arc Radius	☐
Show Outer Arc Radius	☐
Reverse Scale	☐
Transparent	☐
Background Color	#D4D0C8 ◻
Border Style	Lowered ▼
Precision Style	Significant Digits ▼

▼ Pointer

Pointer Style	Triangle ▼
Pointer size	10
Pointer Margin	0
Pointer Color	#000000 ◼

▼ Arc and Hub

Arc Range Degrees	90
Arc Start Degrees	180
Show Hub	✔
Hub Size	14
Hub Color	#000000 ◼

▼ Major Ticks

Show Ticks Major	✔
Major Tick Count	5
Major Tick Length	7

Linear Gauge Control

The Linear Gauge control object is a graphical linear gauge that presents the data in either a horizontal or a vertical format.

Linear Gauge Type

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Linear Gauge	No	Primary use: analog values above zero.	No	No	Yes	No

Linear Gauge Icon
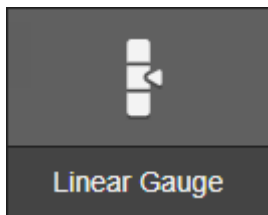
Linear Gauge Default Object

Linear Gauge Properties

Linear Scale Properties

▼ General

▼ Channel Link — **Change Link**

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	539
Left	1215
Width	50
Height	200
Z-Index	89

▼ Appearance

Orientation	Vertical
Tick Orientation	Bottom/Right
Tick Precision	2
Ends Margin	10
Pointer Color	#0000FF
Pointer Style	Pointer
Pointer Size	10
Transparent	
Background Color	#D4D0C8
Border Style	Lowered

▼ Labels

Show Tick Labels	✔
Tick Label Font	Arial
Tick Label Font Size	8
Tick Label Font Color	#000000
Position Max	100
Position Min	0

▼ Major Ticks

Show Major Ticks	✔
Major Tick Count	5
Major Tick Length	20
Major Tick Color	#000000

▼ Minor Ticks

Show Minor Ticks	✔
Minor Tick Count	4
Minor Tick Length	7
Minor Tick Color	#000000
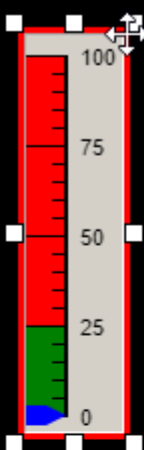
▼ Sections

Section Count	0
Color 1	#008000
End 1	50
Color 2	#FFFF00
End 2	75
Color 3	#FF0000
End 3	0
Color 4	#FFFF00
End 4	0
Color 5	#FFFF00

Linear Gauge Irregular Scenarios

Th linear gauge shading is working as expected for the correct values. However, there are a few scenarios where the behavior may not be the expected behavior. Some of those cases are documented here to help identify where these issues may come up and help avoid any confusion.

1. The End 2 and End 3 values are smaller than End 1. End 2 is treated as the first point and rest of the end points are ignored.

| Position Max | 100 |
| Position Min | 0 |

▼ Major Ticks

Show Major Ticks	✔
Major Tick Count	5
Major Tick Length	20
Major Tick Color	#000000 ■

▼ Minor Ticks

Show Minor Ticks	✔
Minor Tick Count	4
Minor Tick Length	7
Minor Tick Color	#000000 ■

▼ Sections

Section Count	3 ▼
Color 1	#008000 ■
End 1	50
Color 2	#FFFF00 ■
End 2	25
Color 3	#FF0000 ■
End 3	30
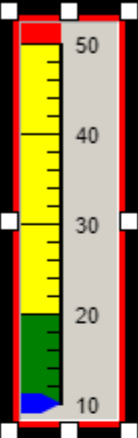
2. End 1 has a value, End 2 is 0 and End 3 has another value. The End 3 shade color is given to the entire component.

Position Max	80
Position Min	10

▼ **Major Ticks**

Show Major Ticks	✔
Major Tick Count	5
Major Tick Length	20
Major Tick Color	#000000 ⬛

▼ **Minor Ticks**

Show Minor Ticks	✔
Minor Tick Count	4
Minor Tick Length	7
Minor Tick Color	#000000 ⬛

▼ **Sections**

Section Count	3 ▼
Color 1	#008000 🟩
End 1	28
Color 2	#FFFF00 🟨
End 2	0
Color 3	#FF0000 🟥
End 3	63
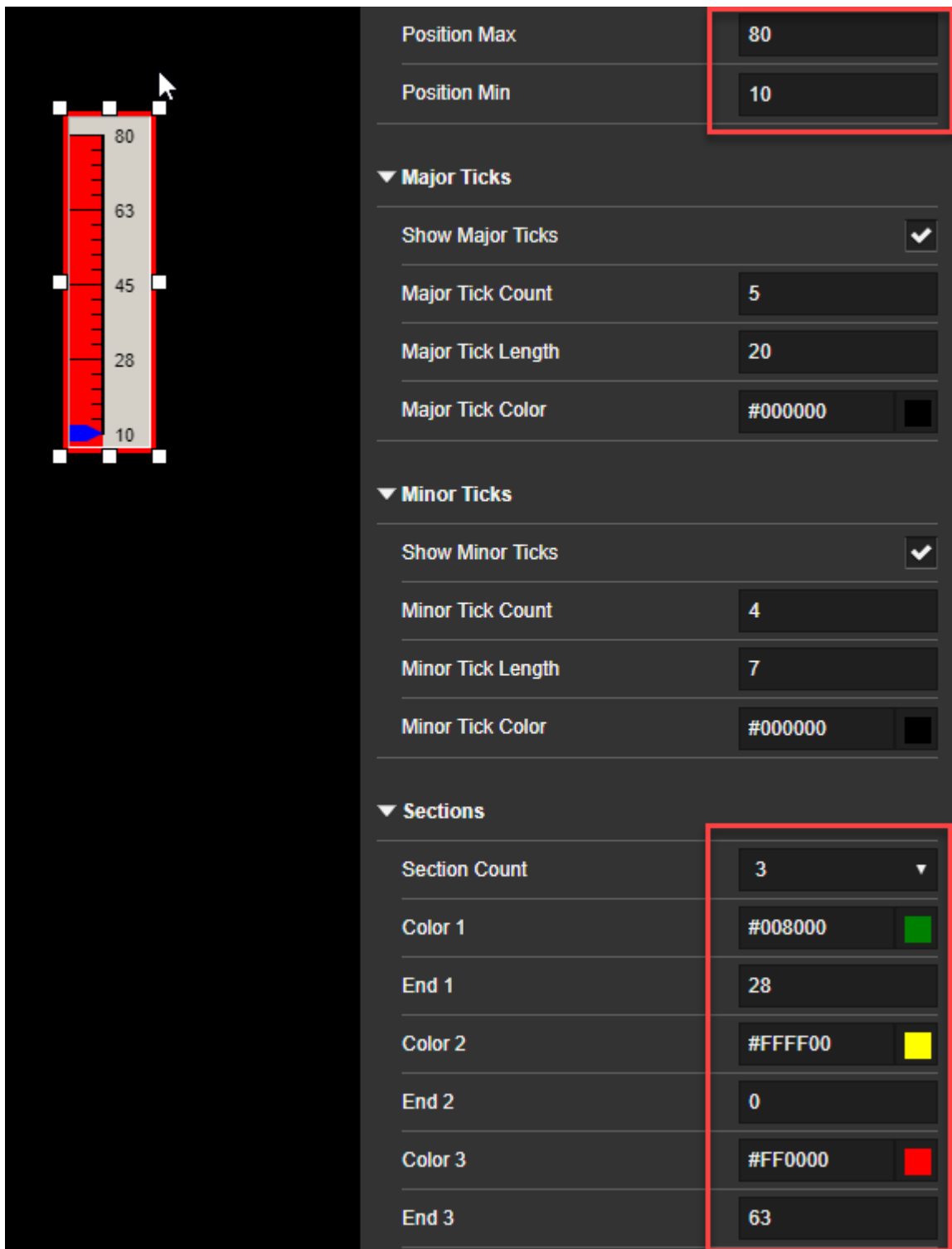
3. The End 3 color is visible outside of the linear scale range. The Position Min is equal to 10 and the Position Max is equal to 50. Set section count to 3. End 1 color will be 10 to 20 and End 2 color will be 20 to 50.

| Position Max | 50 |
| Position Min | 10 |

▼ Major Ticks

Show Major Ticks	✔
Major Tick Count	5
Major Tick Length	20
Major Tick Color	#000000 ■

▼ Minor Ticks

Show Minor Ticks	✔
Minor Tick Count	4
Minor Tick Length	7
Minor Tick Color	#000000 ■

▼ Sections

Section Count	3 ▾
Color 1	#008000 ■
End 1	20
Color 2	#FFFF00 ■
End 2	75
Color 3	#FF0000 ■
End 3	0

4. The Color Shading exceeds the End limit. This scenario occurs when according to the internal scale calculations the End point comes out to be a decimal value. In the UI front, decimal End points are not supported in the Linear scale. So, it appears to be exceeding the End point limit, but in reality it is working as expected.

Position Max	46
Position Min	23

▼ **Major Ticks**

Show Major Ticks	✔
Major Tick Count	5
Major Tick Length	20
Major Tick Color	#000000 ⬛

▼ **Minor Ticks**

Show Minor Ticks	✔
Minor Tick Count	4
Minor Tick Length	7
Minor Tick Color	#000000 ⬛

▼ **Sections**

Section Count	3 ▼
Color 1	#008000 🟩
End 1	29
Color 2	#FFFF00 🟨
End 2	35
Color 3	#FF0000 🟥
End 3	40

Sliding Scale Control

The Sliding Scale is a moving gauge with a linear representation of the data. A single static pointer indicates the position of the moving scale.

