# SAP BusinessObjects

SAP BusinessObjects Xcelsius 2008 User Guide

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# Getting Started

## 1.1 About Xcelsius 2008

Xcelsius 2008 is a data visualization software that enables users to create dynamic and interactive models that can be added to dashboards or exported for delivery in a variety of formats.

The software includes a fully-functioning Excel spreadsheet. Data and formulas can be imported or entered directly into the embedded spreadsheet and then modified, as required, without reimporting the spreadsheet.

To design a visual model of your data, you simply place components onto the canvas and link them to the data in the spreadsheet. Xcelsius 2008 includes a wide range of components, such as dials, gauges, charts, maps, picklists, sliders. You can configure these components to display data directly from the spreadsheet, to write data to the spreadsheet so it can be used by other components, or to accept data entered by users when the model is running.

Xcelsius models can be exported into a variety of formats, such as PowerPoint, Flash, PDF, AIR, Outlook, and the web (using HTML). These models retain their full interactivity and require only Adobe Flash Player to run. The Xcelsius designer and Microsoft Excel are required only during the design phase.

Depending on your Xcelsius 2008 edition, you can configure your model to work with live data updates from external sources, such as XML, Portals, Web Services, SAP BusinessObjects Enterprise (LiveOffice and Query as a Web Service), and SAP Business Explorer Queries.

## 1.1.1 Xcelsius 2008 editions

Xcelsius 2008 is available in several editions to address different needs. All editions have the same basic functionality. The primary difference between editions are the formats that models can be exported to and the ability to access and configure external data connections.

Xcelsius 2008 is available in the following four editions:
- Xcelsius Present  enables users to create models with Microsoft Excel data.
- Xcelsius Engage enables users to create models and connect them to a single external data sources.
- Xcelsius Engage Server  enables users to create models,connect them to multiple external data sources, and deploy them in a portal environment.

- Xcelsius Enterprise enables users to create models and deploy them in a BusinessObjects Enterprise or SAP NetWeaver BW environment.

The following table summarizes the features available in each edition of Xcelsius:

| Feature | Present | Engage | Server | Enter prise |
|---|---|---|---|---|
| Export to Microsoft Excel, PDF, Microsoft Word, Acrobat 9, Microsoft PowerPoint | X | X | X | X |
| Export to Flash (SWF), Adobe AIR, HTML, Microsoft Outlook | | X | X | X |
| Numerous components including charts, selectors, single value, maps, text | X | X | X | X |
| Additional components; Play Button, Play Selection, Source Data, According Menu, Interactive Calendar, Panel set, History, Trend Analyzer | | X | X | X |
| URL Button | X | X | X | X |
| Web Connectivity options including Slideshow and Connection Refresh button | | X | X | X |
| Connect to external data sources | | X | X | X |
| Data Connection Manager | | X | X | X |
| Supports external data connections to Web Services, XML Data, Flash Variables, Excel XML Maps, FS Commands, Crystal Reports Data Consumer, External Interface | | X | X | X |
| Supports external data connections to web portals and reporting services. | | | X | X |
| Supports external data connections with the BusinessObjects platform, including Query as a Web Service (QaaWS), Live Office, and BusinessObjects Enterprise | | | | X |
| Supports Flynet Web Services Generator | | | X | |
| Supports external data connections to SAP Business Explorer (BEx) Queries | | | | X |

## 1.1.2 File formats

Xcelsius 2008 models conform to SWF file format. SWF is the vector-based graphics format designed to run in the Adobe Flash Player. Because a SWF file is vector-based, its graphics are scalable and play back smoothly on any screen size and across multiple platforms. Also, a vector-based file usually has a smaller file size than other animations.

Xcelsius 2008 files are stored in a zipped format with an XLF extension. The XLF file format contains the Xcelsius 2008 model information and its associated embedded spreadsheet file.

**Note:**
Xcelsius 2008 requires Adobe Flash version 9 or later. Newer Flash versions have security features that may prevent models from connecting to an external data source when running them outside the Xcelsius designer.

**Related Topics**
• Adobe Flash Player Security Restrictions

## 1.2 About Xcelsius 2008 Documentation

The Xcelsius documentation includes procedures for creating models including, adding and configuring components, linking components to data, configuring external data sources, and exporting models to different formats. Use the documentation as a reference for creating basic and advanced models.

**Locate Information Quickly**
• Access online help from the Xcelsius Help menu.

  Use the Contents tab to view all major sections in the online help and drill down to specific headings within each section, the Index tab to view topics in alphabetical order, and the Search tab to enter a keyword to view all the sections that relate to the keyword.

• Access a PDF version of the SAP BusinessObjects Xcelsius 2008 documentation on the SAP Help Portal at http://help.sap.com.

## 1.3 Sample models

As you are learning how Xcelsius works and what it can do, it can be helpful to examine sample models as they are during runtime, as well as their underlying configuration and formatting.

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Xcelsius 2008 includes several sample models that illustrate how some of the components and functions work. Each sample includes its own embedded spreadsheet data, so you can see how the components are bound to the data in the spreadsheet. Use these samples to help you understand how to configure similar functions in your own model, or even use them as a starting point and customize them for your own needs.

**Note:**
Opening a sample file overwrites any data currently in the embedded spreadsheet.

## 1.3.1 To view the sample models

1. Click File > Samples.

   The "Samples" dialog box opens.

2. In the Category list, click User Guide Samples.

   A list of the available samples opens in the Items list.

3. In the Items list, click a sample.

   An illustration of the model displays in the "Preview" pane.

4. Click OK.

   The sample file opens.

5. To view the model as a user would see it, click Preview.

## 1.4 Importing files created in Crystal Xcelsius 4.5

If you have models (XLF files) created in Crystal Xcelsius 4.5, you can import them into Xcelsius 2008 and take advantage of the new features in Xcelsius 2008.

You cannot import files created in Xcelsius 3.0, 3.5, and 4.0. To use these files in Xcelsius 2008, you must first import them into Crystal Xcelsius 4.5 and then import the files into Xcelsius 2008.

Xcelsius 2008 minimizes the impact of migrating models from Crystal Xcelsius 4.5. However, some models or components may appear to be different than they were in the original file.

The following differences are the most common:
- Component size. In most cases, the size difference is a few pixels.
- Custom colors may appear to slightly different.
- The Spreadsheet Table component size and formatting.

In addition, if the XLF file you are importing contains an external data connector (XML Data Button, XML Map Refresh, Web Service Connector, Live Office, FS Command, or QaaWS), the following actions occur for each connector or button:

- A connection is created in the "Data Manager" with the previous Refresh Options and Load Status settings.
- A Connection Refresh Button is added to the canvas and the Trigger Behavior settings are mapped to it.

In addition, for Web Service and QaaWS connections, refresh options, and trigger behaviors are mapped as described in the following table:

| Option in Xcelsius 4.5 | Setting in Xcelsius 2008 |
|---|---|
| Name | In the Data Manager, the connection name for migrated connections is set as follows:<br>• For Web Services: SOAP<br>• For QaaWS: QAAWS |
| Refresh on Load | • For versions prior to Xcelsius 2008 SP3, Refresh on Load is selected on the Usage tab in the "Data Manager" for the connection.<br>• For Xcelsius 2008 SP3 and later, Refresh Before Components are Loaded is selected on the Usage tab in the "Data Manager" for the connection. |
| Refresh on Interval | Refresh Every is selected on the Usage tab in the "Data Manager" for the connection. |
| Trigger on Change Only | In the "Properties" panel for the Connection Refresh Button, the value in Trigger Cell maps to Trigger Cell on the Behavior view, and When Value Changes is selected. |
| Trigger On Any Insert | In the "Properties" panel for the Connection Refresh Button, the value in Trigger Cell maps to Trigger Cell on the Behavior view, and When Value Changes is selected. At run-time, when a new value is inserted into the trigger cell, the data refreshes. |

## 1.4.1 To import XLF files created in Xcelsius 4.5

**Caution:**

Backup your current XLF, JPEG, and external SWF files before upgrading your model.

1. Click File > Open.
2. Navigate to the file you want to import and click Open.

   Xcelsius detects that the file is from the previous version of Xcelsius and a warning dialog box opens.

   **Caution:**

   After you import and save your model with Xcelsius 2008, the model cannot be opened using an earlier version of Xcelsius.

The model opens on the canvas. Some components in the model may look slightly different from the original file.

If the components appear to be formatted differently, select the component and open the "Properties" panel. Re-bind any properties that are tied to the cells in the spreadsheet.

**Related Topics**

• Importing files created in Crystal Xcelsius 4.5

# Working in Xcelsius 2008

## 2.1 Understanding the Xcelsius workspace

Before you begin using Xcelsius, take a moment to familiarize yourself with the interface. The Xcelsius workspace includes a canvas, an embedded spreadsheet, Component and Object browsers, a Properties panel, a menu bar, and multiple toolbars. You can show or hide thee items as required.

## 2.1.1 Xcelsius toolbars and buttons

Xcelsius includes four toolbars that you can use when working with models: Standard, Theme, Export, and Format.

### To show or hide toolbars

- To toggle between showing and hiding a toolbar, click View > Toolbars and click the toolbar name.

  A checkmark beside a toolbar name indicates that the toolbar is currently showing.

### Standard toolbar

The standard toolbar contains buttons for completing general tasks in Xcelsius. The following table describes the available buttons:

| Button | Description |
|--------|-------------|
|        | New Document icon. |
|        | Open File icon. |
|        | Save icon. |
|        | Print icon |
|        | Cut icon |
|        | Copy icon |
|        | Past icon |

| Button | Description |
|---|---|
| | Undo icon |
| | Redo icon |
| | Selection Tool icon |
| + | Component Tool icon |
| | Import Spreadsheet icon |
| | Manage Connections icon |
| | Increase Canvas icon |
| | Decrease Canvas icon |
| | Fit Canvas to Components icon |
| | Fit Canvas to Window icon |
| | Preview icon |

**Themes toolbar**

The Themes toolbar contains the following buttons for working with themes:

| Button | Description |
|---|---|
| | Change Theme icon |
| | Change Color Scheme icon |

**Export toolbar**

The Export toolbar contains the following buttons for exporting your model to specific formats:

| Button | Description |
|---|---|
| ☒ | Export to PowerPoint icon |
|  | Export to Microsoft Word icon |
|  | Export to Microsoft Outlook icon |
|  | Export to Adobe PDF icon |
|  | Export to Xcelsius BusinessObjects platform icon |

**Format toolbar**

The Format toolbar contains the following buttons for adjusting components on the canvas:

| Button | Description |
|---|---|
|  | Group Components icon |
|  | Ungroup Components icon |
|  | Align Left icon |
|  | Center Horizontally icon |
|  | Align Right icon |
|  | Align Top icon |
|  | Center Vertically icon |
|  | Space Evenly Across icon |
|  | Space Evenly Down icon |
|  | Make Same Width icon |
|  | Make Same Height icon |
|  | Make Same Size icon |
|  | Bring to Front icon |

| Button | Description |
|---|---|
|  | Send to Back icon |
|  | Bring Forward icon |
|  | Send Backward icon |

## 2.1.2 Setting document properties

The document properties allow you to customize the canvas size, specify how fonts are used, and enter a description for the file. If you save the file as a template, these settings apply to all models created from that template.

You can also enter a brief description of your model, the author, the date, and its intended functionality. When other designers use your XLF file or when you save your model as a template, this information is available.

**Related Topics**

• To set the canvas size
• To set global font options

## 2.1.2.1 To set global font options

By default, you can specify different fonts for different components. These fonts are based on device fonts (the fonts available on your machine) and are not embedded in the SWF file. If, when the model runs, the specified fonts are not available, another similar font is substituted for the missing font and the model may appear different than when it was created.

You can set up a global font so the same font is used for all components. The global font can be based on device fonts or on embedded fonts. When device fonts are used, the SWF is smaller, but the text cannot be rotated and does not use anti-aliasing. When fonts are embedded, you can rotate text and the text uses anti-aliasing, but the SWF file size is larger and the model takes longer to load.

1. Click File > Document Properties.

   The "Document Properties" dialog box opens.

2. On the "Document Properties" dialog box, select Global Font.

   The options for setting up global fonts are enabled.

3. From the list, select the font you want to use for all components.

4. Select one of the following options:

| Option | Description |
|---|---|
| Use Device Fonts | Fonts are not embedded in the SWF file. Device fonts use the SWF player to render the specified TrueType fonts. If a specified font is not available at the time the model runs, another similar font is used. By default, Xcelsius 2008 uses device fonts.<br><br>**Tip:**<br>If a model requires the extended character set defined by Unicode, it is recommended that you use device fonts. |
| Use Embedded Fonts | Fonts used in models will always be available when the model runs, text can be rotated, and anti-aliasing is used.<br><br>**Note:**<br>Embedding the fonts will increase the file size and the amount of time required to load the model.<br><br>To change the text characters that are embedded in the SWF file, click Advanced, select the characters you want to embed, and click OK.<br><br>**Restriction:**<br>Asian characters sets cannot be embedded. |

5. Click OK.

## 2.1.3 Using the Components Browser

The "Components" Browser lists all the components that are available to add to your model. From this list you can drag components onto the canvas.

You can view the list of components grouped into functional categories ("Category" or "Tree" view) or as an alphabetical list ("List" view). Components are grouped into the following functional areas:

| Category | Description |
|----------|-------------|
| Favorites | A list of components you added to this list.<br><br>**Note:**<br>Favorites is available only in "Category" and "Tree" views.<br><br>• To add components to the favorites list, in "Category" or "Tree" view, right-click the component and select Add to Favorites<br>• To remove components from the favorites list, in the favorites list, right-click the component and select Remove From Favorites. |
| Charts | Chart components allow you to create visual representations of data to make it easy for users to see comparisons, patterns, and trends. |
| Containers | Container components group and display other components.<br><br>**Note:**<br>Container components are not available in Xcelsius Present. |
| Selectors | Selector components allow users to choose options when running the model. They allow you to create interactive, dynamic models |
| Single-Value | Single-value components can be linked to a single cell in the spreadsheet and can either allow users to change the value in that cell or display the product of a formula from that cell. |
| Maps | Map components provide geographical representations that allow you to display data by region. |
| Text | Text components can be used to add labels to your model or to allow users to enter text when the model runs. |
| Other | The Other category includes various components that can enhance your model, such as calendars, trend icons, panel sets, and print buttons. |
| Art & Backgrounds | Art & Background components allow you to enhance models by adding images and backgrounds. |
| Web Connectivity | Web connectivity components allow you to link your models to the Internet. |

### Category view

In "Category" view, the components are grouped in a sliding accordion menu. To navigate to the components, click a category title or scroll down to open each category in sequence. Each category displays a visual representation of the components.
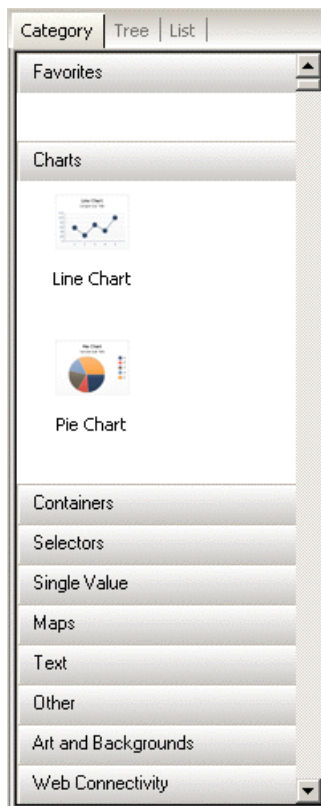
### Tree view

In "Tree" view, the components are organized in folders according to their category. To navigate to components, click the folders to expand the categories and see the list of available components.
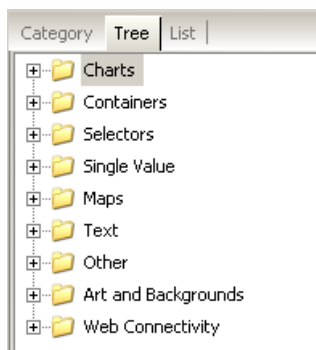


### List view

In "List" view, all components are organized alphabetically and are not grouped by functionality.

To navigate to components in this view, click anywhere within the window, and type the first letter of the component or scroll up or down to find the desired component.

## 2.1.4 Using the Canvas

The canvas area is the main work area where you place and manipulate components to create models.

You can change the color of the canvas background and add a grid to help you arrange items on the canvas. You can also adjust the size of the canvas to give you more space to work or to reduce the overall size of a saved model.

### 2.1.4.1 To set the canvas background

By default, the canvas has a transparent background. This setting can be used in conjunction with the WMODE parameters in HTML to create a transparent background for your Flash movie. If you do not want a transparent background, you can add a background to your model.

1. Open or create a model.
2. If the "Properties" panel is not open, click the canvas and then clickView > Properties.
3. On the "Canvas Properties" panel, set the following options:

| Option | Description |
|---|---|
| Type | Select one of the following types of background: <table><tr><th>Option</th><th>Description</th></tr><tr><td>Solid</td><td>A single solid color</td></tr><tr><td>Gradient</td><td>Two colors that fade together from top to bottom</td></tr><tr><td>Image</td><td>A JPG or SWF file. Select the file to import as the background</td></tr><tr><td>None</td><td>A transparent background</td></tr></table> |
| Background Color | If you selected the Solid or Gradient type, click the Background Color box to set the colors to use in the background. For Solid backgrounds, select a single color. For gradient backgrounds, in Background Color 1, select the color to use at the top of the model and in Background Color 2, select the color to use at the bottom. |
| Import | If you selected the Image type, click Import to select the image file to use. |

## 2.1.4.2 To display a grid on the canvas

When you are arranging components on the canvas, it can be helpful to line items up along grid lines. You can use the grid manually to position each component or you can have components snap to the closest gridlines automatically when they are placed on the canvas.

1. Click File > Preferences.

   The "Preferences" dialog box opens.

2. On the left side of the dialog box, click Grid.

3. In the "Grid" area, set the following options:

| Option | Description |
|---|---|
| Show Grid | Select to display a grid on the canvas. |
| Snap to Grid | Select to have components automatically align to the nearest gridlines. |
| Width | Specify the spacing between grid columns in pixels. |
| Height | Specify the spacing between grid rows in pixels. |

4. Click OK.

**Tip:**
To reset all grid options to their default setting, click Restore Defaults

## 2.1.4.3 Changing the canvas size

You can change the size of your work area by changing the canvas size. Xcelsius provides three options for changing the canvas size: set a specific size in pixels, fit to components, and fit to window. When you are working on a model, you might want to expand the canvas size as much as possible to allow for more room to add and arrange the various components. When your model is complete, you might want to reduce the canvas size around the components before publishing the model to reduce the overall size of the file.

**Note:**
When you export your model, Xcelsius embeds the entire canvas. The canvas size might affect your ability to size and position your embedded model, as well as the time required to load the model.

### 2.1.4.3.1 To set the canvas size

If you want to set a specific size for the canvas, adjust the document properties.

1. Click File > Document Properties .
   The "Document Properties" dialog box opens.

2. On the "Document Properties" dialog box, in the "Canvas Size in Pixels" area, do one of the following:
   • Select Preset Size then, from the list, select one of the available sizes.
   • Select Custom Size then, in the Width box, enter the desired canvas width in pixels and in the Height box, enter the desired canvas height in pixels.

3. Click OK.

### 2.1.4.3.2 To fit the canvas to the components

Your model is open in Xcelsius.

After you complete your model, you can adjust its final size by eliminating the surrounding canvas area. You can fit the canvas tightly around all the components and then fine-tune the size by increasing or decreasing the canvas size in small increments.

1. Click View > Canvas Sizing > Fit Canvas to Components.

   The canvas size is reduced to the minimum size around the components.

2. Adjust the canvas size, as required.
   - From the View menu, click Canvas Sizing > Increase Canvas.
   - From the View menu, click Canvas Sizing > Decrease Canvas.

**Note:**

You can also use the toolbar buttons  (Fit Canvas To Components),  (Increase Canvas), and  (Decrease Canvas) to adjust the canvas size.

**2.1.4.3.3 To fit the canvas to the window**

If you want to increase the size of your work area, you can expand the size of the canvas to fit the window.

1. Click View > Canvas Sizing > Fit Canvas to Window.

   The canvas size is expanded to the maximum size available in the window.

2. Adjust the canvas size, as required.
   - From the View menu, click Canvas Sizing > Increase Canvas.
   - From the View menu, click Canvas Sizing > Decrease Canvas.

**Note:**

You can also use the toolbar buttons  (Fit Canvas To Window),  (Increase Canvas), and  (Decrease Canvas) to adjust the canvas size.

## 2.1.4.4 Arranging components on the canvas

Xcelsius offers several options for aligning and positioning components relative to the page or to other components. You can also move components between different layers on the canvas while you are working or to allow components to overlap.

If you have numerous components on the canvas, you can group them and work with those components as though they were a single item.

**2.1.4.4.1 To place components on the canvas**

There are two way that you can place components on the canvas:

- From the "Components" browser, drag the component and drop it on the canvas where you want it to be.

The component is placed on the canvas.

- In the "Components" browser, click the component and then click the canvas where you want to place the component.

The component is placed on the canvas.

**Note:**

If you set a grid on the canvas and have selected the Snap to Grid option, components are automatically aligned with the nearest grid lines when you place them on the canvas.

**Related Topics**

• To display a grid on the canvas

### 2.1.4.4.2 To align multiple components

You can align the edges or centers of components or groups of components relative to the first component in the selection.

1. Select a component.
2. Hold the CTRL key and select the components you want to align with the first component.
3. Click Format > Align and then click one of the following options:

| Option | Description |
| --- | --- |
| ▐⯅ Left | Aligns the left edge of the selected components with the left edge of the component that was selected first. |
| ⯅ Center | Aligns the center of the selected components vertically with the center of the component that was selected first. |
| ⯈▐ Right | Aligns the right edge of the selected components with the right edge of the component that was selected first. |
| ▜ Top | Aligns the top edge of the selected components with the top edge of the component that was selected first. |
| ⯇⯈ Middle | Aligns the center of the selected components horizontally with the center of the component that was selected first. |
| ▟ Bottom | Aligns the bottom edge of the selected components with the bottom edge of the component that was selected first. |

The selected components are aligned according to your selection.

### 2.1.4.4.3 To center components on the canvas

You can center components or groups of components on the canvas horizontally, vertically, or both.

1. Select a component or multiple components.

To select multiple components, hold the CTRL key and click each component.

2. Click Format  > Center in Canvas and then click one of the following options:

| Option | Description |
|---|---|
| Vertically | Centers the selected components between the top and bottom margins of the canvas. |
| Horizontally | Centers the selected components between the left and right margins of the canvas. |
| Both | Centers the selected components both between the top and bottom margins and the left and right margins of the canvas. |

The selected components are centered on the canvas according to your selection.

### 2.1.4.4.4 To space components evenly on the canvas

At least two components have been placed on the canvas.

You can distribute multiple components on the canvas to have the same amount of space between their center points either vertically (down) or horizontally (across).

**Note:**
The Space Evenly option adjusts the space between the center points of components, not between their edges.

1. Select the components you want to space evenly on the canvas.

   **Tip:**
   To select multiple components, hold the CTRL key and click each component.

2. Click Format  > Space Evenly and then click one of the following options:

| Option | Description |
|---|---|
| Across | Adjusts the component positions so there is an equal amount of horizontal space between their center points. |
| Down | Adjusts the component positions so there is an equal amount of vertical space between their center points. |

The space between the selected components is adjusted according to your selection.

### 2.1.4.4.5 To group and ungroup components

Multiple components have been placed on the canvas.

When you are working on a complex model with multiple components, you may want to group some components together so they are not accidentally separated as you design the layout. Grouped components act as a single item and retain their relative positions when moved.

**Note:**
Components can also be grouped and ungrouped through the Object Browser. For more information, see Using the Object Browser.

1. Select the components you want to group or ungroup.
2. Do one of the following:
   - Click Format > Group.
   - Click Format > Ungroup.

The selected components are either grouped so a single set of boundary markers surround all the grouped components and the group can be moved as a single item, or ungrouped so each component has boundary markers around itself and can be moved independently of the other components.

**2.1.4.4.6 To move components between design layers**

Multiple components have been placed on the canvas.

On the canvas, components and grouped components are in layers. Components on a front layer cover or overlap any components that are on the layers behind. When you are designing your model, you may want to move components from back to front so you can focus on each one.

**Note:**
You can also move components between layers from the Object Browser. For more information, see Using the Object Browser.

1. Select a component.
2. Click Format > Order and then click one of the following options:

| Option | Description |
| --- | --- |
| Bring to Front | Moves the selected components to the top layer. |
| Bring Forward | Moves the selected components one layer closer to the top from its current position. |
| Send Backward | Moves the selected components one layer closer to the bottom layer from its current position. |
| Send to Back | Moves the selected components to the bottom layer. |

The selected components are moved to a layer according to your selection.

**2.1.4.4.7 To copy size settings to other components**

Multiple components have been placed on the canvas.

To quickly adjust the size of multiple components, you can copy the height and width settings of one component to other components on the canvas.

1. Select a component.
2. Hold the CTRL key and select the components you want to make the same size as the first component.
3. Click Format > Make Same Size and then click one of the following options:

| Option | Description |
| --- | --- |
| width | Sets the width of each selected components to the width of the first component. |
| height | Sets the height of each selected components to the height of the first component. |
| Both | Sets both the height and the width of each selected components to the height and width of the first component. |

The size of the selected components is adjusted according to your selection.

## 2.1.5 Using the Object Browser

The Object Browser provides a list of the components that are currently part of your model. You can use the Objects Browser to select and manipulate these components, as well as to lock or hide them on the canvas.
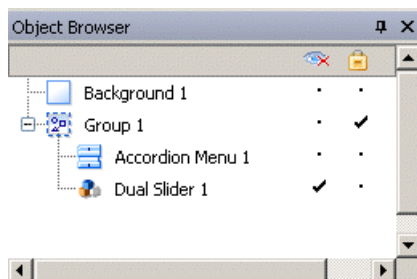


### 2.1.5.1 Selecting components

To select a component in the Object Browser, click the component name or icon to make it the active component on the canvas.

To select multiple components, click a component name or icon, and then hold down the CTRL key while you click additional components. To select a range of components, hold down the SHIFT key while selecting the range in the Object Browser, or click the canvas and drag the cursor over a group of components.

Combine methods by selecting a group of components first with SHIFT+click and then other separate components using CTRL+click. Always select using SHIFT+click first; this method will not work in reverse.

Select all components by selecting any component, then pressing CTRL+A.

**Note:**

On the canvas, you cannot select components that are marked as hidden or locked. You can select those components only in the Object Browser.

## 2.1.5.2 Hiding components

When you are designing a model, you may have many components on the canvas and it can be helpful to move some out of the way while you focus on others. However, it would be inconvenient to delete them or move them to the side. In the Object Browser, you can temporarily hide components on the canvas. Hidden components are still part of the model and retain all their formatting, but they are not visible in design mode.

**Note:**

If you preview or export the model, the SWF includes hidden components.

To hide or show components on the canvas, in the Object Browser, do any of the following:

| To | Do this |
|---|---|
| Hide a component | Beside the component, click the dot in the column under the Hide icon ( 👁 ). |
| Hide a group | Beside the group, click the dot in the column under the Hide icon ( 👁 ). |
| Hide all components | In the toolbar, click the Hide icon ( 👁 ). |
| Show a hidden component or group | Beside the hidden item, click the check mark in the column under the Hide icon ( 👁 ). |
| Show all hidden components and groups | If all items are hidden, in the toolbar, click the Hide icon ( 👁 ).<br><br>OR<br><br>If some items are hidden, in the toolbar, click the Hide icon to hide all components and then click it again to show all components. |

## 2.1.5.3 Opening properties panels

In the "Object " browser , you can open the "Properties" panel for components or groups in one of the following ways:

- Double-click the icon or label for the component.

  **Note:**
  Double-clicking a group icon or label expands or collapses the group within the tree.

- Select the component or group and press ALT + ENTER

- Right-click the component or group and click Properties.

**Note:**
Once the "Properties" panel is open for one component you can navigate to the "Properties" panel of another component or group by clicking the item in the "Object Browser ".

## 2.1.5.4 To rename components

When you place a component on the canvas, it is automatically assigned a name. This name appears in the title bar of the "Properties" panel and in the "Object Browser". You can rename components as required.

1. In the "Object Browser", click the component you want to rename.
2. Click the name of the component.

   The name is highlighted and the cursor is in the name text box.

3. Type a name for the component and press Enter.

## 2.1.5.5 Grouping components

Objects in the Object Browser can be grouped in the following ways:

- Select several components, then right-click on any of the components and select Group from the context menu.

- Select several components, then click ⊞ the toolbar.

Once grouped, the components will appear in the browser in tree form with a folder representing the group. Expand the group folder by clicking the + button or double-clicking the folder icon or the group label. Components can be dragged into and out of the group by dragging them to a different location in the browser tree.

To ungroup selected components, click ⊟ the toolbar or right-click the group to access the context menu, then select Ungroup.

## 2.1.5.6 Locking Components

Components and groups can be locked on the canvas to prevent any interaction with them. This can be helpful when there are many components laid out on the canvas. The component or group will be selectable only in the "Object" browser.

To lock or unlock components on the canvas, in the "Object" browser, do any of the following:

| To | Do this |
|---|---|
| Lock a component | Beside the component, click the dot in the column under the Lock icon ( 🔒 ). |
| Lock a group | Beside the group, click the dot in the column under the Lock icon ( 🔒 ). |
| Lock all components | In the Object Browser toolbar, click the Lock icon ( 🔒 ). |
| Unlock a component or group | Beside the locked item, click the check mark in the column under the Lock icon ( 🔒 ). |
| Unlock all components and groups | If all items are locked, in the Object Browser toolbar, click the Lock icon ( 🔒 ). OR If some items are locked, in the Object Browser toolbar, click the Lock icon ( 🔒 to lock all components and then click it again to unlock all components. |

## 2.1.5.7 Moving Components Forward/Back

Click and drag a component in the browser to change the image layer it appears in. Moving a component higher in the list moves the component to a higher layer; moving the component down places it in a lower layer.