Sliding Scale Type

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Sliding Scale	No	Primary use: analog values above and below zero.	No	No	Yes	No

Sliding Scale Icon
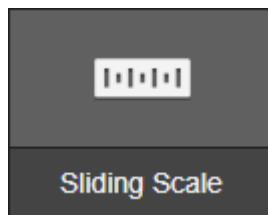
Sliding Scale Default Object
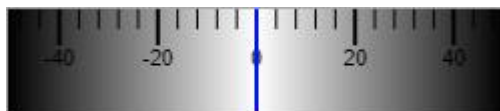
Sliding Scale Properties

Sliding Scale Properties

▼ General

▼ Channel Link   Change Link

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	568
Left	1169
Width	250
Height	55
Z-Index	89

▼ Scale

Orientation	Horizontal ▼
Tick Orientation	Top/Left ▼
Align Style	Side ▼
Scale Span	100
Shadow Enabled	✔
Shadow Color	#000000
Background Color	#FFFFFF
Pointer Width	2
Pointer Color	#0000FF
Border Style	Lowered ▼

▼ Major Ticks

Major Tick Count	5
Major Tick Length	18
Major Tick Width	2
Major Tick Color	#000000

▼ Minor Ticks

Minor Tick Count	4
Minor Tick Length	10
Minor Tick Width	1
Minor Tick Color	#000000

▼ Labels

Tick Label Font Name	Arial ▼
Tick Label Font Size	8
Tick Label Font Color	#000000
Tick Label Precision	0
Tick Label Margin	1.5

Thermometer Control

The Thermometer is a linear gauge that presents a visual representation that looks like a thermometer. It can be displayed in either a horizontal or a vertical format.

Thermometer Type

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Thermometer	No	Primary use: analog values above and below zero.	No	No	Yes	No

Thermometer Icon
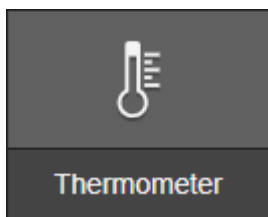
Thermometer Default Object
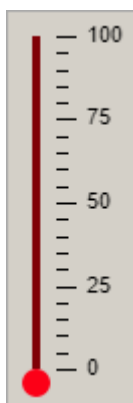
Thermometer Properties

Thermometer Properties

▼ General

▼ Channel Link   Change Link

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	539
Left	1197
Width	65
Height	200
Z-Index	89

▼ Appearance

Orientation	Vertical ▼
Tick Orientation	Bottom/Right ▼
Position Max	100
Position Min	0
Ends Margin	10
Transparent	
Background Color	#D4D0C8
Border Style	Lowered ▼

▼ Indicator

Indicator Width	2
Indicator Bulb Size	7
Indicator Color	#FF0000
Indicator Background Color	#800000
Indicator Style	Bulb ▼

▼ Labels

Show Tick Labels	✔
Tick Label Font	Arial ▼
Tick Label Font Size	8
Tick Label Font Color	#000000
Tick Label Precision	0
Tick Label Margin	5

▼ Major Ticks

Show Major Ticks	✔
Major Tick Count	5
Major Tick Length	10
Major Tick Color	#000000

▼ Minor Ticks

Show Minor Ticks	✔
Minor Tick Count	4
Minor Tick Length	6
Minor Tick Color	#000000

▼ Offset

LED Control

The LED Control, depending on which version was selected, either indicates the state or a value from a selected channel.

LED Icon
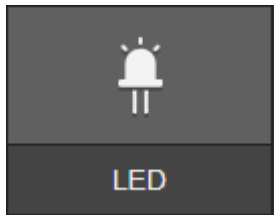
LED Default Object

LED Properties

Led Properties

▼ General

▼ Channel Link
Change Link

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	591
Left	1291
Width	20
Height	20
Z-Index	89

▼ Led Type

LED Type	Value ▼

▼ Led Shapes

LED Shapes	Round ▼

▼ Appearance

Background Color	#D4D0C8
Active Color	#00FF00
Inactive Color	#005500
Transparent	
Bevel Style	Lowered ▼

Rocker Switch Control

Switch objects are interactive and used to initiate an action via a derived digital channel. The Switches must be used with digital channels as they are designed for 0 or non-0 inputs/outputs. The active (non-0) and inactive (0) states have programmable colors, Also, the switch itself will visibly "toggle" between states.

Rocker Switch Type

Switch Object	Action	Special Styling
Rocker Switch	Toggles with top (active) or bottom (inactive) depressed	Selectable active colors and borders.

Rocker Switch Icon
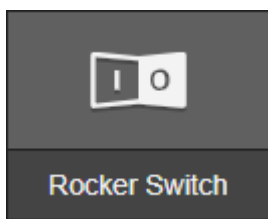
Rocker Switch Default Object

Rocker Switch Properties
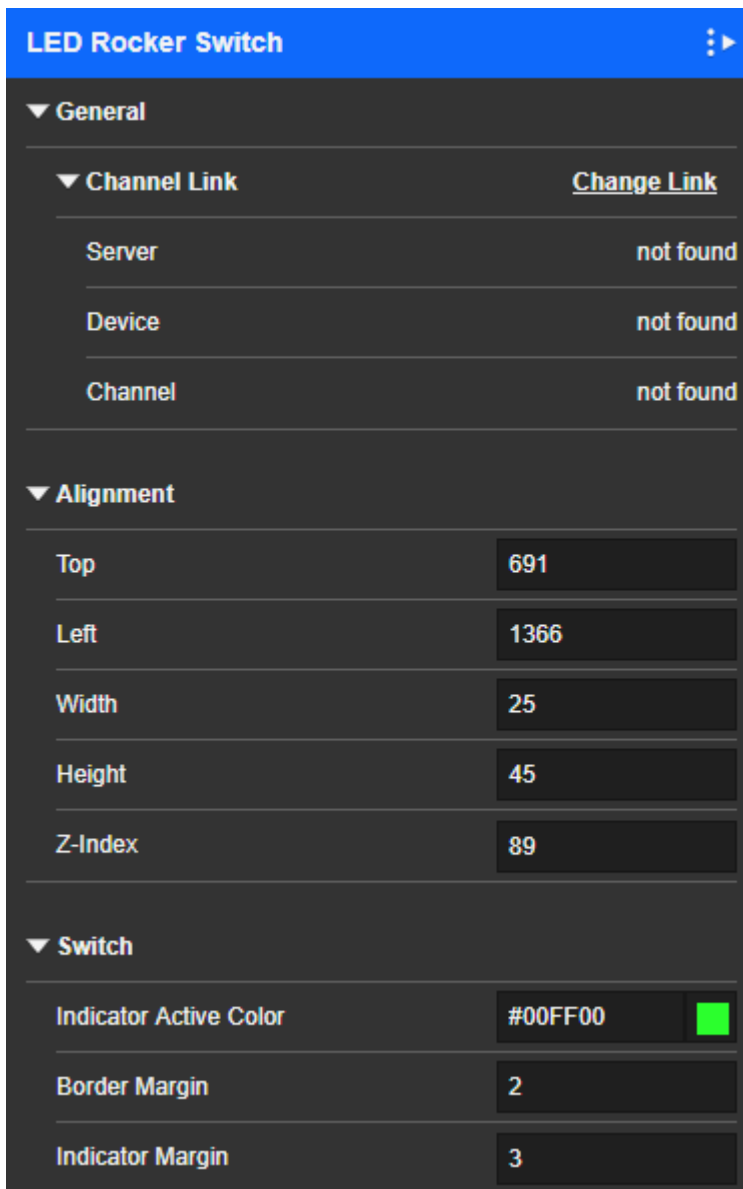
LED Switch Control

Switch objects are interactive and used to initiate an action via a derived digital channel. The Switches must be used with digital channels as they are designed for 0 or non-0 inputs/outputs. The active (non-0) and inactive (0) states have programmable colors, Also, the switch itself will visibly "toggle" between states.

LED Switch Type

Switch Object	Action	Special Styling
LED Switch	Toggles between pressed (active) and normal (inactive).	Selectable active colors, borders, and text label.

LED Switch Icon
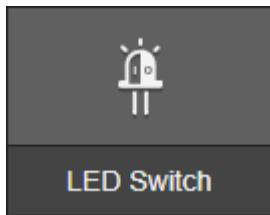
LED Switch Default Object

LED Switch Properties

LED Switch	⋮▶

▼ General

▼ Channel Link   **Change Link**

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	466
Left	1309
Width	28
Height	28
Z-Index	89

▼ LED Switch

Indicator Active Color	#00FF00	🟩
Background Color	#D4D0C8	⬜
Indicator Height	4	
Indicator Alignment	Bottom ▼	

▼ Switch Caption

Caption Text	On
Caption Font Name	Arial ▼
Caption Font Size	8
Caption Font Color	#000000 ⬛

Graph Control

The graph control allows the user to graph specific channels allowing them to be displayed in your WebViews page.

Graph Icon
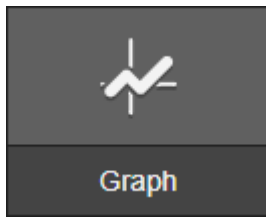
Graph Default Object
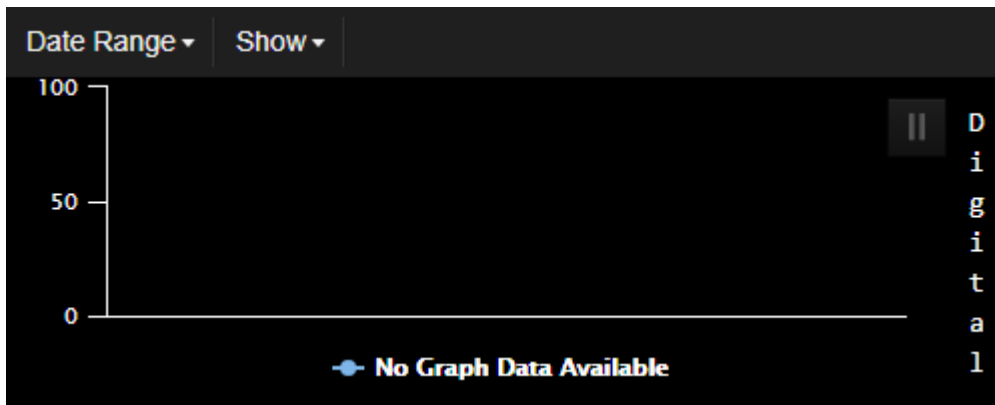
Graph Properties

Graph Properties

▼ Alignment/ Position

Top	295
Left	916
Width	500
Height	200
Z-Index	89

▼ General

Graph Duration	1 day ▼
Graph Title	
Title Font	Arial ▼
Title Size	18px ▼
Title Color	#FFFFFF
Background Color	#000000

▼ Grid Lines

Show Major X	
Show Minor X	
X Color	#FFFFFF
Show Major Y	
Y Color	#FFFFFF

▼ Axis Labels

Custom X Label	
Show X-Axis Title	
X Label Font	Arial ▼
X Label Size	18px ▼
X Label Color	#FFFFFF
Y Label	
Y Label Font	Arial ▼
Y Label Size	18px ▼
Y Label Color	#FFFFFF

▼ Channels

Click the plus button to add a channel

➕

Selected Channel Properties

Select a Channel above to see its Properties

Waveform Control

Some devices, such as the Power Xpert Meter, can provide Waveform data associated with any power event defined as a waveform at the meter itself. This data can be viewed using a linked Waveform object. Each event is presented as a row in tabular format, and users can access the waveform viewer for that event by clicking the appropriate row.