Component layers can also be changed by right-clicking the component name in the "Object" browser and selecting one of the following options:
- Bring to Front
- Send to Back
- Bring Forward
- Send Back

## 2.1.6 Using the context menu

Display a context menu by right-clicking any component in the browser or on the canvas.

The context menu provides access to many of the functions that are available in the "Object" browser.

## 2.2 Customizing Xcelsius with add-ons

A variety of model components and feature extensions are available for Xcelsius. These items (called add-ons) have been created by BusinessObjects partners and customers and are available for sale or free from Information OnDemand . You can download charts, maps, and other model and feature extensions and use them to customize your Xcelsius models.

### 2.2.1 To download add-ons

Before you can install an add-on, you must download it to your system.

1. Click File > Manage Add-ons.
   The "Xcelsius Manage Add-ons" dialog box opens.

2. Click Get More Add-ons and, in the security dialog box, click OK.
   The "Information OnDemand" website opens to the "Xcelsius Add-on Marketplace" page.

3. Under "Find an Add-on", click Visit the Marketplace to View All Add-ons.
   The Information OnDemand website lists the available add-ons. Click the one you want to download.

4. Click Check Out.
   The "Sign In" dialog box opens.

5. On the "Sign In" dialog box, do one of the following:
   • Enter your sign-in information and click Sign In.
   • To register, click Create New Account and follow the instructions.

6. Read the terms of the offering and select I agree to the Terms of Use checkbox. Click Checkout and follow the online instructions to download the file.

The add-on is available for installation.

If the add-on was in a zipped folder, extract the files, and then install the downloaded add-on.

### 2.2.2 To install add-ons

The add-on has been downloaded to your system.

After you download an add-on, you must install it before you can use it.

1. Click File > Manage Add-ons.

The "Xcelsius Manage Add-ons" dialog box opens.

2. Click Install Add-on.
3. Navigate to the location where the add-in files were saved and extracted. Select the XLF file and click Open.

The add-on is installed and available for use.

### 2.2.3 To remove add-ons

An add-on is installed.

1. Click File  > Manage Add-ons.
   The "Xcelsius Manage Add-ons" dialog box opens.

2. From the list on the left, select the add-on you want to remove. Click Remove.
   The "Confirm Add-on Removal" dialog box opens.

3. Click Remove.

The add-on is removed from Xcelsius.

# Working with Components
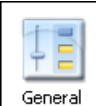
## 3.1 Using the Properties panel

The "Properties" panel contains the setting and format options for the selected component. After you place a component on the canvas area, you can access the "Properties" panel is several different ways:

- Double-click the selected component
- Right-click the component and select Properties
- Press ALT+ENTER
- In the "Object" browser, right-click the component and select Properties
- In the "Object" browser, select the component and press ALT+ENTER

In general, the "Properties" panel has the same structure for all components, but the options available are specific to each individual component.

The "Properties" panel may include the following views:

| view | Description |
|------|-------------|
| General | Use the General view to set the basic configuration for components, such as titles, labels, and the location of the source and destination data. |
| Drill Down | The Drill Down view is available for some charts. Use this menu to configure charts to act as selectors, so that clicking a chart element inserts more detailed information into the embedded spreadsheet so it can be used by another component to create drill down behavior. For information about configuring chart drill down behavior, see Configuring drilldown behavior. |
| Behavior | Use the Behavior view to set up how the component will work within the model. For example, setting limits, interactivity, and visibility. |
| Appearance | Use the Appearance view to format the look of components, including font size, title locations, legends, colors, and so on. |
| Alerts | Use the Alerts view to set up notifications regarding the data. You can turn alerts on, set the number of colors, and the target limits. For information about using alerts, see Understanding Alerts. |

### 3.1.1 Setting properties for multiple components

By selecting multiple components on the canvas, you can simultaneously edit properties for the selected components. To access properties for multiple components select the components and double-click the selection. You can also access the properties by right-clicking the selection and selecting Properties from the context menu.

If the components are of the same type, you can edit properties specific to that component type. For example, if your current selection contains three Line Chart components, you will be able to access the properties specific to the Line Chart. Any change made to the properties will apply to all components in the selection. The "Properties" panel selections with components of mixed types or groups are limited to the Dynamic Visibility parameters on the Behavior view. When a number of components are grouped, the properties for individual components within that group may be accessed by right-clicking that sub-group component in the "Object" Browser . See Using the Object Browser for more information.

## 3.1.2 Setting colors for component elements

You can select specific colors for almost every element of every component in Xcelsius. Colors are specified on the "Properties" panel for each component on either the Appearance view or the Alerts view.

To set the color for an element, you click the Color Selector icon ( ) or the Bound Color Selector icon ( ) beside the element name.

When you specify a color for an element, you can select from a number of common color definitions, create your own definitions, or bind the color to a cell in the embedded spreadsheet to allow the color to be dynamically set during run-time.

### 3.1.2.1 To specify element colors

A component is placed on the canvas.

To set the color for a component element, you can select from a number of predefined colors.

1. Select the component and open the "Properties" panel.
2. On the "Properties" panel, select the Appearance or Alerts view and beside the element you want to define, click the Color Selector icon ( ).
   The "Color" dialog box opens.
3. To assign a predefined color, click a color from one of the following sections:

| Option | Description |
|---|---|
| Theme Colors | These colors are in the currently assigned theme. |
| Standard Colors | These are a selection of basic colors settings. |
| Recent Colors | These are colors that you have recently used for another element. |
| More | Use this option to display a larger color wheel with a greater selection of colors. When you select a color on the wheel, it is displayed in the New block next to the Current color so you can compare the difference. When you have selected the color you want. Click OK. |

The selected color is applied to the component element and the Color Selector icon is updated to display the current color.

### 3.1.2.2 To create a custom color for elements

A component is placed on the canvas.

If you want to assign a specific color to component elements, you can specify the RGB or HSL values to define the color precisely. Custom colors can then be assigned to component elements in the same way predefined colors are assigned.

1. Select the component and open the "Properties" panel.
2. On the "Properties" panel, select the Appearance or Alerts view and beside the element you want

   to define, click the Color Selector icon ( ).
   The "Color" dialog box opens.
3. On the "Color" dialog box, click More Colors.
4. Click the Custom tab.
5. In the Color Model list, select either RGB or HSL and then set the applicable color setting levels, that is, for RGB, set the Red, Green, and Blue levels and for HSL, set the Hue, Saturation, and Luminosity levels.

   The resulting color is displayed in the New block next to the Current color so you can see the difference.
6. To save and apply the custom color to the selected element, click OK.

The custom color setting is applied to the selected component element and the Color Selector icon

( ) is updated to display the current color.

### 3.1.2.3 To dynamically set colors at run-time

A component is placed on the canvas.

If you want to configure a component or component element to change colors at run-time based on user input or a setting for another component, you can bind the color setting to a cell in the embedded spreadsheet.

When the color is bound to a spreadsheet cell, it uses whatever value is entered in that cell to set the color. You can then configure the value in the cell to be set by user input, another component, an external data source, and so on.

**Note:**
Colors that are bound to a cell are not affected by changes to the color theme applied to the model.

The following color formats are supported:

- HEX (For example, FFFFFF, #FFFFFF, 0xFFFFFF)
- RGB (For example, (255,255,255) )
- VGA Color names (For example, Aqua, Black, Blue, Fuchsia, Gray, Green, Lime, Maroon, Navy, Olive, Purple, Red, Silver, Teal, White, Yellow.)
- Decimal Color Equivalent (For example, F00FF becomes 16711935)

**Caution:**

If the value in the specified cell is not a valid color setting or the cell is empty, the component element color is set to Black.

1. Select the component and open the "Properties" panel.
2. On the "Properties" panel, select the Appearance or Alerts view and, beside the element you want to define, click the Color Selector [ ] or icon.
   The "Color" dialog box opens.
3. On the "Color " dialog box, click Bind to a Color.
4. In the "Select a Range" dialog box, select the cell you want to bind the color to. Click OK.

The element color is updated based on the value in the selected cell and the Color Selector icon ( [ ] ) changes to a Bound Color Icon ( [ ] ) to indicate that the setting is bound to a cell.

## 3.2 Using Xcelsius 2008 Components

### 3.2.1 Using Chart components

Charts allow you to represent data visually to make it easy for users to see comparisons, patterns, and trends. Xcelsius includes the following types of charts.

### Area Chart
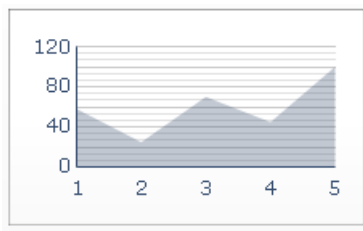


A standard chart with vertical and horizontal axes. Each point along the horizontal axis represents a data point. The actual values for each data point are plotted against the vertical axis. For each series, colored areas are created by connecting the plotted points against the horizontal axis. Use this chart in models that emphasize a trend line, such as Stock Prices or Revenue History.

### Bar Chart and Column Chart
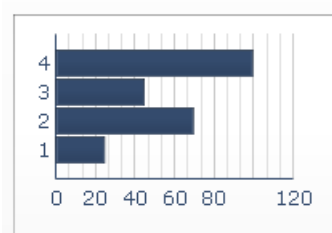


A single- or multi-bar chart that shows and compares one or more items over a period of time or in a specific range of values. You could, for example, use a column chart in models that contain the quarterly headcount by region.

### Bubble Chart
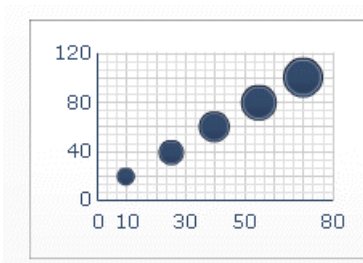


The bubble chart is one of the most powerful analytic tools available. It lets you compare a group or series of items based on three different parameters. It has an X-axis and Y-axis to represent the item location over the chart area, and a Z value to represent the item size.

You could, for example, use this chart to represent the market composition with the X-axis representing the Return On Investment (ROI) by industry type, the Y-axis representing the Cash Flow, and the Z-axis representing the Market Value.

## Bullet charts
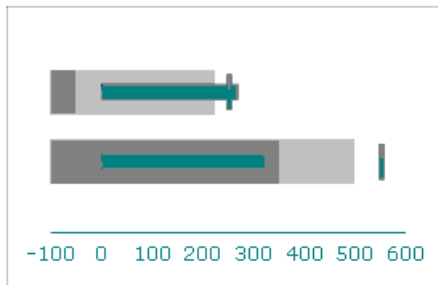


This chart component provides a method to display information in a condensed, less-distracting format and is available with either a vertical or horizontal orientation.

The Bullet chart components have a single primary measure (for example, current year-to-date revenue) that is displayed as a vertical or horizontal bar. A marker indicates a target or performance goal and changing color hues behind the bar indicate qualitative ranges of performance (for example, poor, satisfactory, and good).

Designers can configure the Bullet chart to display multiple series and can configure the scale, axis, and ticks separately for each series. For example, the chart can be configured to show revenue in thousands of dollars, profit in dollars, and order size as a count.

## Combination Chart
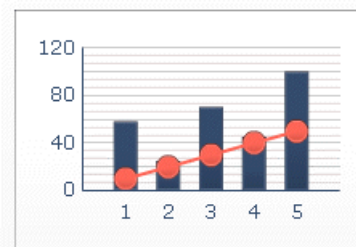


A combination column and line chart ideal for displaying a range of values and a trend line for those values. You can use the combination chart in models examining stocks. A line series might show the historical stock price over the year, and a column chart might show the volume of trading for that stock.

## Line Chart
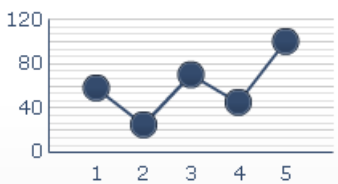


A single- or multi-line chart is ideal for showing tendency over a period of time. Use this chart in models that emphasize a trend or a continuing sequence of data, such as Stock Prices or Revenue History.

### OHLC Chart and Candlestick Chart
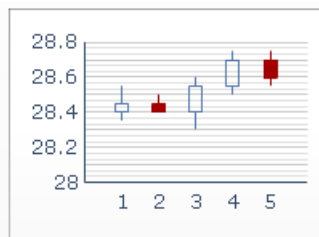


The open-high-low-close (OHLC) and candlestick charts are primarily used to display stock data. Each marker corresponds to the values, which are represented as lines attached to the marker on the OHLC chart and as colors on the candlestick chart. The open value displays the opening price of the stock. The high value displays the highest price the stock achieved on that day. The low value displays the lowest price the of the stock on that day. The close value displays the closing price of the stock.

### Pie Chart
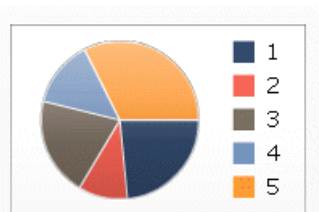


A circular chart that represents the distribution or participation of each item (represented by a slice) of a certain total that is represented as the overall pie value. The pie chart is appropriate for models such as Revenue Contribution by Product. In that example, the overall pie size would represent the total revenue, and each slice would represent a different product.

### Radar Chart and Filled Radar Chart
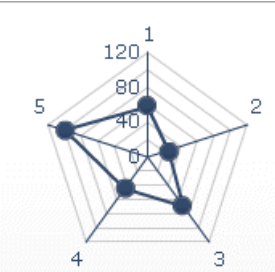


Radar charts have axes that radiate outwards from the center of the chart. These charts can have several axes. They are useful for plotting multi-dimensional sets of data. In the filled radar chart, the shape created by connecting the points along each axis is filled in with color. You could use the radar charts to compare aspects of stocks. One axis could display the price, another the volume, another the Price to Earnings ratio, and any other relevant data.

### Sparkline
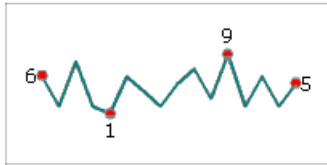


The Sparkline chart is based on the Sparkline chart created by Edward Tufte. It provides a method for displaying a one-dimensional series (or multiple series) of numeric data in a way that is dense, takes up a small space, and can be quickly interpreted.

Designers can set key data points (start value, end value, low value, and high value) that are displayed as markers on the Sparkline chart. They can also define a normal range that is displayed as a colored background behind the chart.

### Stacked Area Chart
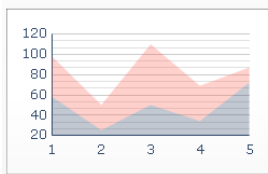


This standard chart has vertical and horizontal axes. Each point along the horizontal axis represents a data point. The actual values for the data points are plotted against the vertical axis, with each series adding to the total value. You could use the stacked area chart to compare the revenue for multiple products as well as the combined revenue of all the products and the contribution of each product to the combined revenue.

### Stacked Column Chart and Stacked Bar Chart
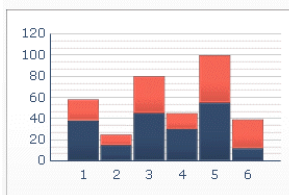


Stacked bars compare one or more variables, with each series adding to the total value. This chart compares several variables over a period of time, for example, Marketing Cost and Administrative Cost. Each one of the cost components is presented in a different color and each bar represents a different time period. The total bar size represents the Total Cost.

**Tree Map**



This chart displays hierarchical data in a small area. Each data point is represented by a rectangle. The tree maps display two parameters, represented by size and color intensity and can be used to compare two sets of data.

For example, a tree map could be used to represent the size and interest rate of loans. You can set the size of the rectangle as the loan amount; a large loan would be represented by a larger rectangle. The color of the rectangle would represent the interest rate; a higher interest rate would be represented by a brighter color value.

**Tip:**
To see an example of a model with a Tree Map component, click File  > Samples  and open the sample file Tree Map.

**XY Chart**
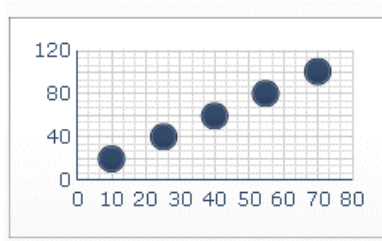


This chart displays data that encompasses two dimensions. The XY chart shows each data point as a result of the intersection of X values and Y values. You can, for example, use the XY chart in models that compare ROI (on the X axis) against Market Value (on the Y axis) for a group of companies.

**Related Topics**

• To set up a chart

## 3.2.1.1 To set up a chart

A list of values is entered in the embedded spreadsheet and a chart is placed on the canvas.

1. Select the chart and open the "Properties" panel.
2. On the "Properties" panel, click the General view and enter the titles and labels for the chart elements, then link the chart to the data in the spreadsheet. For more information about the available options, see Chart General properties.

    The chart is updated with the changes.

3. If applicable, click the Drilldown view and set the required options. For more information about the available options, see Chart Drilldown properties.

   The drilldown feature allows you to set up a chart to act as a selector to display more detailed information. For example, you could set up a pie chart to show the annual sales in different regions and when the user clicks a pie section, another chart displays the monthly sales for that region.

4. Click the Behavior view and set the options for how the component functions in the model including handling variable amounts of data, scaling, and animations. For more information about the available options, see Chart Behavior properties.

5. Click the Appearance view and set the visual characteristics for each chart element and, if desired, add a legend. For more information about the appearance options, see Chart appearance properties.

6. If applicable, click the Alerts view to set up notifications of when specified values have been reached. For more information about alerts, see Understanding Alerts.

7. Click File > Save and enter a location and filename for the model. Click OK.

The chart is added to the model and configured. To see how the model will look at run-time, on the Toolbar, click Preview.

**Related Topics**

• Using the Properties panel

## 3.2.1.2 Chart General properties

Use the following table as a guide for setting the Chart component properties on the General view. Note that some options are available only for specific chart types.

| Option | Description |
| --- | --- |
| "Titles" | |
| Chart | All<br><br>The main title for the chart. By default, it is centered at the top of the chart. |
| Subtitle | All<br><br>A secondary title for the chart. By default, the subtitle is centered at the top of the chart below the chart title. |
| Category (x) Axis | Line, Pie, OHLC, Candlestick, Column, Stacked Column, Combination, Area, Stacked Area<br><br>The label for the data categories displayed along the X axis. |

| Option | Description |
|---|---|
| Category (Y) Axis | Bar, Stacked Bar, Bubble, XY<br><br>The label for the data categories displayed along the Y axis. |
| Horizontal (X) Axis | Horizontal Bullet Chart<br><br>The label for the data along the X axis. |
| Vertical (Y) Axis | Vertical Bullet Chart<br><br>The label for the data along the Y axis. |
| Value (Y) Axis | Line, Pie, OHLC, Candlestick, Column, Stacked Column, Combination, Area, Stacked Area<br><br>The label for the values displayed along the Y axis. |
| Value (X) Axis | Bar, Stacked Bar, Bubble, XY<br><br>The label for the values displayed along the X axis. |
| Secondary Value (Y) Axis | Line, Column, Combination, Area<br><br>The label for the secondary Y axis displayed on the right of the chart.<br><br>**Note:**<br>This option is available only if By Series is selected and Plot Series On is set to Secondary Axis. |
| Secondary Value (X) Axis | Bar<br><br>The label for the secondary X axis displayed at the top of the chart.<br><br>**Note:**<br>This option is available only if By Series is selected and Plot Series On is set to Secondary Axis. |
| "Data" | |
| By Range | All except Pie<br><br>Select this option to display a range of values for a single series.<br><br>Select one of the following options:<br>• If the data series is from the columns of the worksheet, select Data in Columns.<br>• If the data series is from the of rows the worksheet, select Data in Rows. |

| Option | Description |
|---|---|
| By Series | Line, Column, Stacked Column, Bar, Stacked Bar, Bubble, XY, Stacked Area, Radar, Filled Radar<br><br>Select this option to display multiple series of values.<br><br>To add a series to the chart, click the Plus icon ( ⊞ ).<br><br>Then, select each series and set the following options:<br><br>

| Option | Description |
|---|---|
| Name | The name for the series. |
| Values | The X or Y data points from the spreadsheet. |
| Plot Series On | The axis you want to plot the series on. |
| Category Labels | The label displayed on the X axis to identify each category in the series. |

|
| By Series | OHLC, Candlestick<br><br>Select this option to display multiple series of values.<br><br>Set the following options:<br><br>

| Option | Description |
|---|---|
| Series Name | The name of the series. For reference only. |
| Open | The range for the opening value. |
| High | The range for the high value. |
| Low | The range for the low value. |
| Close | The range for the closing value |
| Category Label | The label displayed on the X axis to identify each category in the series. |

|
| By Series | |

| Option | Description |
|--------|-------------|
| | Tree<br><br>Select this option to display multiple series of values.<br><br>To add a series to the chart, click the Plus icon ( ⊞ ).<br><br>Then, select each series and set the following options:<br><br>{{SUBTABLE1}} |
| By Series | Horizontal and Vertical Bullet<br><br>Select this option to display multiple series of values.<br><br>To add a series to the chart, click the Plus icon ( ⊞ ).<br><br>Then, select each series and set the following options:<br><br>{{SUBTABLE2}} |
| Values | Pie<br><br>The range of values represented by each color on the chart.<br><br>Select one of the following options:<br>• If the data series is from the columns of the worksheet, select Data in Columns.<br>• If the data series is from the of rows the worksheet, select Data in Rows. |

Subtable for Tree:

| Option | Description |
|--------|-------------|
| Display Labels | The name of the series. For reference only. |
| Values (size) | The range of values represented by the size of squares on the chart. |
| Values (color intensity) | The range of values represented by the color intensity on the chart. |

Subtable for By Series:

| Option | Description |
|--------|-------------|
| Label | The name of the series. For reference only. |
| Sublabel | A secondary label for the series that appears below the series label. |
| Performance Value | The range of values that represent actual performance. |
| Comparative Value | The range of values for the target performance. |
| Scale Value | The range of values that define the scale for performance, for example, poor, fair, good. |

| Option | Description |
|---|---|
| Labels | Pie<br><br>The labels displayed beside each color in the chart key, |
| Header Labels | Sparkline<br><br>The labels displayed beside each series in the chart. |

**Related Topics**

• To set up a chart
• Chart Behavior properties
• Chart Drilldown properties
• Chart appearance properties

## 3.2.1.3 Chart Drilldown properties

Use the following table as a guide for setting the Drilldown properties for charts that contain a series. Note that some options are available only for specific chart types.

**Note:**

Drilldown options are not available for Area, Stacked Area, Vertical and Horizontal Bullet, Sparkline, Radar, or Filled Radar charts.

| Option | Description |
|---|---|
| Enable Drilldown | All<br><br>Allows the chart to behave as a selector. This option is available only to charts that contain a series. For more information about setting up a series, see Chart General properties. |
| Series Name Destination | All except Pie charts<br><br>The cell in the embedded spreadsheet where the currently selected series name will inserted. This option is used to identify the series of data that is inserted. |
| Insertion Type | All<br><br>Select the structure of the data that will be inserted into the embedded spreadsheet when a selection is made. |

| Option | Description |
|---|---|
| Series | Line, Column, Stacked Column, Bar, Stacked Bar, Combination , Pie<br><br>For each series the chart contains, select the series and, then, set the Source Data, Value Set (when Insertion type is Value), and Destination values.<br><br>For Pie charts, the Series list is not available. Define the Source Data and Destination values. |
| Interaction Options | All<br><br>Specifies how selections are made on the component. |
| Default Selection | All<br><br>Specifies the item or series that will be selected when the model is loaded. |

**Related Topics**

• To set up a chart
• Chart General properties
• Chart Behavior properties
• Chart appearance properties

## 3.2.1.4 Chart Behavior properties

Use the following table as a guide for setting the Behavior properties for charts. Note that some options are only available for specific chart types.

| Option | Description |
|---|---|
| Common Tab | |

| Option | Description |
|---|---|
| Ignore Blank Cells | All<br><br>**Note:**<br>The In Series option is not available for Pie, Candlestick, OHLC, or Tree Map charts.<br><br>Specifies whether blank cells at the end of the data are displayed on the chart or ignored.<br><br>Set any of the following options:<br>• In Series — The chart does not display empty series past the last non-empty series in a range.<br>• In Values — The chart does not display empty values past the last non-empty value in a series.<br><br>For more information about using this option, see Working with variable amounts of data. |
| Normal Range Area | Sparkline Chart components only.<br><br>Select this option to enable an area of color behind the sparkline to indicated the range of normal values for the given data. |
| Auto | Sparkline Chart components only.<br><br>Select this option to set the normal range area based on the variance of the data. |
| Manual | Sparkline Chart components only.<br><br>Select this option to set the normal range area based on specific low and high values. Enter the low and high values or click the Cell Selector icon (  ) to select a source data location for these values. |
| Enable Run Time Tools | All except Pie, Tree Map, Horizontal and Vertical Bullet charts.<br><br>Specifies whether users are able to adjust the chart scale during runtime. If this option is selected, when the model runs, a set of runtime tools are available and allow users to adjust the chart scale. You can also select which tools are available in the runtime tool set. For more information about using this option, see Allowing users to adjust chart scales . |

| Option | Description |
|---|---|
| Enable Range Slider | Line, Bar, Stacked bar, Column, Stacked column, Candlestick, Combination, OHLC, Area, Stacked Area charts<br><br>Adds a range slider to allow users to focus on a particular data set rather than viewing the entire chart at once. Users can change the size of the range by adjusting control handles on either side of the range slider. For more information about using this option, see Adding Range Sliders to charts<br><br>. |
| Enable Sorting | Line, Pie, Column, Stacked column, Bar, Stacked bar, Combination, Area, Stacked area, Radar, Filled Radar charts<br><br>Sorts the chart values according to specified data series or chart labels.<br><br>Select one of the following options:<br><br>_see sub-table below_ |
| Dynamic Visibility | All<br><br>This option allows you to specify conditions that control when the chart is visibile in the model. For more information about using dynamic visibility, see Managing the Visibility of Components. |
| Scale Tab | |
| Scale | Use these options to specify how the scale looks on the chart. For more information, see Configuring Scales. |
| Animations and Effects Tab | |

Sub-table for Enable Sorting:

| Option | Description |
|---|---|
| Data | Sort according to the data values.<br><br>If the chart has multiple series, in the Series list, select the series to sort on. In the Order list, select Ascending or Descending. |
| Category Labels | Sort by category axis labels.<br><br>Labels are sorted alphanumerically in ascending order. To sort in descending order, select the Reverse Order check box. |

| Option | Description |
|---|---|
| Enable Data Animation | All except Tree Map<br><br>When enabled, data animations add movement to chart components. For example, in Bar charts the bars gradually increase or decrease in size and, in point-based charts, the points slide to there new position as the data changes. When not enabled, the value markers jump to their new position when the data changes. |
| Entry Effect | If dynamic visibility is enabled, select how you want to the chart to appear on the canvas when triggered. You can select an entry effect and specify how long you want to components appearance to take. For more information about dynamic visibility, see Managing the Visibility of Components |

**Related Topics**

• To set up a chart
• Chart General properties
• Chart Drilldown properties
• Chart appearance properties

### 3.2.1.4.1 Configuring Scales

The scale controls how data is plotted on the chart and how the chart axes adjust as the data values change.

**Note:**
Scales do not apply to Pie, Tree, or Sparkline charts.

You can allow chart scales to adjust automatically based on the data. However, depending on what the data is showing, the auto-created scale may not be appropriate and you may want to control the scale manually. If you set a manual scale, the scale will not change to accommodate the data and if data values exceed the chart range, they will not show on the chart. For example, if your data is represented as a percentage of a specific quantity, it may not be appropriate to include 120%.

You can also specify the scale format as either linear (based on addition) or logarithmic (based on multiplication). In general, you should try using a logarithmic scale for larger number ranges or for data that contains a wide variation of values.

**Note:**
If you want to allow users to adjust the scale at runtime, enable runtime tools on the Behavior > Common menu.

**Related Topics**

• Allowing users to adjust chart scales
• Chart Behavior properties

*To configure chart scales*

A chart has been placed on the canvas and linked to cells in the embedded spreadsheet.

1. Select the chart and open the "Properties" panel.
2. In the "Properties" panel, click Behavior > Scale .
3. If you are configuring a Bullet Chart component, to configure a different scale for each series, select the Configure Scale by Series option. Then select the series you want to configure from the list.

   Use this option when you need to display metrics that are not closely comparable within a single scale or when the series use different scale measures, for example, percent, count, dollars.

4. Under Scale, select one of the following options:

   • Manual Axis

   Select this option to set fixed scale limits that will not change to accommodate the data values. If the data values exceed the specified scale range, the markers do not show the outlying values. Users can see the values when in a tooltip when they move the mouse over the marker. If you select this option, set the Maximum and Minimum Limits for each scale axis.

   • Auto Axis

   Select this option to allow the scale limits to change to accommodate the data values, then set the following options:

   | Option | Description |
   | --- | --- |
   | Allow Zoom Out Only | Select this option if you want the scale to grow as data values increase, but not shrink when the values decrease. This option minimizes the number of times the chart must rescale and is useful to reduce the impact on performance when the chart is included in an animation. |
   | Zoom Sensitivity | If Allow Zoom Out Only is selected, adjust the amount the axis scale will change. Move the slider to the right to increase the amount the axis scale will increase when the chart scale increases. |

5. In the Axis Scale list for each chart axis, select one of the following options:

| Option | Description |
|---|---|
| Linear | A linear scale increases by adding a set amount to each scale marker (for example, 1, 2, 3, 4). This is the most commonly used scale and works well when the data value range is fairly small. |
| Logarithmic | A linear scale increases in multiples. This scale is helpful when the data value range is broad or includes some values that are much larger than others. For example, if you had quantities like 10, 100, and 60,000, these values would not fit well on a linear scale and the smaller values would be lost. A logarithmic scale may reveal structured relationships over many orders of magnitude. |

6. To lock the width of the axis labels and prevent them from being resized if the scale changes, select Fixed Label Size.