Waveform Icon

Waveform Default Object
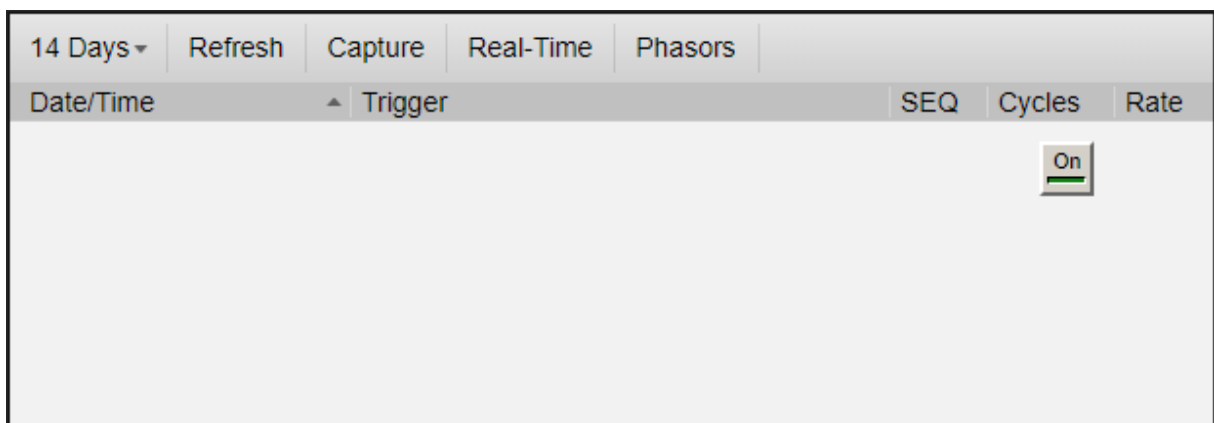
Waveform Properties
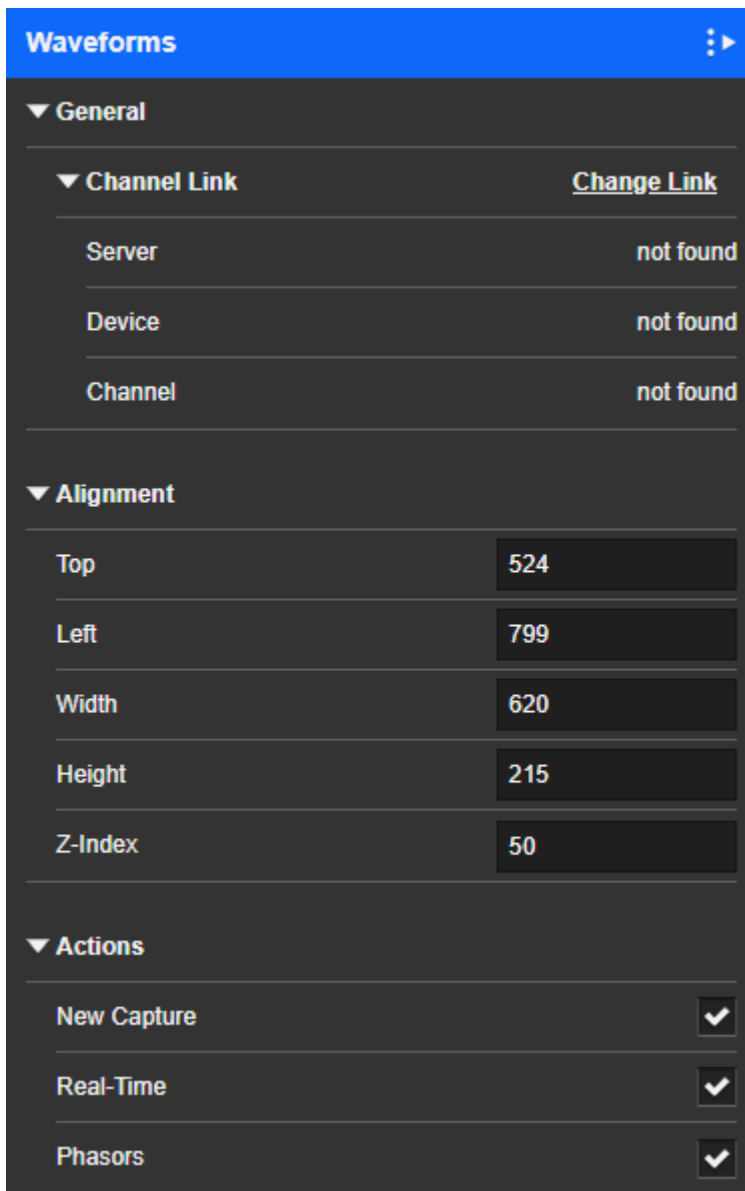
Odometer Control

The Odometer provides a digital display of floating-point values with a tenths indicator by default. You can select the number of digits and the precision after the Odometer is created.

Odometer Type

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Odometer	No	Primary use: accumulating values above zero.	No	No	Yes	No

Odometer Icon
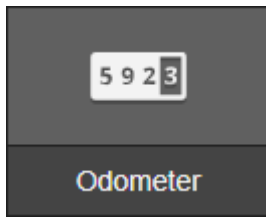
Odometer Default Object

Odometer Properties

Odometer Properties

▼ General

▼ Channel Link   Change Link

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	158
Left	1319
Width	100
Height	24
Z-Index	89

▼ Appearance

Border Style	Lowered ▼
Background Color	#000000 ■
Transparent	☐

▼ Digits

Digit Count	5
Digit BackgroundColor	#000000 ■
Digit FontColor	#FFFFFF ☐
Digit BorderShow	✔
Digit BorderColor	#FFFFFF ☐

▼ Tenths

Show Tenth	✔
Tenths DigitCount	1
Tenths BackgroundColor	#008080 ■
Tenths FontColor	#FFFFFF ☐

Motor Object Control

The Motor objects shows a zero (motor not rotating) or non-zero (motor rotating) value. Motor objects have lots of appearance options for the motor itself, the blades, and even the pipes. Motors are not commonly used in WebViews pages.

Motor Object Type

Object Type	Digital Channel	Analog Channel	Time Channel	Text Channel	Derived Channel	Style
Motor	Primary use	Yes	No	No	Yes	No

Motor Object Icon
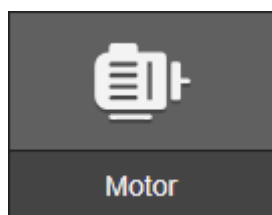
Motor Object Default Object
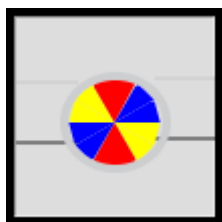
Motor Object Properties

Motor Properties

▼ General

▼ Channel Link   Change Link

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	218
Left	1319
Width	100
Height	100
Z-Index	89

▼ Appearance

Pipe Color	#DDDDDD	
Blade Color1	#FF0000	
Blade Color2	#0000FF	
Blade Color3	#FFFF00	
Background Color	#DDDDDD	
Border Style	Lowered ▼	

▼ Motor Orientation

Select Orientation	Horizontal ▼

▼ Base

Show	
Style	Trapeziod ▼

WebViews Text and Graphics

This chapter describes each of the Text and Graphics Objects available for use in WebViews Editor. You can access these controls while in Edit mode. When WebViews is in edit mode, you'll see these controls on the right side of your screen.

- Textbox Control
- Hyperlink Control
- Line/Rectangle Control
- Value Mapped Line Control
- Multiline Control
- iFrame Control
- Static Image Control
- Animated Images Control
- Value Mapped Image Control
- Checkbox Control
- Linking Objects

Text and Graphics

Textbox

Hyperlink

Line/Rectangle

Value-Mapped Line

Multiline

iFrame

Static Image

Animated Image

Value-Mapped Image

Checkbox
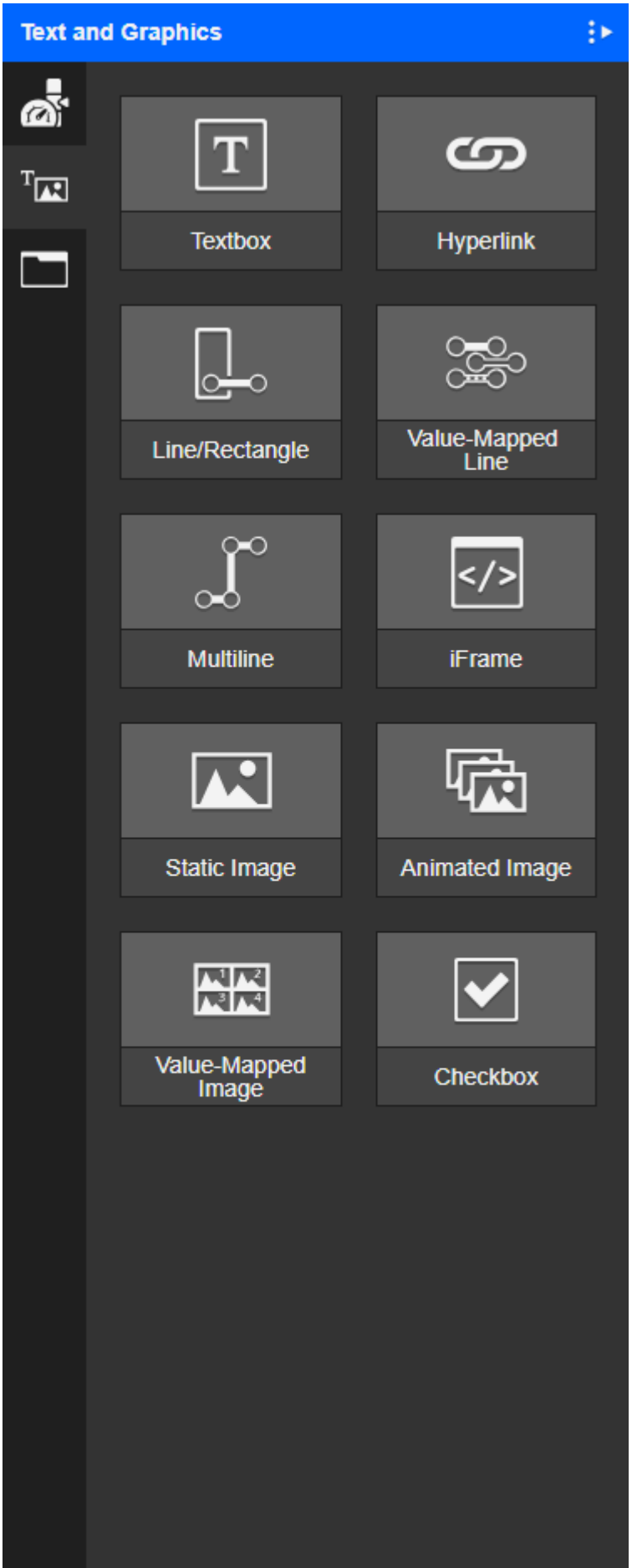
Textbox Control

Text objects can be used to overlay other objects (using the Z-order) or can be placed beside objects.
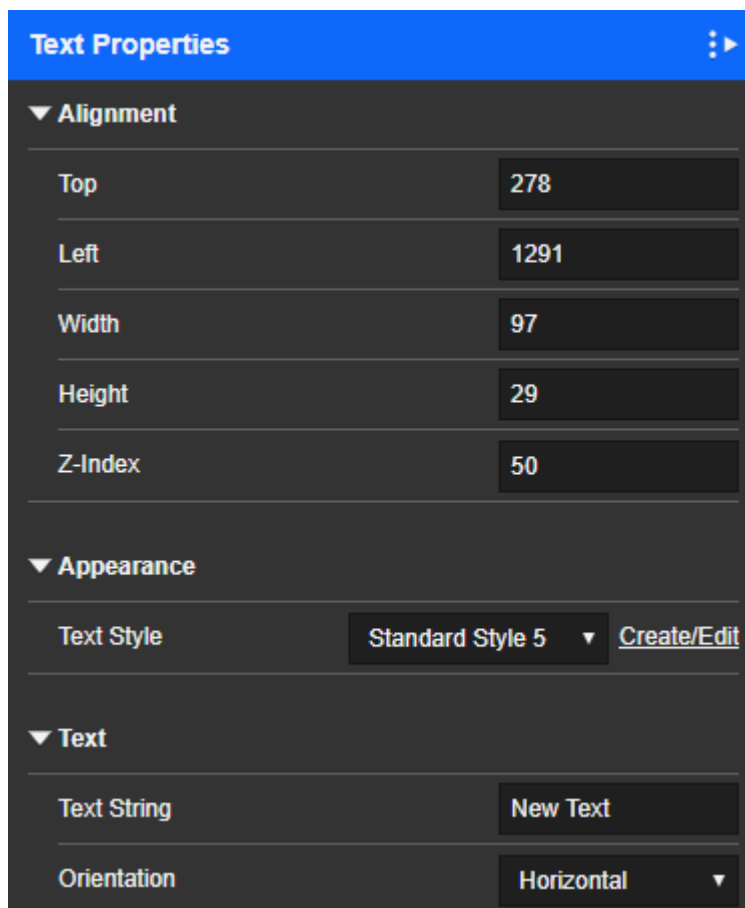
Textbox Icon
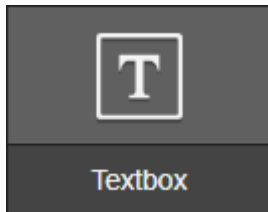
Textbox Default Object

New Text

Textbox Properties

Hyperlink Control

To edit the label and the URL, double click the hyperlink object to display the property editor. You may leave the label blank. Hyperlinks by default will open the page pointed to in the URL field in the same browser window. Optionally, you can have the link opened in a new window by changing the "Open In" property. When using a separate window, you can specify the window size.

This object provides text or a button on a web page that can link to any other accessible web page. These pages can either open in a new browser window or replace the WebViews page and load the target into the current browser page. A Hyperlink object has no link until you set its parameters through the Properties dialog box.

You can set the following parameters:

The text for the hyperlink itself.
- The target URL.
- Whether the page should open in the same or a new browser window.
- If the page opens in a new browser window, the height and width of the window.
- The z-index of the Hyperlink object on the WebViews page.
- The style (visual format) of the Hyperlink object. By default, there are four available styles for Hyperlink objects; however, you can add your own.

To create a Hyperlink object:

- Press Ctrl+H or right-click on the page and select Hyperlink from the Objects menu.

⊘ You can do almost anything with a Hyperlink object that you can do with an <a href> element in an HTML page. For example, if you specify the mailto: protocol and provide an email address as part of that link, clicking the Hyperlink object will launch the default email program with an email preloaded with that address.

Hyperlink Icon
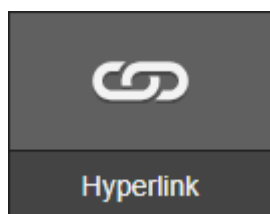
Hyperlink Default Object

Hyperlink Properties

Line/Rectangle Control

Square/Rectangle objects can show the state of connected channels and can have Text objects placed over them (using the Z-order).

You can create a single line in Edit mode on the Text and Graphics tab. Double-click Line/Rectangle to place a line segment. You can stretch a line both vertically and horizontally to create longer or shorter lines or rectangles.

Once drawn, you can rotate a line 90º by changing the Line Orientation from Horizontal to Vertical. You can change the color and opacity from the sidebar. The color is used only if the line isn't linked to a channel. When linked to a channel, the line color reflects the color corresponding to the channel state.

Line/Rectangle Icon
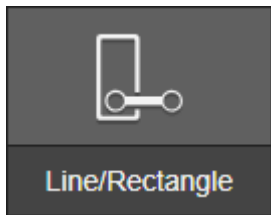
Line/Rectangle Default Object

Line/RectangleProperties

Value Mapped Line Control

A Mapped Bus (line) object is similar to the Bus (Line), but can be set to indicate multiple values, by colors that you assign, from a selected Channel. The rules for Normal mappings are:

- Each object can have its own individual color mapping.
- You can add as many mappings per object as you like.
- A single color can have multiple associated values. For example, yellow might indicate a value of 4 or 5. However, this must be an exact match, and will not indicate a value between 4 and 5. You'll need to use Advanced mapping to map to a range of values.
- Mapped values can be integer numbers, floating point numbers, or text values (strings).
- Text values are not case sensitive
- Each text value must be enclosed in single or double quotes.

Value Mapped Line Icon
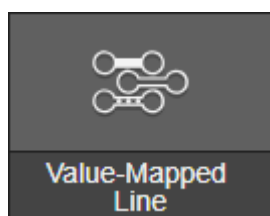
Value Mapped Line Default Object

Value Mapped Line Properties

Line/Rectangle Properties

▼ General

▼ Channel Link   Change Link

Server   not found

Device   not found

Channel   not found

▼ Alignment

Top	410
Left	1363
Width	50
Height	4
Z-Index	50

▼ Line

Orientation	Horizontal ▼
Opacity	1

▼ Mapping

This section allows you to change the appearance of the object based on the value of its linked channel. Each rule specifies a comma seperated list of values and a color to use for those values. Values can be individual numbers (e.g. 1, 2.5, 3) or quoted strings (e.g. "open", "closed"), or "*" for any other value.

⊕ Add Rule

▼ Rule 1 (#0F90ED)   ✖

Values	
Color	#0F90ED ■

Multiline Control

The Multiline Object provides a handy way to draw multiple line segments in which each new segment automatically starts at the end point of the previously drawn segment. Segments are constrained to 90° (right angles).

To draw a multi-segment line:

1. Select **Multi-Line** from the **Objects** menu or press the "m" key.
2. Click at the start point for the first line segment.
3. Click at the end point for the first line segment (the next line segment will use this as its start point).
4. Click at the end point for the next line segment. Remember that the line is constrained to right angles so the next segment may not end where you clicked.
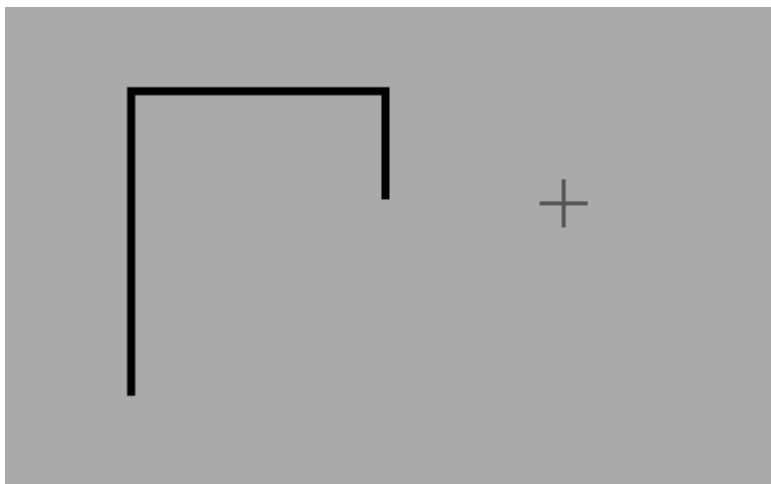
5. Double-click to designate the last end point and stop line segment drawing.
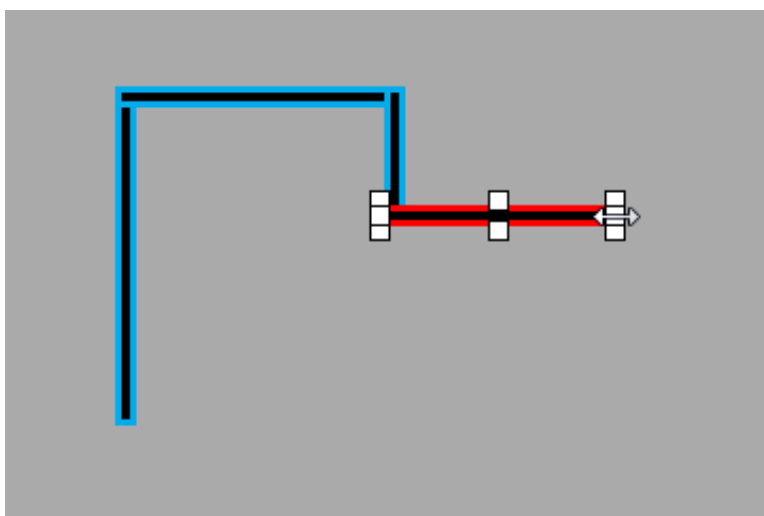
When you double-click, all line segments are selected and the last segment drawn has focus. To reposition the entire group, drag the segment with focus (it has the handles). After you click away from the group of lines, you can select each segment individually or select the

group by dragging a selection box.