7. If Fixed Label Size is selected, to define the axis scale labels, click the Manual Edit icon ( 📝 ) beside Label Abbreviations and then edit the abbreviations.

8. If the Manual Axis option is selected , under "Divisions", select one of the following options:

   **Note:**

   If a scale is defined for more than one chart axis, the division settings apply to all of them and can't be set differently for each axis.

   • Number of Divisions

     To set the number of scale markers to show on the axis. The value of the markers is determined by the range of the scale. If the scale changes, the values of the markers are adjusted to maintain the same number of markers.

   • Size of Divisions

     To set the values of the markers based on a specific amount between markers. The value of the markers is determined by adding this amount to the previous marker. If the scale changes, the number of markers may change, but the values of the markers remain the same.

9. In the Minor Divisions list, select the number of grid lines to show between chart markers.

   **Note:**

   If Show Major Ticks or Show Minor Ticks are not selected on the Appearance  > Axis menu, division markers do not show on the chart.

**Related Topics**

• Allowing users to adjust chart scales
• Chart Behavior properties
• Chart appearance properties

### 3.2.1.4.2 Adding Range Sliders to charts

When you add a range slider to a chart, a miniature version of the chart displays below or beside to the chart. A slider on the miniature chart allows users to select a portion of the data to show in the main chart.
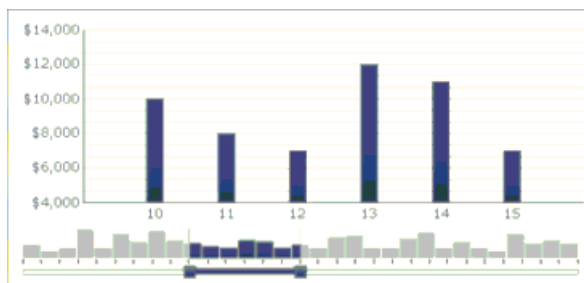


**Note:**

For Bar and Stacked Bar charts, the range slider appears to the left of the chart.

When you configure the range slider, you can specify the size and location of the range slider by setting the beginning and end range values. By default, these values are set to 0 (zero) and the maximum value, so the range spans the entire chart range. You can set the values to a specific data position or, if category axis labels are defined for the chart, to specific category labels. You can also bind the range values to cells in the embedded spreadsheet that are set by another source, such as a selector component in the model.

**Note:**

If the beginning range value is larger than the end range value, the range slider will select the entire chart range and the main chart will show the entire range by default.

To change the data displayed in the main chart, users drag the range slider across the miniature chart. Users can also expand the size of the range in the main chart by dragging the control handles on either side of the range slider.

**Related Topics**

• Using Chart components
• Chart Behavior properties

*To configure range sliders*

1. Select the chart and open the "Properties" panel.
2. In the "Properties" panel, click Behavior  > Common.
3. Select the Enable Range Slider checkbox.
4. In the Beginning Range Value list, select one of the following options:
    • Position -- to specify a data position in the chart. For example, if 30 points are being plotted in the chart, a value of 2 would refer to the second point in the data set.

- Category Label -- to specify a category axis label. For example, if category axis labels are set to the days of the month, you could specify March as the beginning range value.

  **Note:**

  If category axis labels are not defined, this option is not available.

5. In the Beginning Range Value box, type a range value or select the Cell Selector icon (  ) to select a cell in the embedded spreadsheet.

   **Note:**

   To have the value set by another component, select an empty cell and then configure another component to enter a value in that cell.

6. Repeat steps 4 and 5 to set the End Range value.
7. Beside the Range Labels box, do one of the following:

   - Select the Cell Selector icon (  ) to select cells in the spreadsheet.
   - Select the Manual Entry icon (  ) to type in the names of the labels.

   The range labels are distributed across the miniature chart. The placement of the labels depends on the number of data points and the total number of labels. For example, if there are 36 data points plotted on the chart and 4 labels, a range label is displayed every 8 data points.

A range slider is added to the chart as defined.

### 3.2.1.4.3 Working with variable amounts of data

If the amount of data available for a chart may vary, for example, to accommodate the number of days in a month, you can configure the chart to only display the values that are available and to ignore blank cells at the end of a range. For example, if data is entered for each day in a month, when the month has 31 days, you want the chart to include the data for each of those days. When a month has 30 days, the chart should not display an empty value for day 31. You must set the range to include 31 days, but if the last cells are empty, you do not want them to appear on the chart.

**Note:**
Although the chart does not display all the data within the data range, the size of the range still affects the model's performance.

*To configure a chart for variable amounts of data*

1. Select the chart and open the "Properties" panel.
2. Click the Behavior view.
3. On the Common tab, select Ignore Blank Cells.
4. To prevent the chart from displaying empty series past the last non-empty series in a range, select In Series.
5. To prevent the chart form displaying empty values past the last non-empty value in a series, select In Values.

Empty cells at the end of a range for the series and/or values are not included in the chart.

## 3.2.1.5 Chart appearance properties

**Layout view**

Use the following table as a guide for setting the Appearance properties for chart layout. Note that some options are available only for specific chart types.

| Option | Description |
|---|---|
| Layout Tab | |
| Show Chart Back-ground | All<br><br>Select this option to include a solid background behind the chart. If this option is not selected, the chart is transparent. If you include a background, set the following options:<br><br>| Option | Description |<br>|---|---|<br>| Margin | Select the amount of space to allow between the edge of the background and the data |<br>| Horizontal Gap | For Sparkline charts, set the amount of space between the series labels and the plot area |<br>| Vertical Gap | For Sparkline charts, set the amount of space between each series of data |<br><br>**Tip:**<br>You can set a color for the chart background on the color tab. |

| Option | Description |
|---|---|
| Plot Area | All except Tree Map charts<br><br>For the plot area (the area bounded by the chart axes), set the following options:<br><br><table><tr><td>**Option**</td><td>**Description**</td></tr><tr><td>Show Fill</td><td>Applies a background to the plot area.</td></tr><tr><td>Show Border</td><td>Applies a border around the plot area.</td></tr><tr><td>Border Thickness</td><td>If Show Border is selected, select a thickness for the border.</td></tr></table> |
| Title Area | All<br><br>For the area behind the title, set the following options:<br><br><table><tr><td>**Option**</td><td>**Description**</td></tr><tr><td>Show Fill</td><td>Applies a background to the title area.</td></tr><tr><td>Show Border</td><td>Applies a border around the title area.</td></tr><tr><td>Border Thickness</td><td>If Show Border is selected, select a thickness for the border.</td></tr></table> |
| Enable Legend | All except Sparkline, Vertical Bullet, and Horizontal Bullet charts<br><br>Select this option to display a legend for the chart. For more information about configuring legends, see Adding legends to charts. |

### Series tab

Use the following table as a guide for setting the Appearance properties for chart series. Note that some options are available only for specific chart types.

**Note:**
The Series tab is not available for Area, Stacked Area, and Filled Radar Chart components.

| Option | Description |
|---|---|
| Series Tab | |

| Option | Description |
|---|---|
| Series column | All except Sparkline charts<br><br>Lists the series that have been defined for the chart.<br><br>**Note:**<br>If, on the General view, the By Series option is not selected and set up for the chart, this column is empty. |
| Type column | Combination chart only<br><br>Select the type of marker to use for this series:<br>• Column<br>• Line |
| Data Point column | Pie chart only<br><br>Select each data point and specify a color. This sets the colors of the wedges in the Pie chart. |
| Shape column | Line, Combination, Radar, and XY chart components only.<br><br>Select one of the following marker symbols to appear on the series data points:<br>• circle<br>• diamond<br>• star<br>• triangle<br>• X |
| Line column | Line, Combination, and Radar chart components<br><br>Click the Color Selector icon ( ) and select a color for the line that connects the data points. |
| Fill column | All except Bullet, Tree Map, Candlestick, and Line charts<br><br>Click the Color Selector icon ( ) and select a color to represent each series. |
| Performance Color column | Bullet charts only<br><br>Click the Color Selector icon ( ) and select a color to represent the actual performance values. |

| Option | Description |
|---|---|
| Comparative Marker Color column | Bullet charts only<br><br>Click the Color Selector icon ( 🔲 ) and select a color to represent the target data values. |
| Scale High Color column | Bullet charts only<br><br>Click the Color Selector icon ( 🔲 ) and select a color to represent high value marker color. |
| Scale Low Color column | Bullet charts only<br><br>Click the Color Selector icon ( 🔲 ) and select a color to represent low value marker color. |
| High Color column | Tree map only<br><br>Click the Color Selector icon ( 🔲 ) and select a color to represent the color for high values. |
| Low Color column | Tree Map only<br><br>Click the Color Selector icon ( 🔲 ) and select a color to represent the color for low values |
| Line Thickness | Combination and Radar charts only.<br><br>Select a series and set the thickness for the lines that connect the data points.<br><br>**Note:**<br>For Combination charts, this option is available only when Line is selected in the Type column for the selected series. |
| Enable Markers | Combination charts only<br>Select this option to show data point markers on the line graph. |
| Enable Series Markers | Line charts only<br>Select this option to show the data point markers on the line graph. |

| Option | Description |
|---|---|
| Marker Size | XY, Radar, Bubble, Bar, Column, Line, and Combination charts only<br><br>Specify the size of the data point marker.<br><br>**Note:**<br>For Combination charts, marker size is set for both the Column Settings and the Line Settings. |
| Marker Gap | Stacked Bar and Stacked Column charts only<br><br>Specify the amount of space between the markers for each series. |
| Marker Overlap | Stacked Bar and Stacked Column charts only<br><br>Specify how much the bars or columns for each series overlap the bars or columns of the other series. If set to 100, they appear in the same bar or column space to make a single bar or column that changes color to show the second series. |
| Transparency | XY, Radar, Bubble, Bar, Column, Line, Filled Radar, Stacked Area, Area, Stacked Bar, Stacked Column, Candlestick, OHLC, Pie, and Combination charts only<br><br>Set the visibility of objects behind the chart or chart markers.<br><br>**Note:**<br>For Combination charts, transparency is set for both the Column Settings and the Line Settings. |
| Performance Marker Size | Bullet charts only<br><br>Specify the size of the marker that indicates the actual performance value. |
| Comparative Marker Size | Bullet charts only<br><br>Specify the size of the marker that indicates the target value. |
| Show Lines | Tree Map and Pie charts only<br><br>Specify if lines should be visible between the sections that show different series values. If this option is selected, specify the line thickness. |
| Positive Color | Candlestick and OHLC charts only<br><br>Specify a color for positive values. |
| Negative Color | Candlestick and OHLC charts only<br><br>Specify a color for negative values. |

### Axes tab

Use the following table as a guide for setting the Appearance properties for chart axes. Note that some options are available only for specific chart types.

**Note:**

The Axes tab is not available for Pie and Sparkline charts.

| Option | Description |
|---|---|
| Axes Tab | |
| Enable Vertical Axis | All except Horizontal Bullet charts<br><br>Select this option to include a line along the vertical axis. If selected, you can specify the thickness and line color, and whether to show ticks to indicate major or minor values. |
| Enable Horizontal Axis | All except Filled Radar and Radar charts<br><br>Select this option to include a line along the horizontal axis. If selected, you can specify the thickness and line color, and whether to show ticks to indicate major or minor values. |
| Horizontal Gridlines | All except Bullet, Bar, Stacked Bar, and Stacked Column charts<br><br>Select this option to display gridlines for the horizontal axis. If selected, you can choose to display Major or Minor gridlines and set the thickness for the lines. |
| Vertical Gridlines | XY, Bar, and Bubble charts only<br><br>Select this option to display gridlines for the vertical axis. If selected, you can choose to display major or minor gridlines and set the thickness for the lines. |

### Text tab

Use the following table as a guide for setting the Appearance properties for chart text. In the Show column, select the checkbox for each text item you want to display on the chart. Then, select the text item and format the text appearance. Note that some options are available only for specific chart types.

**Note:**

The Series tab is not available for Area, Stacked Area, and Filled Radar charts.

| Option | Description |
|---|---|
| Text Tab | |
| Chart Title | All<br><br>Displays a main title for the chart. |

| Option | Description |
|---|---|
| Sub Title | All<br>Displays a secondary title for the chart. |
| Header Labels | Sparkline chart only<br>Displays labels above the columns in the chart. |
| Series Labels | Sparkline, Vertical Bullet, and Horizontal Bullet charts only<br>Displays the name for each data series. |
| Series Sublabels | Vertical Bullet and Horizontal Bullet charts only<br>Displays a secondary label beside the series label for each data set. |
| Start Value | Sparkline charts only<br>Displays the first value in the data set to the right of the plot area. |
| Low Value | Sparkline charts only<br>Displays the lowest value in the data set to the right of the plot area. |
| Vertical Axis Title | Vertical Bullet charts only<br>Displays a title along the vertical axis. |
| Horizontal Axis Title | Horizontal Bullet charts only<br>Displays a title along the horizontal axis. |
| Vertical Axis Labels | Vertical Bullet charts only<br>Displays value labels along the vertical axis. |
| Horizontal Axis Labels | Horizontal Bullet charts only<br>Displays value labels along the horizontal axis. |
| Vertical (Value) Axis Title | Stacked Area, Area, XY, Bubble, Column, Candlestick, OHLC, and Line charts only<br>Displays a title for the value scale along the vertical axis. |
| Vertical (Value) Axis Labels | Stacked Area, Area, XY, Bubble, Column, Candlestick, OHLC, Radar, Filled Radar, and Line charts only<br>Displays labels for values along the vertical axis. |

| Option | Description |
| --- | --- |
| Horizontal (Value) Axis Title | XY, Bubble, Stacked Bar, Bar charts only<br><br>Displays a title for the value scale along the horizontal axis. |
| Horizontal (Value) Axis Labels | XY, Bubble, Stacked Bar, Bar charts only<br><br>Displays labels for values along the horizontal axis. |
| Vertical (Category) Axis Title | Stacked Bar and Bar charts only<br><br>Displays a category title along the vertical axis. |
| Vertical (Category) Axis Labels | Stacked Bar and Bar charts only<br><br>Displays a label for categories along the vertical axis. |
| Horizontal (Category) Axis Title | Stacked Area, Area, Stacked Column, Column, Candlestick, OHLC, and Line charts only<br><br>Displays a category title along the horizontal axis. |
| Horizontal (Category) Axis Labels | Stacked Area, Area, Stacked Column, Column, Candlestick, OHLC, Radar, Filled Radar, and Line charts only<br><br>Displays labels for categories along the horizontal axis. |
| Mouse Over Values | All except Sparkline charts<br><br>Displays values when the user moves the mouse pointer over a data marker. |
| Legend | All except Sparkline, Vertical Bullet, and Horizontal Bullet charts.<br><br>Displays a legend that defines the symbols and markers in the chart. For more information about using legends, see Adding legends to charts. |
| Data Labels | All except Sparkline, Vertical Bullet, and Horizontal Bullet charts<br><br>Displays data labels on or around the chart markers. If the chart contains multiple series, you can specify if data labels are displayed for each series. For more information about using data labels, see Displaying data labels on charts. |

| Option | Description |
|---|---|
| Range Labels | Stacked Area, Area, Stacked Bar, Bar, Stacked Column, Column, Candlestick, OHLC, and Line charts only<br><br>If the Range Slider is enabled on the Behavior view, this option displays labels on the Range Slider. For more information about using the Range Slider, see Adding Range Sliders to charts.<br><br>**Note:**<br>The Range Labels ignore duplicate, sequential values in the label data. For example, if the labels are bound to cells in the spreadsheet where year values for the data are inserted, on the Range Slider the first occurrence of a year appears in a label and subsequent occurrences of that year are ignored. The next year value is displayed and subsequent occurrences for that year are ignored. |