Multiline Icon

> ⓘ Resizing or stretching multiple lines can lead to unexpected results

iFrame Control

Frame objects provide the functionality of the HTML 4.0 IFrame element in WebViews pages. You can use IFrame objects to embed other web pages directly in a WebViews pages. For example, you can embed frames that show streaming video from web cams throughout your facility or that provide access to web-hosted forms or email systems within your intranet. Any custom HTML you create and serve via a web server can be referenced and embedded in a WebViews page with this object.

> ⊘ Do not point an IFrame object to any Foreseer page. You should link IFrame objects only to external web pages.

For more information about IFrame elements in HTML, see:

http://www.w3.org/TR/REC-html40/present/frames.html#h-16.5

As with Hyperlink objects, IFrame objects are first placed and sized on the WebViews page, and then configured using the Properties dialog box.

iFrame Icon
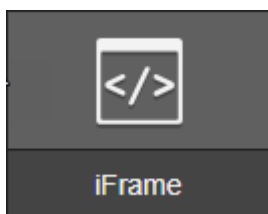
iFrame Properties
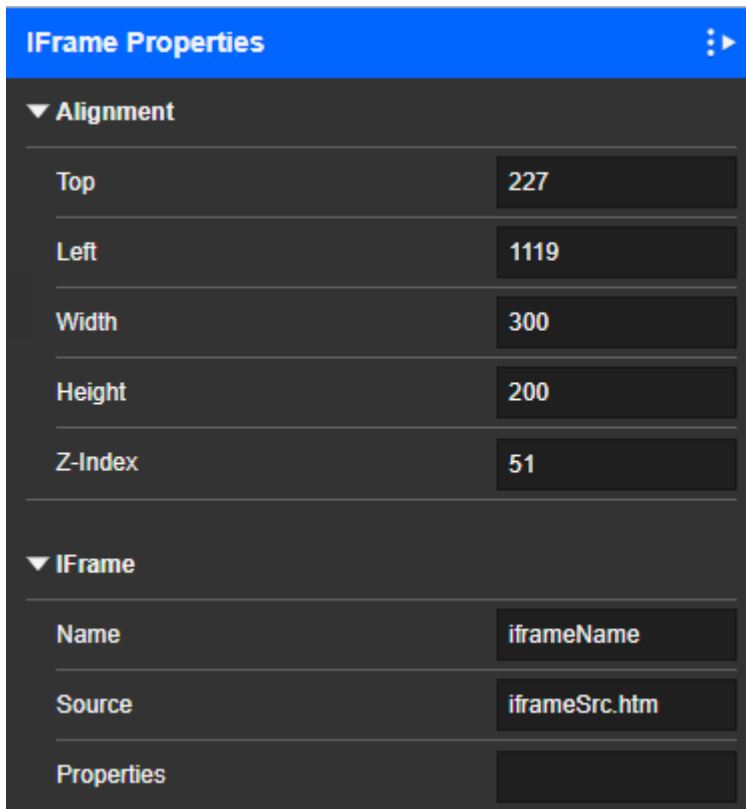
Static Image Control

A dialog will be shown for user to select a static image. If a static image is focused, it will be replaced. Otherwise, a new static image will be added to the page.

Static Image Icon
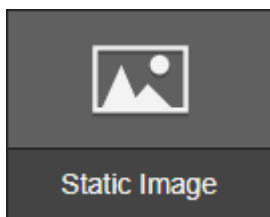
Static Image Dialog Selection Object
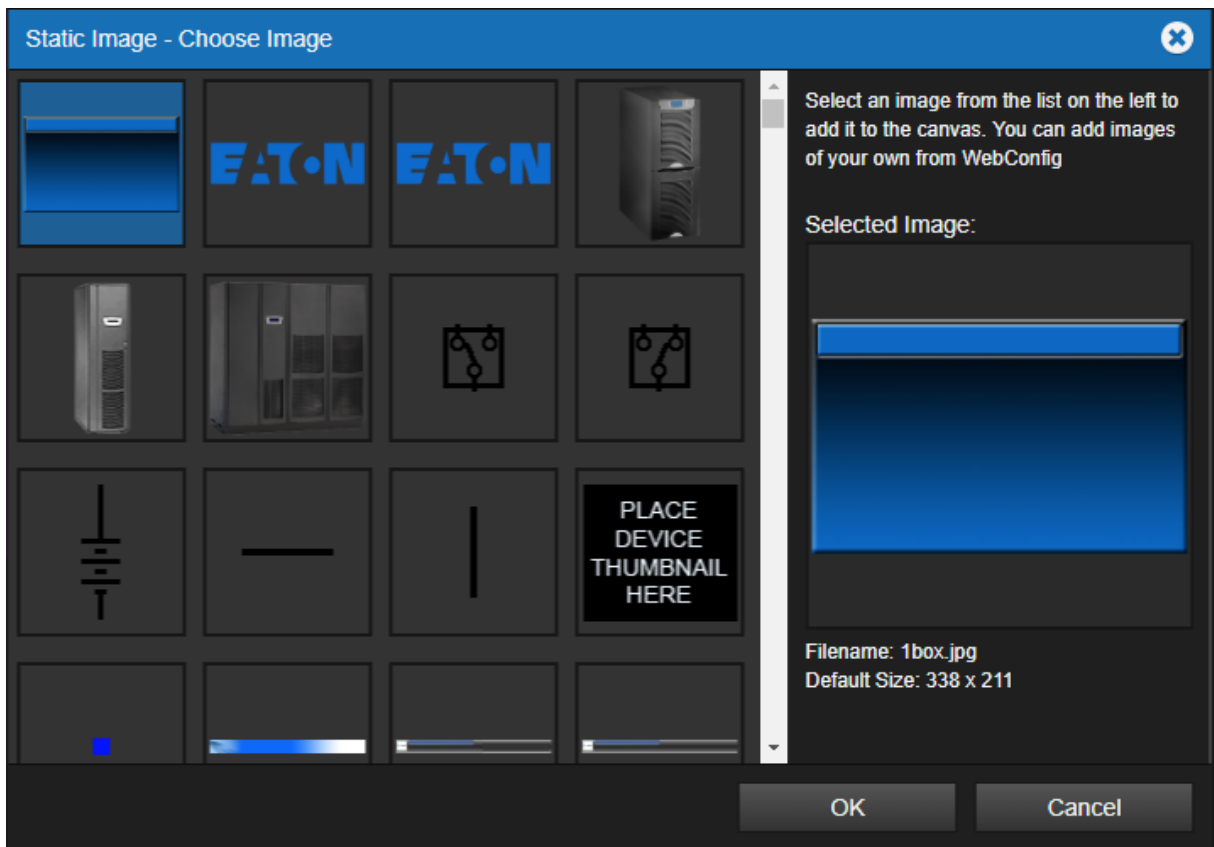
Static Image Properties
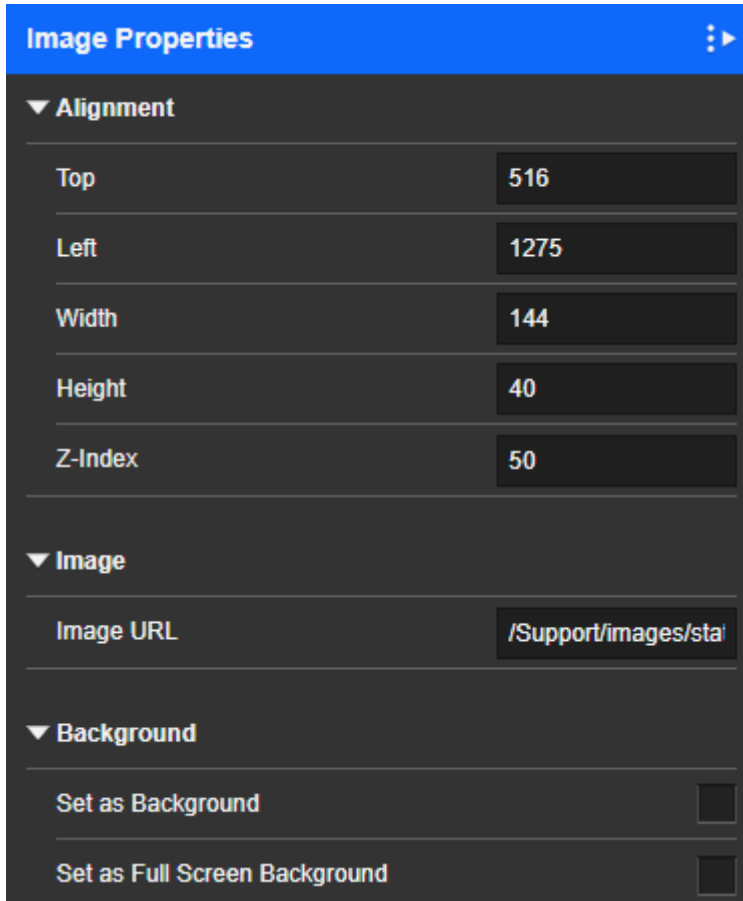
Animated Images Control

Animated images provide one of a set of three different static images, depending on the state of the linked channel. These are designed to work with digital channels, and the images correspond to true (non-zero), false (zero), and no data. You select the image set that you want from a scrollable list.

Animated Image Icon
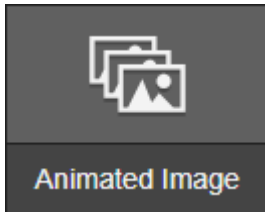
Animated Image Dialog Selection Object
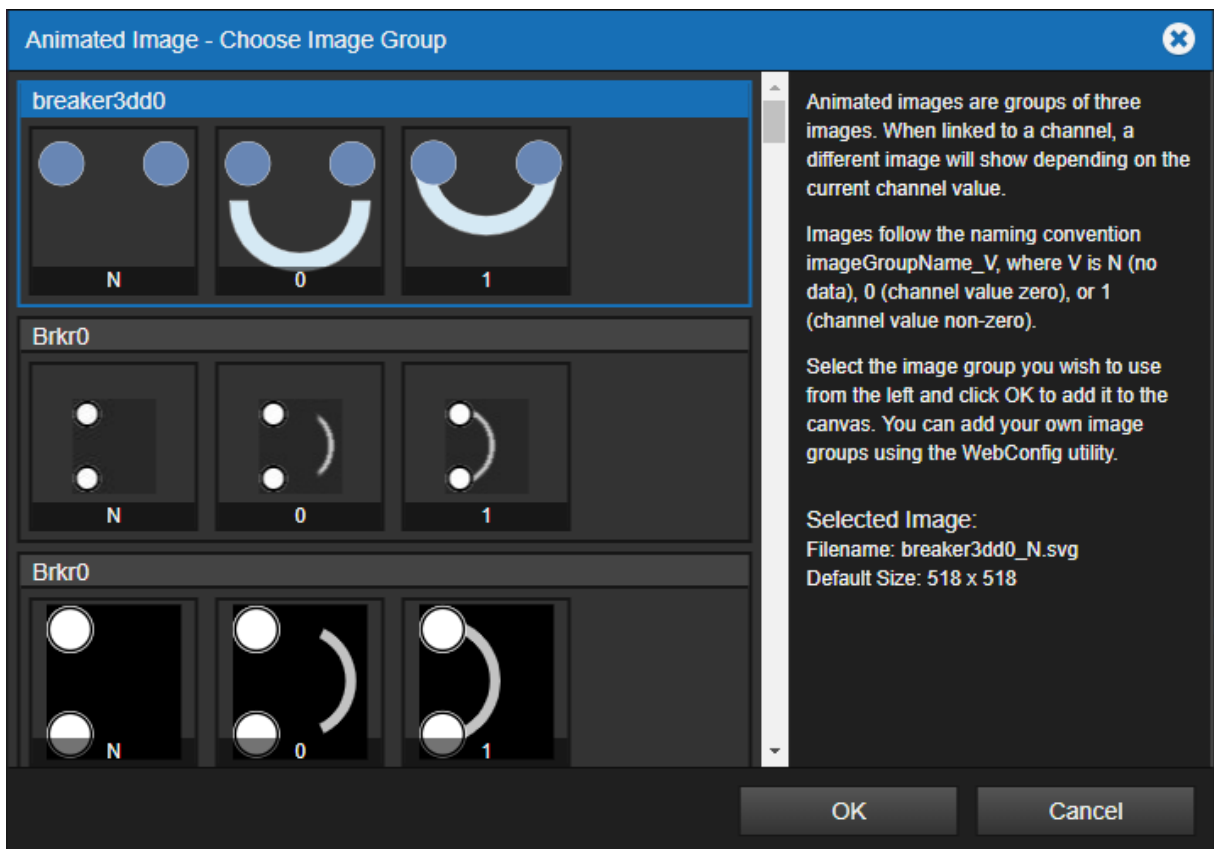
Animated Image Properties
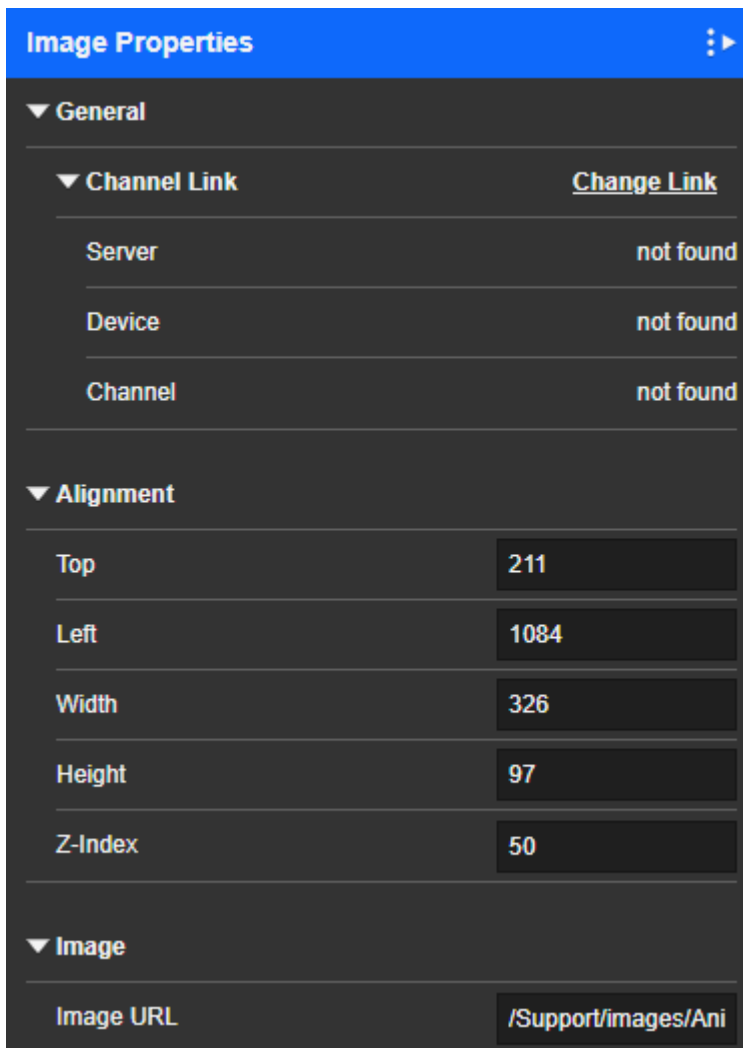
Value Mapped Image Control

Value Mapped Images are similar to Animated Images, but the choice of which of the three images is displayed depends on rules that match a set of numeric values or strings. Value Mapped Lines have rules that specify the line color depending on the value of the linked channel. Like standard Lines, you can set the opacity and style for Value Mapped Lines.

The numeric values in the rules are exact matches; that is, you cannot specify greater than or less than. You can specify floating point numeric values. You can also specify text strings to match. Each string must be enclosed in double quotes. For example: "closed" or "open."

Value Mapped Images can only have up to 10 images in a set, and therefore 10 corresponding rules. Value Mapped Lines can have up to 10 rules and color variations.

> ⊘ Value Mapped Images and Lines work well with derived channels. You can use the derived channels arithmetic features to convert ranges of analog values into the fixed values required.

Value Mapped Image Icon
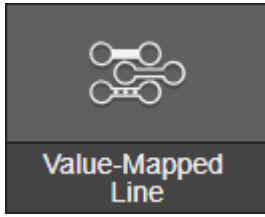
Value-Mapped Line

Value Mapped Image Properties

Image Properties

▼ General

  ▼ Channel Link   **Change Link**

Server	not found
Device	not found
Channel	not found

▼ Alignment

Top	605
Left	295
Width	408
Height	124
Z-Index	50

▼ Image

Image URL	/Support/images/Ani

▼ Mapping

This section allows you to change the appearance of the object based on the value of its linked channel. Each rule specifies a comma seperated list of values and a color to use for those values. Values can be individual numbers (e.g. 1, 2.5, 3) or quoted strings (e.g. "open", "closed"), or "*" for any other value.

▼ Rule 1 (breaker3dd0_0.svg)

Values

▼ Rule 2 (breaker3dd0_1.svg)

Values

Checkbox Control

Check Box objects are used in conjunction with Graphs. When you click the Graph link, it launches the Graphing window and graphs only the Channels from Channel objects with selected Check Box objects.

To create Check Boxes for Channel objects:

1. In edit mode, select all Channel objects that should have check boxes.
2. Press x. Linked Check Box objects are created to the right of each Channel object.

Checkbox Icon
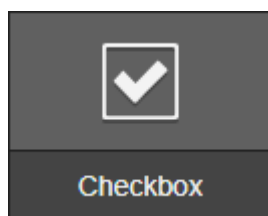
Checkbox Default Object

Checkbox Properties
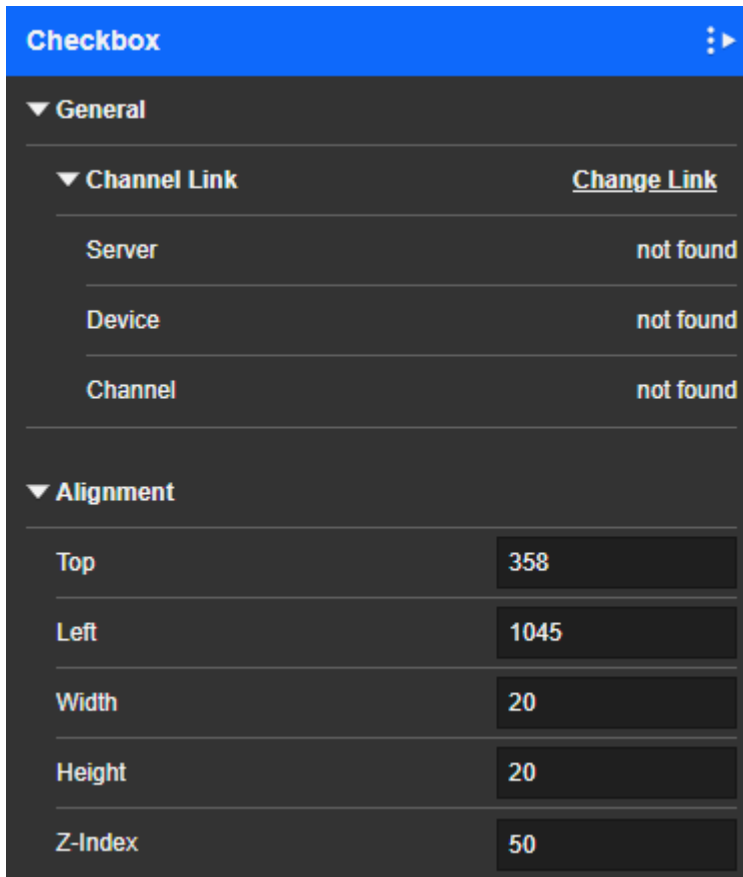
Linking Objects

Foreseer provides three ways to add links to your WebViews page:

Folder Objects	Typical folder objects.	Use these to link to any existing Folder in Foreseer. You can: • Select the target folder from a drop down list. • Provide a descriptive label for the object. • Choose the style for the object. Styles specifically for use with Folder Objects are: (fill in when style map available). Folders always open in the current tab. Folder colors reflect alarm states from channels on the target WebViews page.	
Hyperlink Objects	Typical hyperlink object.	Use these to link to intranet or Internet resources. You can: • Specify the target URL. • Provide a descriptive label for the object. • Specify if the URL should open	

		in the current tab or in a new tab. • Choose the style for the object. Styles specifically for use with Folder Objects are: (fill in when style map available).	
IFrame Objects	IFrame object showing a web cam.	Use these to embed a frame in the WebViews page with a target URL. Typically this is used to provide a view from a streaming video source, such as a camera in your facility. You can: • Specify the URL for the streaming video source. • Provide a descriptive name for the object. • Set one of the following iFrame properties (other iFrame HTML properties are not supported). Never use double- quotes, as the attribute value will not be retained. Single quotes are not required around the arguments. • margin width • margin height • scrolling • frame border • The style for the object. Styles specifically for use with Folder Objects are: (fill in when style map available).	