**Color tab**

Use the following table as a guide for setting the Appearance properties for chart colors. For more information about using the "Color" dialog box to set component colors, see Setting colors for component elements.

| Option | Description |
|---|---|
| Color Tab | |
| Background Color | All<br><br>Set the color for the background area behind component elements. |
| Series | Radar, Bullet, Tree Map, Bubble, Bar, Candle, and OHLC charts only<br><br>Applies to the color of the markers that represent the data. You can also set the color for specific series values such as Performance, Comparative Marker, Scale High and Low for Bullet charts and High and Low values for Tree Map charts. |
| Slices | Area, Combination, Column, Pie, and Line charts only<br>Applies to the color of the markers that represent the data. |
| Title Area | All<br><br>Applies to the area around the title<br><br>You can set a different color for the fill and border. |

| Option | Description |
|---|---|
| Plot Area | All<br><br>Applies to the area where the data is plotted.<br><br>You can set a different color for the fill and border. |
| Legend Area | All<br><br>Applies to the area behind the legend. |
| Axes and Gridlines | All except Tree Map and Pie charts<br><br>Applies to the chart axes lines and gridlines.<br><br>You can set a different color for horizontal and vertical axes and gridlines, as well as for major and minor gridlines as appropriate for the chart. |
| Line Color | Pie charts<br><br>Applies to the lines between the slices of the pie. |

**Related Topics**

- To set up a chart
- Chart General properties
- Chart Drilldown properties
- Chart Behavior properties

### 3.2.1.5.1 Adding legends to charts

If you use a chart to show multiple series of data, you might want to add a legend to define the various markers used in the chart. When you add a legend, you can define the appearance and location of the legend. In addition, you can allow users to hide or show the data for a specific series at run-time. With this ability, users can choose to view all the data on the chart at once or to simplify the chart and view only some of the series data.

*To add a legend*

A Chart component is on the canvas.

1. Select the Chart component and open the "Properties" panel.
2. On the "Properties" panel, click Appearance > Layout.
3. Select Enable Legend and set the following options:

| Option | Description |
|---|---|
| Position | Specify a position for the legend in the Chart component. Select from the following options: Top, Left, Right, Bottom. |
| Vertical Offset | If Left or Right is chosen in Position, you can shift the legend vertically relative to its position. Type or select a value. Negative numbers shift the legend down and positive numbers shift it up. |
| Horizontal Offset | If Top or Bottom is chosen in Position, you can shift the legend horizontally relative to its position. Type or select a value. Negative numbers shift the legend to the left and positive numbers shift it to the right. |
| Show Fill | Adds a solid background color behind the legend. Click the Color Selector icon ( ) to specify a color for the background. |
| Show Border | Adds a border around the legend. Click the Color Selector icon ( ) to specify a color for the border. |
| Border Thickness | If Show Border is selected, type or select a value to change the border thickness. |
| Enable Hide/Show Chart Series at Run-time | Select this option to allow users to select specific series to show on the chart. If selected, users can click a checkbox beside the series name or the series name to display or hide the series values in the chart. |
| Interaction | If Enable Hide/Show Chart Series at Run-time is selected, select one of the following user interaction options:<br><br>• Checkbox - adds a checkbox in front of each series label in the legend. Users click the checkbox to show or hide the series.<br>• Mouse Click - Users click the series name to show or hide the series data on the chart. |

A legend is added to the Chart.

**3.2.1.5.2 Displaying data labels on charts**

Data labels allow you to display data values or labels directly on or around the data markers. To show data labels overlaid on the markers, you first mark them to be displayed on the Appearance > Text tab. Then, you can configure their position, contents, and label separators as required.

*To configure data labels*

A Chart component is placed on the canvas.

1. Select the chart component and open the "Properties" panel.
2. Click Appearance > Text.
3. In the Show column beside Data Labels, select the checkbox.

   If the chart contains multiple series, you can enable and configure data labels for each series individually. For Combination charts, you must configure the data labels individually since Line and Bar markers have different properties.

4. In the "Format Text" area, set the text appearance properties.
5. In the Position list, select where you want the label to appear relative to the data marker.

   The options available depend on the type of chart and may include Center, Inside End, Outside End, Best Fit, Left, Right, Above, Below, Inside Base, and Outside with Leader Lines (Pie charts only). For Combination charts, if you select the Data Label option (instead of selecting the series), the Position list is not available. You must set the label position for each series in the Combination chart individually.

6. In the Offset lists, select values to adjust the label location more specifically by setting the X and Y offsets.
7. Depending on the type of chart, you can also specify what data to include in the label including the series name, Category Name, Value, Percentage, X Value, Y Value, Bubble Size, Size Value, and Color Intensity Value.
8. For some charts you can also choose a separator value to separate data in the label. In the Separator list, select a value or select Custom and, in the Custom box, type the value to use.

Data labels are displayed on or near the data markers as defined.

## 3.2.1.6 Chart alerts properties

You can set up alerts for the following Chart components:
- Bar
- Bubble
- Column
- Combo
- Line
- Radar
- Stacked Bar
- Stacked Column
- XY

To set up alerts, select the component and open the "Properties" panel. Then click the Alerts view, select the Enable Alerts checkbox and set the alert options. For more information about setting alert options, see Understanding Alerts.

**Related Topics**

• To set up selectors
• Selector general properties
• Selector behavior properties
• Selector appearance properties

## 3.2.1.7 Configuring drilldown behavior

The chart drill-down capability allows charts to behave as selectors, that is, when users click a part of the chart, it writes specific data to the embedded spreadsheet. That data can then be used by another component to display more detailed information.

For example, a Pie chart that shows annual sales could be configured to insert the monthly sales totals into specified destination cells. Then a Bar chart could use that data to display the monthly totals each time a piece in the Pie chart is clicked.

**Tip:**

To see an example of a model with drilldown behavior, click File  > Samples  and open the sample file Chart - Drilldown.

**Related Topics**

• To set up a chart
• Chart Drilldown properties
• To configure charts to drill down

### 3.2.1.7.1 To configure charts to drill down

A chart has been configured and bound to a series of data. The spreadsheet also contains more detailed information that can be drilled down to from the chart.

**Note:**

Drilldown options are not available for Area, Stacked Area, Horizontal and Vertical Bullet, Sparkline, Radar, or Filled Radar charts.

1. Select the chart you want to use to drill down and open the "Properties" panel.
2. Click the Drilldown view.
3. On the Drilldown view, select Enable Drilldown.

**Note：**

If the Enable Drilldown checkbox is not available, verify that the chart is bound to a range of data.

4. If the chart contains a series, in the Series Name Destination box, select a cell in the spreadsheet where the name of the series will be inserted.

5. In the Insertion Type list, select one of the following options to specify the structure of the data that will be inserted into the embedded spreadsheet when a selection is made:

| Option | Description |
|--------|-------------|
| Position | When a series is selected, the position of the value within the series is entered in the target cell. For example, if the series contains three cells, when the first one is selected, a 1 is entered in the destination cell. When the second is selected, a 2 is entered and for the final one, a 3 is entered. |
| Value | When a selection is made, the value in the source cell for that selection is entered in the destination cell.<br><br>For Bubble, OHLC, XY, Candlestick, and Tree Map charts, the value is based on the specified value set. For example, for a Tree Map chart, you might use the values for size or for color intensity. |
| Row | When a selection is made, the row of source data values corresponding to the selection is entered in the target row. |
| Column | When a selection is made, the column of source data values corresponding to the selection is entered in the destination column. |
| Status List | When a selection is made, a value of 1 is entered in the cell in the range representing that selection and a value of 0 is entered in the other cells of the target range. |

6. For Pie charts, skip this step. In the Series list, select a series to configure.

7. If the Insertion Type is set to Row, or Column, beside Source Data, click the Cell Selector icon (  ). Then, select the cells in the spreadsheet that contain the source data.

**Note：**

If the Insertion Type is set to Value, Position or Status List, the source data is determined by the selection in the chart.

8. For Bubble, XY, Candlestick, OHLC, and Tree Map charts , if Insertion Type is set to Value, in the Value Set list, select the value that will be inserted when a selection is made.

9. Beside the Destination box, click the Cell Selector icon (  ) and select the cells in the spreadsheet where the source data or value set will be inserted when a selection is made.

**Note：**

The destination range must be blank and large enough to store all the cells in the source range.

10. Under Interaction Options, in the Insert On list, select Mouse Click to insert the data when the user clicks the chart or Mouse Over to insert the data when the user moves the mouse pointer over the chart selection.

11. Under "Default Selection", in the Series list, select the series and, in the Item list, select the item that will be selected when the model loads.

The chart is configured to insert data into a destination range when a selection is made. The data in the destination range can now be used by another component in the model.

Place another chart on the canvas and configure it to display the data inserted into the destination range.

**Related Topics**

• Using Chart components
• Chart Drilldown properties
• Configuring drilldown behavior

## 3.2.1.8 Allowing users to adjust chart scales

When you design a chart based on dynamic data that can be entered or adjusted by users at run-time, you don't have complete control over those values and it can be difficult to set a reasonable scale. For many charts, you can define a manual scale and, then include a toolbar to allow users to adjust the scale values at run-time. These run-time tools allow users to create a custom scale without dealing with the mechanics or mathematics of custom scaling.

**Note:**
Run-time tools are not available for Pie, Tree Map, Horizontal and Vertical Bullet, or Sparkline charts.

When Run-time tools are enabled, a Run-time Tool icon ( ⊙ ) is available in the upper left corner of the chart. When users move the mouse pointer over this icon, the Run-time Tool menu opens.



Depending on which Run-time Toolbar options are selected, the menu can contain the following buttons:

| Button | Description |
|---|---|
| GROW | Sets the scale to Allow Zoom Out Only, which allows the scale to grow as data values increase, but doesn't' shrink when data values decrease. This setting minimizes the number of times the chart scale changes, but allows it to show all the data values when they increase.<br><br>This option is useful when users are trying different options that may push the scale limits and don't want to reset the scale each time, or when the chart is used in animations. |
| OFF | Turns off scaling so the chart uses the minimum and maximum data points as the minimum and maximum scale values. The chart continues using this scale even if the data changes. |
| AUTO | Sets the scaling behavior to Auto, so the minimum and maximum scale values automatically adjust to accommodate all data points. |
|  | When chart scaling is set to Off, the Focus Chart Data button forces the chart axes to rescale based on the current data. The chart then retains that scale even if the data subsequently changes. |
|  | The Reset Chart Scale button sets the scale values back to what they were when the model was opened. |

**Related Topics**

• To display the Run-time Tools menu on charts
• Using Chart components

**3.2.1.8.1 To display the Run-time Tools menu on charts**

A model containing a chart component is open on the canvas.

1. Click the chart component and open the "Properties" panel.
2. Click Behavior > Common .
3. Select the Enable Run-time Tools checkbox.
4. To customize which buttons are available on the toolbar menu, select any of the following options:

| Option | Description |
|---|---|
| Show Focus Button | Displays the Focus Chart Data button. |
| Show Reset Scale Button | Displays the Reset Scale button. |
| Show Scale Behavior Options | Displays the Grow, Off, and Auto buttons. |

**Note:**

If you deselect all the tool options, the Run-time Tools icon will not be available, even if Enable Run-time Tools is selected.

When the model runs, the Run-time Tools icon is available in the upper, right corner of the chart.

**Related Topics**

• Using the Properties panel
• Allowing users to adjust chart scales
• Chart Behavior properties

## 3.2.2 Using Container components

Containers group and display other components.

**Note:**

Container components are not available in Xcelsius Present.

Container components can be nested within each other to create multi-layer models. To avoid decreasing the model's performance, use only one layer of nesting, for example, a parent Tab Set component on each tab with no container components within the child containers.

**Canvas**

The Canvas container component is similar to the Panel container component, but it does not have any art, for example, background, borders, heading bar, and so on.

In design mode, the container is visible to allow the designer to work with the component, but when the model is run, the container is invisible so components in the container appear to be free floating. If the components in the Canvas container extend beyond the container borders, scrollbars are added.

**Panel Container**

The Panel Container component acts as a smaller canvas within the main canvas and can hold one or more components. Components in the panel container can be moved, added, changed or deleted. In

the "Object Browser" panel, to see the list of components within a panel container, click the Plus icon next to the Panel Container name.

**Note:**
The Panel2 Container component has the same functionality as a Panel Container, but with a different look.

To explore a sample model that includes a Tab Set component, click File > Samples and select Panel Container.

**Tab Set**
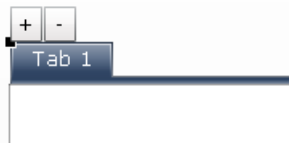
The Tab Set component acts as a smaller canvas within the main canvas and contains multiple tab views. Each view can contain one or more components, which can be linked to different data sets. To display a view, users click its corresponding tab.

When you configure the Tab Set component, you can increase or decrease the number of tab views by selecting the Tab Set component, and then clicking the Plus or Minus icons above the row of tabs. When the model runs, the Plus and Minus icons are not visible.

**Note:**
The Tab Set component functions as a single grouping of tabs. You cannot create sub-groups of the tabs within the component.

To see an example of a model with a Tab Set component, click File > Samples and open the sample file Tab Set.

## 3.2.2.1 To set up a container

A list of values is entered in the embedded spreadsheet.

1. Open the "Components" browser and drag a container onto the canvas.
2. If you add a Tab Set component, add and label the required tabs.
3. Select the container and open the "Properties" panel.
4. On the "Properties" panel, click the General view and enter the titles and labels for the container elements, for the Tab Set component, also set the location for the tabs. For more information about the available options, see Container general properties .
   The container is updated with the changes.
5. Click the Behavior view and set the options for how the component functions in the model including handling variable amounts of data, scaling, and animations. For more information about the available options, see Container behavior properties.