> ⓘ Never reference a WebViews page or any Foreseer page with an IFrame object.

WebViews Channels and Folders

This chapter describes each of the Channels and Folders Objects available for use in WebViews Editor. You can access these controls while in Edit mode. When WebViews is in edit mode, you'll see these controls on the right side of your screen.

- Channel Control
- All Channels Control
- Folder Control
- All Folders Control
- All Objects Control

Channels and Folders

Channel

All Channels

Folder

All Folders

All Objects
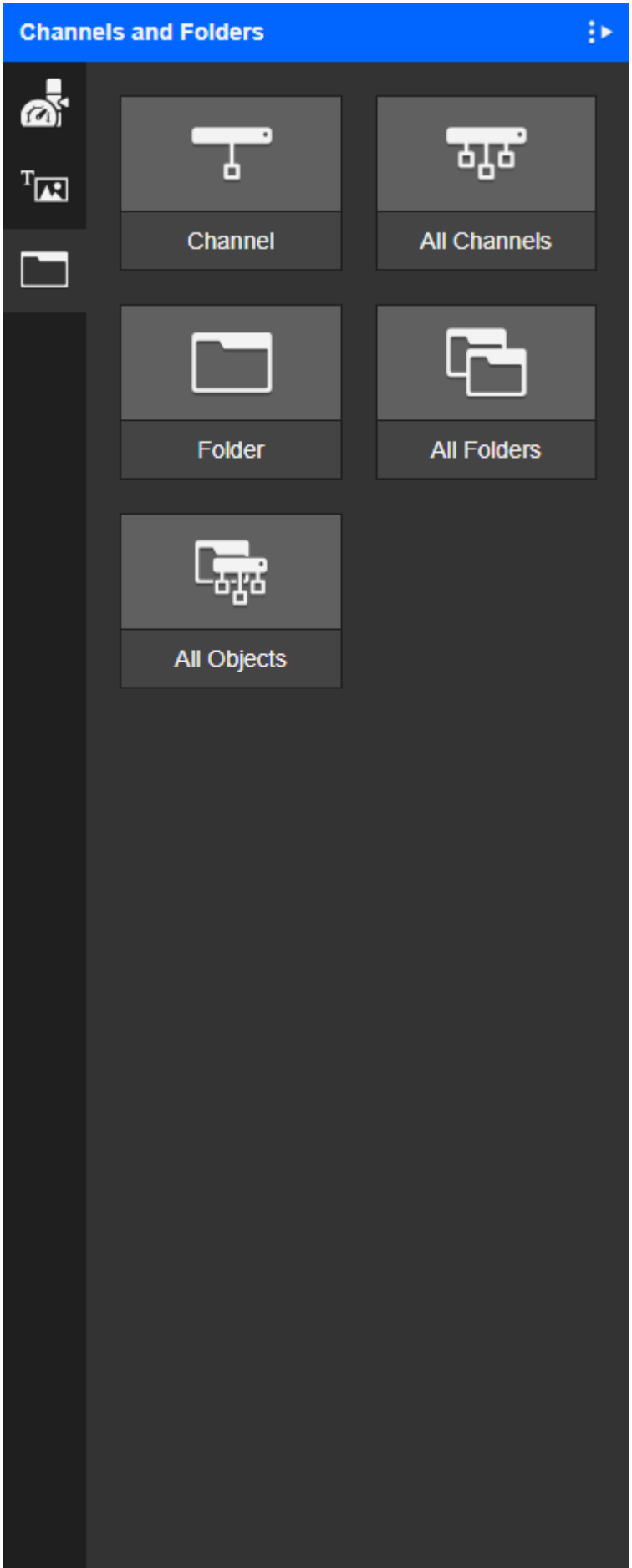
Channel Control

Create a Channel object. If a Channel object is focused, pressing C repeatedly will cycle through available Channels. The Channel object will be created where the cursor is positioned. If you will be cycling through Channels to find a particular Channel, you may want to resize the Channel object first to make sure that it is large enough to hold the longest Channel name.

Channel Icon
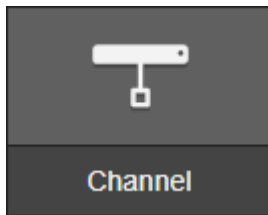
Channel Default Object

Channel Properties

All Channels Control

The All Channels command will create a Channel object for all Channels that are contained in this folder. The Channel objects will be created in columns starting at the upper left of the window.

> ⚠ Use this with care. Depending on the number of channels assigned to that WebViews page, this command can create more Channel objects than the page can contain (some channel objects spill over into the gray area). Should this occur, cancel edits and do not save.

All Channels Icon
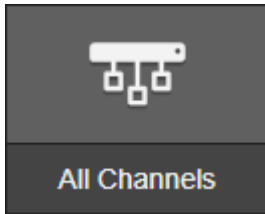
Folder Control

Create a Folder object. If a folder is focused, cycle through available folders. If you will be cycling through folders to find a particular folder, you may want to resize the folder object first to make sure that it is large enough to hold the longest folder name.

Folder Icon
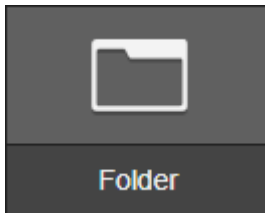
Folder Default Object

Folder Properties

All Folders Control

The All Folders command will create a folder object for all sub-folders that are contained in this folder. The folders will be created in a column starting at the upper left of the window.

All Folders Icon
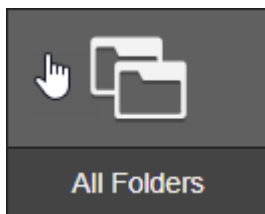
All Folders Default Object
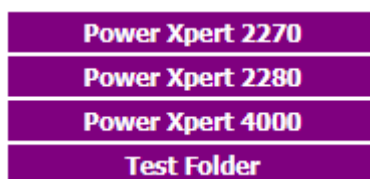
All Folders Properties

Multiple Selection ⋮

▼ General

▼ Channel Link   Change Link

Server   no linkable objs

Device   no linkable objs

Channel   no linkable objs

▼ Appearance

Folder Style   Standard Style 0 ▼   Create/Edit

▼ Layout

⊫ Horizontal Align Left

⊒ Horizontal Align Right

⊪ Horizontal Align Center

⊤ Vertical Align Top

⊥ Vertical Align Bottom

⊥ Vertical Align Center

▼ Position

⊞ Distribute Horizontal

⊞ Distribute Vertical

⊔ Stack Horizontal

⊟ Stack Vertical
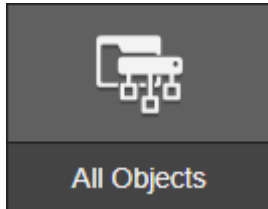
▼ Sizing

⟷ Equal Width
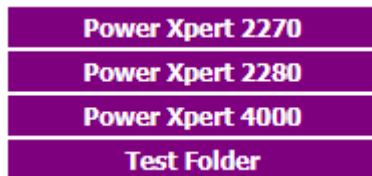
↕ Equal Height

✥ Equal Size

All Objects Control

The All Objects command will create all objects (Channel objects, Folder objects, and Folder Link objects) that are contained in this folder. The objects will be created in columns starting at the upper left of the window.

All Objects Icon

All Objects Default Object

All Objects Properties

Multiple Selection

▼ General

  ▼ Channel Link   Change Link

    Server   no linkable objs

    Device   no linkable objs

    Channel   no linkable objs

▼ Appearance

    Folder Style   Standard Style 0 ▼   Create/Edit

▼ Layout

⊟	Horizontal Align Left
⊟	Horizontal Align Right
⊟	Horizontal Align Center
⊤	Vertical Align Top
⊥	Vertical Align Bottom
⊟	Vertical Align Center

▼ Position

⊞	Distribute Horizontal
⊞	Distribute Vertical
⊞	Stack Horizontal
⊟	Stack Vertical

▼ Sizing

⊟	Equal Width
⊟	Equal Height
⊕	Equal Size

Accelerator Keys and Mouse Gestures

The following accelerator keys and mouse gestures work for the WebViews Editor's in edit mode.

Basic

Category	Functions
Ctrl+E	Enters edit mode
Ctrl+S	Saves the layout.
F5	Exits edit mode and discards all changes since last save. The F5 button is the browser Refresh command which causes the current page to be reloaded.
F6	Enters edit mode or, if in edit mode, saves changes and exits edit mode.

Object Selection

Accelerator	Function
Click	Selects the clicked object and deselects all other selected objects. The selected object will also be the focused object. Clicking outside of any object will deselect all objects. The Background object cannot be selected by any method. A selected object is indicated by a highlight border color of dark blue or orange. Blue indicates selected and orange indicates focused. A focused object is always the last object selected and has special meaning for certain commands. A focused object is always the last object selected and has special meaning for certain commands. If only one object is selected, then it is by default the focused object. The focused object is generally the object a command applies to such as "make same size as" or "align to top of." When a layer is active, all selection commands will act as if only those objects exist; e.g., Ctrl-A for Select All Objects will only select the objects that fall within the defined layer. When new objects are created, their Z-index will be set to the middle of the active layer and the Z-Index Front and Back commands set the selected objects to the front or back of the active layer.
Ctrl+Click	If the object is not selected, it will be added to the current list of selected objects and will become the focused object (the last selected object rule). If the object is selected, but is not the focused object, then this object will

	become the focused object and the previous focused object will become a normal selected object. If the object is the focused object, it will be deselected.
Esc	Deselects a selected or focused object.
Space Bar	If objects are selected, all objects will be deselected. If any other objects are selected, this object will be added to the group.
Tab	Select the next (previous if Shift+Tab) object in the document. If no object is selected, the selection will start from the beginning of the document. The document order is the order that objects were created.
Ctrl+A	Selects all objects.
Ctrl+Drag	When starting outside of any selected objects, selects objects that the cursor passes over. The drag must start outside of an object and proceed through the object (don't move the mouse too fast). You can Drag in any arbitrary pattern included doubling back. You can extend selections by Ctrl+Dragging to add new objects. Ctrl+Dragging any selected object of a group of selected objects moves the entire group of objects.
Drag	When starting outside of any selected objects, this will first deselect all objects and then create a bounding box that will select all objects that are completely contained within its boundary. If the mouse button is released outside of the browser window, the bounding box will be invalidated and you will have to start it over. Dragging a focused object will move the object (or group of objects if multiple objects are selected). If multiple objects are selected, be careful to drag the focused object. If you attempt to drag one of the selected objects in the group you are in fact just doing a select of that individual object which deselects all other objects. You can Drag a group of selected objects from a non-focused object by using Ctrl+Drag.