6. Click the Appearance view and set the visual characteristics of each container element. For more information about the appearance options, see Container appearance properties.

7. From the "Components" Browser, drag components onto the container canvas and configure the components as you would for components on the main canvas.

8. Click File > Save and enter a location and filename for the model. Click OK.

The container is added to the model and configured. To see how the model will look at run-time, on the Toolbar, click Preview.

## 3.2.2.2 Container general properties

Use the following table as a guide for setting the Container component properties on the General view. Note that some options are available only for specific container types.

| Option | Description |
|---|---|
| Tab Alignment | Tab Set only<br><br>Specify whether the tabs appear to the right, center, or left of the tab set canvas. |
| Label | Tab Set canvases only<br><br>Type a label for the tab or click the Cell Selector icon ( ) to link the label to a cell in the embedded spreadsheet.<br><br>**Note:**<br>To select a Tab Set canvas, on the component, click the tab to select it and then click the canvas area. |
| Title | Panel containers only<br><br>Type a title for the panel container or click the Cell Selector icon ( ) to link the label to a cell in the embedded spreadsheet.<br><br>**Note:**<br>You can configure the title format on the Appearance view. |

**Related Topics**

• To set up a container
• Container behavior properties
• Container appearance properties

### 3.2.2.3 Container behavior properties

Use the following table as a guide for setting the Behavior properties for containers. Note that some options are only available for specific container types.

| Option | Description |
|---|---|
| Common Tab | |
| Selected Item | Tab Set component only<br><br>Select the tab that will be open when the model loads. |
| Horizontal Scroll Bar | Tab Set canvases, Canvas, and Panel components only<br><br>Specify whether a horizontal scroll bar is available on the canvas always (On), never (Off), or if the contents of the canvas exceeds its width (Auto). |
| Vertical Scroll Bar | Tab Set canvases, Canvas, and Panel components only<br><br>Specify whether a vertical scroll bar is available on the canvas always (On), never (Off), or if the contents of the canvas exceeds its height (Auto). |
| Dynamic Visibility | Tab Set, Canvas, and panel components<br><br>**Note:**<br>You cannot set dynamic Visibility for individual subcanvases on the Tab Set component.<br><br>This option allows you to specify conditions that control when the container is visible in the model. For more information about using dynamic Visibility, see Managing the Visibility of Components. |
| Animations and Effects Tab | |
| Entry Effect | Tab Set, Canvas, and Panel components only<br><br>**Note:**<br>You cannot set entry effects for individual subcanvases on the Tab Set component.<br><br>If dynamic visibility is enabled, select how you want the container to appear on the canvas when triggered. You can select an entry effect and specify how long you want the components appearance to take. For more information about dynamic visibility, see Managing the Visibility of Components |

**Related Topics**

• To set up a container
• Container general properties
• Container appearance properties

## 3.2.2.4 Container appearance properties

Use the following table as a guide for setting the Appearance properties for containers. Note that some options are available only for specific container types.

| Option | Description |
|---|---|
| Text Tab | |
| Show Text | Tab Set and Panel containers<br><br>Lists the elements that can have text. To hide the text for an element, deselect it.<br><br>**Note:**<br>You cannot deselect the tab labels on Tab Set components. |
| Format Selected Text | Tab Set and Panel containers<br><br>The settings in this area allow you to format the text for the selected text element.<br><br>**Note:**<br>If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |
| Color Tab | |
| Background Color | All except Canvas containers<br><br>Set the color for the background area behind the sub-canvas. |
| Panel Color | Panel containers<br><br>Set the color for the sub-canvas on the panel. |
| Tab Backgrounds | Tab Set containers<br><br>Set the color for tabs on the container. You can set a different color for when the tab is not active (Default color), when the mouse pointer moves over the tab (Over color), and when the tab is active (Selected color). |

| Option | Description |
|---|---|
| Scroll Bar | Tab Set sub-canvas, Canvas, and Panel containers<br><br>Set the color for the following parts of the scroll bar:<br>• Track<br>• Thumb<br>• Button<br>• Button Symbol |
| Labels | Tab Set container<br><br>You can set a different color for when the tab is not active (Default color), when the mouse pointer moves over the tab (Over color), and when the tab is active (Selected tab).<br><br>**Note:**<br>You can also set the label text color on the General view. |

**Related Topics**

• To set up a container
• Container general properties
• Container behavior properties

## 3.2.3 Using Selector components

Selector components allow you to pick an item from many members or from a list and insert the selected item's row, position, value, label, and so on into another row or cell in the embedded spreadsheet. Other components can then retrieve that information to complete other tasks.

**Note:**
For information about the functionality of Selector components, on the component's "Properties" panel, click the Information icon (  ).

## Accordion Menu
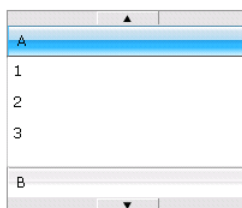


The Accordion Menu is a two-level menu that lets users first select a category and then select from items within that particular category.

### Note:

This component is not available in Xcelsius Present.

### Tip:

To see an example of a model with an Accordion Menu component, click File > Samples and open the sample file Accordion Menu.

## Check Box



A standard user-interface component where users toggle between two states: checked and unchecked.

## Combo Box
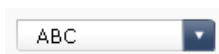


A standard user-interface component that drops down a vertical list of items when it is clicked. Users can then select an item from the list.

## Filter



The Filter component looks at a range of cells with multiple fields of data and categorizes them by unique data entries. The Filter sifts through the data range and inserts data corresponding to the list selections.

### Tip:

To see an example of a model with a Filter component, click File > Samples and open the sample file Filter.

### Fisheye Picture Menu



With the Fisheye Picture Menu, users select from a set of pictures or icons. As the mouse is moved over each item in the menu, the item is magnified. The closer the mouse is to the center of the item, the more the item is magnified. This creates an effect similar to that of a fish-eye lens.

**Note:**
This component is not available in Xcelsius Present.

### Icon



The Icon can be used as a selector or display component. As a selector, it functions similar to the Check Box component. It can represent the actual value contained in one cell and be compared to its target value in another cell.

The Icon component can also be set to change color depending on its value relative to the target value, which is an Alert. For more information about alerts, see Understanding Alerts.

At the same time, you can use the Icon to activate and display other components. For more information about controlling component visibility, see Managing the Visibility of Components.

**Note:**
To configure the Icon component as a display-only component, click the Appearance view and deselect Show On/Off. User will not be able to select the icon.

### Label Based Menu



The Label Based Menu component lets users select items from a vertical or horizontal grouping of buttons.

### List Box
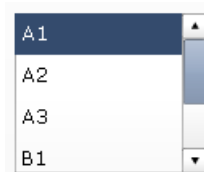


A standard user-interface component that lets users select items from a vertical list.

## List Builder
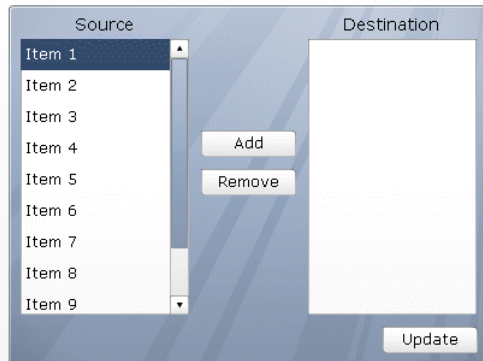


The List Builder provides a way for users to build their own set of data at run-time. This data set can then be used to populate another component. The List Builder consists of a "Source" list containing all possible selections, a "Destination" list containing the selected items, and an Update button. Users move items between the "Source" and "Destination" lists in one of the following ways:

• Double-clicking items in either the "Source" or "Destination" list to move the item to the other list.
• Dragging items from one list to another.
• Using the Add and Remove buttons.

When the Update button is clicked, the items in the "Destination" list are inserted into the destination range to be used by other components. To change the order of items in the "Destination" list, drag an item up or down in the list.

### Note:
This component is not available in Xcelsius Present.

### Tip:
To see an example of a model with a List Builder component, click File > Samples and open the sample file List Builder.

## List View



The List View component has the same functionality as the Table component, but lets the user sort the columns and adjust the width of the columns in the exported SWF file.

### Play Selector



The Play Selector component sequentially inserts one row or column from a defined range into the destination cells you selected. You can link the destination cells to a chart so the chart data changes each time the play selector inserts a new row or column. The Play Selector component can display a large amount of data with a movie effect, which lets users view the data without clicking each selection.

**Note:**
This component is not available in Xcelsius Present.

### Push Button



The Push Button component inserts specific data each time it is clicked. It can be used to allow users to restore Single Value components to their default values without resetting the values for the entire model or to create a pop-up window that appears when the button is pushed.

You can configure the Push Button to set the values of one or multiple cells to specific values when users click the button. The values only change when the user clicks the button, so users have more control over when the data is copied to the destination cells.

### Radio Button
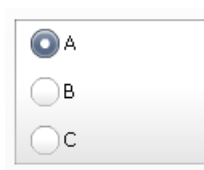


The Radio Button component lets users select from a vertical or horizontal group of selections.

### Scorecard



The Scorecard component allows you to display visual alerts in a grid. At run-time, users can click column headings to sort the grid according to the column's data. This component is similar to a List

View selector, but it includes options to enable and configure alerts in columns and to add headers that allow users to sort the columns at run-time.

Alert levels can be displayed with cell background colors, font colors, or alert icons with or without values.

### Sliding Picture Menu
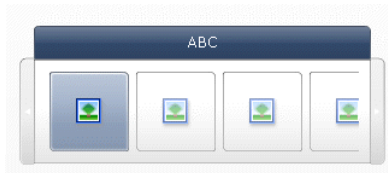


With the Sliding Picture Menu, users select from a set of icons or pictures. The users can use arrows to scroll through the icons or the menu can be configured to scroll through the icons as the user moves the mouse.

**Note:**

This component is not available in Xcelsius Present.

**Tip:**

To see an example of a model with a Sliding Picture Menu component, click File > Samples and open the sample file Sliding Picture Menu.

### Spreadsheet Table



The Spreadsheet Table component is a what-you-see-is-what-you-get (WYSIWYG) representation of any group of cells from your spreadsheet.

**Note:**

The Spreadsheet Table component can be used as a display component as well as a selector component. As a display component, the spreadsheet table is a graphic representation of a range of cells in the spreadsheet. To use the spreadsheet table as a display component, click the Cell Selector icon (  ) beside Display Data and select a range of cells to display from the spreadsheet. On the Behavior view, click Deselect All. Users will not be able to select rows in the table. To use the spreadsheet table as a selector component, after setting the Display Data range, set the Insert Option to rows.

### Ticker
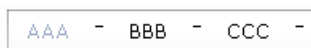


The Ticker component displays horizontally scrolling text in your model. Scrolling stops when the user moves the mouse pointer over the labels.

**Toggle Button**

Off
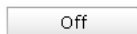
A standard user-interface component that lets users toggle between two states: on and off.

**Related Topics**

• To set up selectors

## 3.2.3.1 To set up selectors

A list of values is entered in the embedded spreadsheet and a Selector component has been placed on the canvas.

1. Select the component and open the Properties panel.
2. On the "Properties" panel, click the General view and enter the titles and labels for the selector elements, then link the selector to the data in the spreadsheet. For more information about the available options, see Selector general properties.

   The selector is updated with the changes.

3. Click the Behavior view and set the options for how the component functions in the model including handling variable amounts of data, scaling, and animations. For more information about the available options, see Selector behavior properties.
4. Click the Appearance view and set the visual characteristics of each selector element. For more information about the appearance options, see Selector appearance properties.
5. If applicable, click the Alerts view to set up notifications of when specified values have been reached. For more information about alerts, see Selector alerts properties.
6. To create effects based on the setting for the selector, add other components to your model and link them to the cells where the selector stores data.
7. Click File > Save and enter a location and filename for the model. Click OK.

The selector is added to the model and configured. To see how the model will look at run-time, on the Toolbar, click Preview.

**Related Topics**

• Using the Properties panel

## 3.2.3.2 Selector general properties

Use the following table as a guide for setting the Selector component properties on the General tab. Note that some options are only available for specific selector types.

| Option | Description |
|---|---|
| **"Titles "** | |
| Title | All except Icon, toggle Button, spreadsheet Table, Play Selector, and Push Button components |
| | The main title for the selector. For the List Builder component, you can also specify titles for the "Source" list and "Destination" list. |
| | **Note:** |
| | You can change the location and format of the title on the Appearance view. |
| Labels | All except Accordion menu, Check Box, List View, Spreadsheet Table, Play Selector, Push Button, and Filter components |
| | Sets the labels that identify selector elements. Click the Cell Selector icon ( ) to select the label text from the embedded spreadsheet or click the Manual Edit icon ( ) to type the label text. For the List Builder component, you can also specify labels for the Add Button, Remove Button, and Update Button. |
| | **Note:** |
| | The Manual Edit icon ( ) does not apply to the Icon component. |
| Value Labels | Ticker component only |
| | The value labels display the values associated with each label. Click the Cell Selector icon ( ) to select the value labels from the embedded spreadsheet . |
| Display Data | Spreadsheet Table and List View components only |
| | The range of data that appears in the component. Click the Cell Selector icon ( ) to select the range of cells from the embedded spreadsheet. |
| Display Options: Number of Filters | Filter component only |
| | Specifies the number of drop-down selectors available for setting filters. |
| Display Value | Icon component only |
| | The selected value is displayed in a tooltip when the user moves the mouse pointer over the component. Type a value or click the Cell Selector icon ( ) to select the label text from the embedded spreadsheet. |
| | **Note:** |
| | The value must be numeric. If a non-numeric value is entered, a zero is displayed. |

| Option | Description |
|---|---|
| Images | Fisheye Picture Menu and Sliding Picture Menu components only<br><br>Set the image files used in the component. Select one of the following:<br><br>• Embedded - stores a copy of the image files in the model. Click Import to select the file to embed.<br><br>**Note:**<br>The order that images appear in the menu is determined by the order they are imported. Import the images in the order you want them to appear in the menu.<br><br>• By URL - references the specified URL to load the image files. Type the URL or click the Cell Selector icon ( 🔲 ) to link to a cell in the spreadsheet. |
| Data Insertion | All<br><br>The settings in this section define the type of data the selector controls, as well as the source and destination locations. When a selection is made, data is copied from the source location to the destination location. If the data in the source location changes after a selection is made, the data in the destination location is not automatically updated.<br><br>**Note:**<br>For the Scorecard component, the Rows are Selectable option must be selected on the Behavior view to allow users to select rows to insert. If that option is not selected, users cannot interact with the Scorecard.<br><br>Some selector components can be configured to insert multiple data items with a single selection. For more information about multiple insertions, see Configuring selectors for multiple insertions.<br><br>**Note:**<br>The Ticker component can be set up as a display or selector component. To set it as a selector component, select the Data Insertion checkbox and set the options. |
| Insertion type | All<br><br>Specifies the structure of the data that is inserted when a selection is made. Select one of the following options: Position, Label, Value, Row, Column, Filtered Rows, or Status Lists .<br><br>For a description of each Insertion Type, see Understanding insertion types . |