Copy and Paste

Accelerator	Function
Ctrl+C	Copy: Copies the selected objects. This only works for copying and pasting objects in the current WebViews page.
Ctrl+V	Paste: Pastes the copied objects 10 pixels to the right and 10 pixels down from their original position. For ActiveX controls, the new object is pasted 30 pixels down and to the right. This only works in the current WebViews page.
Alt+Ctrl+C	Copy: Copies the selected objects. This works for copying and pasting objects in any WebViews page.
Alt+Ctrl+V	Multi-Page Paste: Pastes the copied objects 10 pixels to the right and 10 pixels down from their original position. For ActiveX controls, the new object is pasted 30 pixels down and to the right. The objects can be pasted in any WebViews page

Layers and Z-Index

Accelerator	Function
Shift+layer+ number	All objects in a layer can be hidden by typing Shift+layer-number. This command is a toggle so to show the objects, type the same command again. You can hide as many layers as you would like. Unlike the selection layers, the hiding layers do not need to be contiguous. To show all objects, type Shift+0.
F8	Selected objects can be moved to different layers by using the Switch Layer command from the menu or the F8 shortcut. When moving objects to a new layer, their relative position will remain the same in the new layer (i.e., if the selected object has a Z-index of 46 and it is moved to layer 2 it will now have a Z-index of 26).

Object Creation and Manipulation

Accelerator	Function
C	Create a Channel object. If a Channel object is focused, pressing C repeatedly will cycle through available Channels. The Channel object will be created where the cursor is positioned. If you will be cycling through Channels to find a particular Channel, you may want to resize the Channel object first to make sure that it is large enough to hold the longest Channel name.
F9	The All Channels command will create a Channel object for all Channels that are contained in this folder. The Channel objects will be created in columns starting at the upper left of the window. Caution: use this with care. Depending on the number of channels assigned to that WebViews page, this command can create more Channel objects than the page can contain (some channel objects spill over into the gray area). Should this occur, cancel edits and do not save.
F	Create a Folder object. If a folder is focused, cycle through available folders. If you will be cycling through folders to find a particular folder, you may want to resize the folder object first to make sure that it is large enough to hold the longest folder name.
F10	The All Folders command will create a folder object for all sub-folders that are contained in this folder. The folders will be created in a column starting at the upper left of the window.
F2	The All Objects command will create all objects (Channel objects, Folder objects, and Folder Link objects) that are contained in this folder. The objects will be created in columns starting at the upper left of the window.
Date and Time	The Date and Time object. You can set the Date and Time style, which is global and affects all Date and Time objects throughout the layout, with Switch Styles.
Breadcrumb s	The Breadcrumbs command is available from the Layout menu only. By default the breadcrumbs line will display the crumbs as the URL path to the folder that is currently being displayed. To change the crumbs, you may

	enter specific breadcrumbs text for each folder on the server from the folder properties available at the server. You can set the Breadcrumbs style, which is global and affects all Breadcrumbs throughout the layout, with Switch Styles.
Ctrl+L	Create a Horizontal Line. If a Line is focused the line orientation will switch between horizontal and vertical depending on the current orientation.
Ctrl+Q	Create a Square/Rectangle object. If the object is focused the its orientation will switch between horizontal and vertical depending on the current orientation. A Square/Rectangle object that is linked to a Channel will use the color assignments set by the One Line Colors command from the Short-cut Menu. If the object is not linked to a Channel, the line can be set to any color using the property editor. Opacity is supported for both linked and unlinked lines and can be set to any value between 0.00 (fully transparent) and 1.00 (fully opaque) in 0.01 steps.
Ctrl+I, Ctrl+M	Create a Static Image. A dialog will be shown for user to select a static image. If a static image is focused, it will be replaced. Otherwise, a new static image will be added to the page.
Ctrl+B, Ctrl+N	Create an Animated Image. A dialog will be shown for the user to select an animated image from the palette. If an animated image is focused, it will be replaced. Otherwise, a new animated image will be added to the page. For animated images (e.g. a breaker), orientations may refer to what edge the poles of the breaker are on (top, bottom, left or right).
Ctrl+Alt+N	Create a Value-Mapped Image. A Value-Mapped Image object that is linked to an Channel will use the color assignments set by the Mapping dialog box accessible from the object's properties dialog box.
Ctrl+T	Create a Text object. To edit the text, double-click inside the text object. When you are done editing the text, click outside the object. A text object may be flipped to/from horizontal/vertical by using the Flip Text Horiz/Vert command, which is available from the Objects shortcut menu. If you need to edit a vertical text object, it's easier to flip it to horizontal, do the editing, and then flip it back to vertical.
Alt+W	Create a Flash animation movie object. A dialog will be shown for user to select a flash animation movie. If a flash movie is focused, the focused one will be replaced. Otherwise, a new flash animation movie will be added to the page
Ctrl+H	Create a Hyperlink. To edit the label and the URL, double click the hyperlink object to display the property editor. You may leave the label blank. Hyperlinks by default will open the page pointed to in the URL field in the same browser window. Optionally, you can have the link opened in a new window by changing the "Open In" property. When using a separate window, you can specify the window size.
Ctrl+P	Attaches a background image to the page. A dialog will be shown for user to select a background image. If a background image has already been attached to the page, it will be replaced. Otherwise, the new background image will be attached to the page. The Remove Background command is only available through the Objects shortcut menu and will remove a background image from the page

Alt+Y	Switch Style: Changes the style of the selected object. This command is only supported for Channel, Folder, Folder Link, Hyperlink, Line, Text, Breadcrumbs, and Date/Time objects. The Style Selection dialog box containing a list of standard styles for the selected object will be displayed. Select the desired style or customize an existing style. If customizing a style, a name must be entered for this new style.
Y	Apply Style: Applies the style of the focused object to all of the selected objects.
Ctrl+Z	Undo: Reverses the effects of editing operations. This is a multiple level Undo and the Undo buffer can grow quite large after a long editing session. Periodically, you should save your work and exit and re-enter edit mode which will release the memory resources that the Undo buffers have consumed. When using the ActiveX controls, Undo will only restore the size and position information of the control.
Ctrl+Y	Redo: Reverses the effects of the Undo command. Redo is only available after an Undo operation.
Del	Deletes the selected objects.
Ctrl+Space	Launches the linking dialog box.
K	Show Links: Select either an object or an Channel and the press the 'k' key to show links. If an Channel is selected, then the objects linked to that Channel will be selected, if an object is selected, the Channel that the object is linked to (if linked) will be selected.
U	Show Unlinked: Pressing the 'u' key will select all linkable objects that are currently unlinked or are mis-linked. A mis-linked object is an object that is linked to an Channel that is not valid. This can occur due to an Channel being deleted from the WebViews folder that this object was linked to or the Channel or device being deleted from the server. An unlinked object is an object that has not been linked yet.
Left-Click	Left-click on any object will show what it is linked to and other object information in the status bar. The link will show the full Channel name in the '\\server\device\ Channel format for the object. The status bar is at the bottom of the browser. If it is not visible, you can make it visible by going to the browsers View menu and making sure the 'Status Bar' item has a check mark next to it.
Alt+F1	Shows the position of the selected object, its z-index and its Unique ID and other object information in the status bar. The position information is the objects x and y coordinates in pixels relative to the top left of the window being x=0, y=0. The objects width and height in pixels is also displayed along with its z-index. The z-Index determines which object is visible if objects overlap. The higher the z-Index, the closer the object is to the viewer (the more visible it is). For objects with the same z-index, the order the objects are created determines visibility with the newest object being more visible.
Arrow Key	Moves selected objects by one pixel in the direction of the arrow.
Ctrl+O	Launches the Change One Line Color dialog box.

Object Layout and Sizing

Accelerator	Function
Alt+Arrow Key	Resizes selected objects by one pixel in the direction of the arrow.
Ctrl+Arrow Key	Resizes the objects by 10 pixels.
S	Same Size: Makes the selected objects the same size (width and height) as the focused object. Select any number of objects and then select the object you want the objects to be the same size as the last selection.
W	Same Width: Makes the selected objects the same size in width only as the focused object. Select any number of objects and then as the last selection, select the object you want the objects to be the same width as.
H	Same Height: Makes the selected objects the same size in height only as the focused object. Select any number of objects and then as the last selection, select the object you want the objects to be the same height as.
T	Align Top: Aligns the selected objects with the top of the focused object. Select any number of objects and then as the last selection, select the object to which you want the objects to be aligned.
L	Align Left: Aligns the selected objects with the left side of the focused object. Select any number of objects and then as the last selection, select the object to which you want the objects to be aligned.
B	Align Bottom: Aligns the selected objects with the bottom of the focused object. Select any number of objects and then as the last selection, select the object to which you want the objects to be aligned.
R	Align Right: Aligns the selected objects with the right side of the focused object. Select any number of objects and then as the last selection, select the object to which you want the objects to be aligned.
Shift+H	Align Center Horizontal: Aligns a set of vertically spaced objects with the horizontal mid- point of the focused object. Select any number of objects and then as the last selection, select the object to which you want the objects to be aligned.
Shift+V	Align Center Vertical: Aligns a set of horizontally spaced objects with the vertical mid-point of the focused object. Select any number of objects and then as the last selection, select the object to which you want the objects to be aligned.
A	Space Across: Divides the amount of horizontal (left to right) empty space between the first and last selected objects in a group of objects to make the spacing between all objects in the group even. The left and right-most objects will not be moved, only the objects in between. After executing the space across command, if you find that there is too much or too little space between the objects, just move either the first or last object left or right, select the group again and do another space across.
D	Space Down: Same as Space Across but in the vertical (top to bottom) direction.
Shift+A	Stack Across: Removes all horizontal (left to right) empty space between

	the first and last selected objects in a group of objects. The left-most object will be the anchor object and will not be moved.
Shift+D	Stack Down: Removes all vertical (top to bottom) empty space between the first and last selected objects in a group of objects. The top-most object will be the anchor object and will not be moved.

Object Properties

Accelerator	Function
P	Displays the property editor for an object. The individual properties vary depending on the object. All objects have the Z-index property (so they can participate in the editing Layer). When the property editor is displayed, clicking on the property will display a short description of the property. Most properties can be edited by typing the value directly. Some properties such as the color of an unlinked line may be edited directly, or a Color Picker dialog may be accessed by selecting the Color Picker button.

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