| Option | Description |
|---|---|
| Source Data | All<br><br>Specifies the location of the source data for selections. Click the Cell Selector icon (  ) to select the range from the spreadsheet. For Check Box, Icon, and Toggle Button components, click the Manual Edit icon (  ) to manually enter values.<br><br>**Note:**<br>If the Insertion Type is set to Position, Label, or Status List, source data cells are not available. |
| Destination | All<br><br>Specifies the location in the spreadsheet where the source data will be inserted. Click the Cell Selector icon (  ) to select the range in the spreadsheet.<br><br>**Note:**<br>The required size of the destination range varies according to the structure selected in Insertion Type. For structures that use columns or rows of data, be sure to select a range that is large enough to contain your largest column or row of data. |
| Clear Destination When No Selected Item | All except Play Selector, Push Button, Toggle Button, and Icon components<br><br>If a selector is in a "no selection" state, when this option is selected, any existing data in the destination location is deleted. If this option is not selected, the data remains in the destination location until another selection is made. |
| Insert On | All except Push Button, Toggle Button, and Icon components<br><br>Select one of the following options to specify when data is inserted into the destination location:<br>• Data Change and Interaction - data is inserted whenever the data changes or when the user makes a selection.<br>• Interaction Only - data is inserted only when the user makes a selection. |
| Orientation | Label Based Menu and Radio Button components only<br><br>Specifies the orientation for the selector. Select either Horizontal or Vertical. |
| Categories | Accordion Menu component only<br><br>Specifies the categories used on the component. Click the Plus icon to add categories and then enter the category name, labels and source data |
| Name | Accordion Menu component only<br><br>Specifies the category name for the item selected in the categories list. Type a name or click the Cell Selector icon (  ) to select the name from the spreadsheet. |

| Option | Description |
|---|---|
| Labels | Accordion Menu component only<br><br>Specifies the labels for items within the selected category. Type a label or click the Cell Selector icon (  ) to select the label from the spreadsheet. |
| Source Data | Accordion Menu component only<br><br>Specifies the source data associated with the labels for the selected category. Click the Cell Selector icon (  ) to select the label from the spreadsheet. |
| Category Label Destination | Accordion Menu component only<br><br>Specifies the target cells for the specified category. Click the Cell Selector icon (  ) to select the label from the spreadsheet. |

**Related Topics**

• To set up selectors
• Selector behavior properties
• Selector appearance properties
• Selector alerts properties

### 3.2.3.2.1 Configuring selectors for multiple insertions

The following selectors can be configured to retrieve source data from multiple locations and insert the data into multiple destination locations with a single selection:

• Spreadsheet Table
• Ticker
• Scorecard
• Radio button
• List Builder
• List Box
• Label Based Menu
• Sliding Picture menu
• Fisheye Picture menu
• Combo box
• Play Selector

When you set up a selector for multiple insertions, you specify the source and destination for each chunk of data the same way you would set up the data source and destination for a single insertion. For each chunk, you can define the insertion type (row, column, label, position, status).

**Note:**

The insertion type, Filtered Rows, is not supported when a selector is configured for multiple insertions.

*To set up multiple insertion behavior*

A selector that supports multiple insertions is placed on the canvas.

1. Select the component and open the "Properties" panel.
2. On the General view, under "Data Insertion", click the Plus icon ( ⊞ ) to add the number of data items you want to insert with each selection.
3. In the list of insertion items, select the first item and set the following options:

| Option | Description |
|---|---|
| Name | Enter a name for this data item |
| Insertion Type | Select the insertion type for this data item.<br><br>For a description of each Insertion Type, see Understanding insertion types .<br><br>**Note:**<br>When multiple insertion is used, Filtered Rows is not available as an insertion type. |
| Source Data | Click the Cell Selector icon ( 📍 ) and select the source data location for this data item.<br><br>**Note:**<br>If the Insertion type is set to Label or Position, the source data is set as the selected item and this box is not available. |
| Destination | Click the Cell Selector icon ( 📍 ) and select the destination data location for this data.<br><br>**Note:**<br>When a selection is made, if the source data location for a data item is empty, the destination location for that item will be blank. |

**Related Topics**

• Using the Properties panel

## 3.2.3.3 Selector behavior properties

Use the following table as a guide for setting the Behavior properties for selectors. Note that some options are only available for specific selector types.

| Option | Description |
|---|---|
| Common Tab | |
| Interaction Options | Accordion, Fish Eye, Icon, Sliding Picture, Label Based Menu, List Box, Ticker, and Play Selector components only |
| | Specifies how the component responds when users interact with it. For example, when the mouse passes over it, when it is clicked, and so on. |
| Slider Method | Sliding Picture Menu component only |
| | Specifies how the menu scrolls through the thumbnails. Select one of the following: |
| | • Buttons — user clicks buttons at each end of the menu to scroll. |
| | • Mouse — user moves the mouse across the thumbnails to scroll. |
| Slider Amount | Sliding Picture Menu component only |
| | Specifies how far the slider moves. Select one of the following options: |
| | • One — scrolls through thumbnails one at a time |
| | • Page — scrolls through thumbnails a page at a time. The number of thumbnails on a page is determined by the width of the component. |
| Scroll Speed | Sliding Picture Menu component only |
| | Adjusts the speed of the slide behavior as the user scrolls through the thumbnails. |
| Slide Speed | Accordion Menu component only |
| | Specifies how fast categories expand when the user clicks the category label. Move the speed slider to adjust the speed. |
| Play Time (seconds) | Play Selector component only |
| | Specifies the length of time the sequence plays. Select the number of seconds from the list. |
| Auto Play | Play Selector component only |
| | If selected, the Play Selector starts automatically when the model runs. |
| Auto Rewind | Play Selector component only |
| | If selected, the Play Selector rewinds itself automatically when the sequence has finished playing. |
| Auto Replay | Play Selector component only |
| | If selected, the Play Selector automatically restarts the sequence when if finishes playing it. |

| Option | Description |
| --- | --- |
| Insert On | Fish Eye, Icon, Sliding Picture, Label Based Menu, List Box, and Ticker components only<br><br>Specifies when source data is copied to the destination location. Select Mouse Click or Mouse Over. For Label Based Menu components, if the Always Expanded option is selected, the Insert On option is not available. |
| Zoom Size | Play Selector component only<br><br>Specifies the size of the popup effect when the mouse moves over an image. Slide the size slider to adjust the size. |
| Zoom Speed | Play Selector component only<br><br>Specifies the speed that images popup on the selector when the mouse moves over the images. Slide the speed slider to adjust the speed. |
| Always Expand-ed | Label Based Menu component only<br><br>If selected, the menu is static (always displays the available labels). If not selected, you must specify what will trigger the menu to open and the direction the submenu will appear.<br><br>**Note:**<br>If this option is selected, the Insert On option is not available. |
| Expand On | Label Based Menu component only<br><br>Specifies how the menu is triggered to open. Select either Mouse Click or Mouse Over. |
| Expand Direction | Label Based Menu component only<br><br>Specifies the direction the menu expands when its opened.<br><br>**Note:**<br>The available options depend on the Orientation setting on the General view. When the orientation is set to Horizontal, the menu only expands left and right. When the orientation is set to Vertical, the menu can expand in combinations of up and down and left, center, and right. |
| Open Animation | Label Based Menu component only<br><br>When selected the menu opening is animated, that is, the menu items appear to unfold one by one. |
| Ticker Options | Ticker component only<br><br>In this area, you can set options specific to the Ticker component. |

| Option | Description |
|---|---|
| Item Separator | Ticker component only<br><br>Specifies the separator character used between items on the Ticker. |
| Scroll Direction | Ticker component only<br><br>Specifies the direction the data scrolls across the ticker. Select Left or Right. |
| Scroll Speed | Ticker component only<br><br>Specifies how fast the data scrolls across the ticker. Slide the speed slider to adjust the speed. |
| Allow Column Sorting | Scorecard component only<br><br>Select this option to allow users to sort the Scorecard at run-time. If selected, users can click a column heading to sort the data in that column. |
| Selected Item: Rows are Selectable | Scorecard component only<br><br>Select this option to use the Scorecard as a selector. When selected, users can click a row to insert the associated data into a defined destination location. If this option is not selected, the Scorecard will not work as a selector even if the Data Insertion options are configured on the General view. |
| Selected Item : Category | Accordion component only<br><br>Specifies the category that is open by default with the model runs. Select the category based on its relative position in the list of categories. If you select No Selection, an item is not selected until the user makes a selection. |

| Option | Description |
|---|---|
| Selected Item: Type | Ticker, Radio Button, List Builder, List Box, Label Based menu, and Combo Box components only<br><br>Specifies the type of data that will be matched to determine the default selection. If a match is not found, the selection is set to none.<br><br>Choose one of the following options:<br><br>See sub-table below |
| Selected Item : Item | All except Push Button, Toggle Button, Icon, Filter, and Play Selector components<br><br>Specifies the item that is selected by default when the model runs. Select the item based on its relative position in the list of items. If No Selection is selected, an item is not selected until the user makes a selection.<br><br>**Note:**<br>For the List Builder, the selected items are added to the Destination list, but are not added to the destination cells until the user clicks Update. To insert the selected items into the destination cells at run-time, select the Insert Items at Run-time option. |
| Selected Item: Insert Selected Item | Ticker, Radio Button, List Box, Label Based menu, and Combo Box components only<br><br>Specifies a location to store the selected item value.<br><br>**Tip:**<br>To reset a selector component to a "no selection" state, add another selector to set this value to None when Insertion Type is set to Label and -1 when its set to Position. |

Sub-table for Selected Item: Type:

| Option | Description |
|---|---|
| Label | The data in the source location is matched to the component's labels. If the source data is set to None, an item is not selected. |
| Position | The position of each selection item for the component is assigned a number value starting from 1.The data in the source location is matched to the position numbers.<br><br>If the source data is set to -1, an item is not selected. |
| Dynamic | The position of each selection item is assigned a number starting from 0. The data in the source location is first matched to the component's labels. If a match is not found, the data is matched to the position number. If a match is still not found, the first item is selected. |

| Option | Description |
|---|---|
| Selected Item: Insert Items at Runtime | List Builder only<br><br>Select this option if you want to pre-populate the List Builder Destination list and insert the selected items into the destination cells. If selected, the items selected in the Item box are added to the Destination list on the component and inserted into the destination cells in the embedded spreadsheet when the model loads at run-time. |
| Row Selectability | Spreadsheet Table component only<br><br>Determines whether users can select specific rows in the table. By default, all rows are selectable. To prevent a row from being selected, deselect the checkbox beside the row number. To set the selectability for all rows in the table, select or deselect the checkbox beside Row. |
| Ignore Blank Cells | All except Check Box, Icon, Toggle Button, and List Builder components<br><br>If selected, the component does not display blank cells past the last non-empty Label. This option is useful when the number of selections in the component varies. |
| Dynamic Visibility | All<br><br>This option allows you to specify conditions that control when the selector is visible in the model. For more information about using dynamic Visibility, see Managing the Visibility of Components. |
| Animations and Effects Tab | |
| Entry Effect | All<br><br>If dynamic visibility is enabled, select how you want to the chart to appear on the canvas when triggered. You can select an entry effect and specify how long you want to components appearance to take and, for some selectors, whether the component makes a sound when it appears. For more information about dynamic visibility, see Managing the Visibility of Components . |

**Related Topics**

• To set up selectors
• Selector general properties
• Selector appearance properties
• Selector alerts properties

### 3.2.3.3.1 Understanding insertion types

When you configure a Selector component, you set it up to insert specific data into the embedded spreadsheet. That data can then be used by other components. Depending on what you want to do with the data, you can insert values from the source to the target cells. You may also want to insert the selection's position in a list, the label applied to the data, or even a status or "on/off" value.

The following table describes each of the Insertion types available:

| Insertion Type | Description |
| --- | --- |
| Position | The selection's position in a list of items is written to the target cell. For example, if the second item in a list is selected, the number two (2) is inserted in the target cell. |
| Label | The label specified for the selection is written to the target cell. For example, if B is selected from the options A, B, and C, the label "B" is inserted in the target cell. This is useful when labels can change at runtime and the labels are used for a subsequent data search. |
| Value | A value in the specified source cell is written to the target cell. The number of cells specified in the source data range needs to match the number of labels displayed in the component. |
| Row | A specified row from the source data is written to the target row. |
| Column | A specified column from the source data is written to the target column. |
| Filtered Rows | A specified range of rows from the source data is written to the target range. |
| Status Lists | A 1 is entered in the target cell for the selection and a 0 is entered in the target cells for all other items in the list. |

## 3.2.3.4 Selector appearance properties

## Layout tab

Use the following table as a guide for setting the Appearance properties for selector layout. Note that some options are available only for specific selector types.

| Option | Description |
|---|---|
| Layout Tab | |
| Images : Sizing Method | Fish-eye Picture and Sliding Picture Menu components only<br><br>Specifies how images are sized to fit the thumbnail area. Select one of the following options:<br>• Scale — images retain their aspect ratio and may not completely fill the available space in both directions.<br>• Stretch — images are sized to fit within the thumbnail space exactly. |
| Images : Width | Fish-eye Picture and Sliding Picture Menu components only<br><br>Specifies the width of the thumbnail area in pixels. |
| Images : Height | Fish-eye Picture and Sliding Picture Menu components only<br><br>Specifies the height of the thumbnail area in pixels. |
| Thumbnails : Horizontal Margin | Fish-eye Picture and Sliding Picture Menu components only<br><br>Specifies the horizontal spacing between thumbnail images in pixels. |
| Thumbnails : Vertical Margin | Fish-eye Picture and Sliding Picture Menu components only<br><br>Specifies the vertical spacing between the thumbnail images and the area border in pixels. |
| Number of Labels Displayed | Combo Box and Filter components only<br><br>Specifies the number of labels available in the list or menu. If more labels are defined for the component, users can scroll down to see the additional labels. Enter a number between 2 and 50. |
| Filter Gap | Filter component only<br><br>Specifies the amount of space between each filter list on the component. |
| Marker Size | Radio Button component only<br><br>Specifies the size of the radio button. Select a size between 1 and 300. |
| Horizontal Margin | Radio Button component only<br><br>Specifies the distance between the radio buttons and labels and the left and right edges of the component. |

| Option | Description |
|---|---|
| Vertical Margin | Radio Button component only<br><br>Specifies the vertical distance between radio buttons. |
| Enable Background | Radio Button component only<br><br>Specifies whether the background behind the buttons is visible. If selected, you can set the transparency level for the background. |
| Button Separation | Label Based Menu component only<br><br>Specifies the amount of space between label tabs. |
| Auto Replay | Play Selector component only<br><br>Specifies which elements are displayed on the component. Select the appropriate checkbox to display the following elements:<br><br>{ table below } |
| List Transparency or Transparency | Icon, Label Based Menu, List Box, Radio Button, Toggle Button, Play Selector components only<br><br>Specifies whether objects behind the component are visible. A transparency of 0 means that users cannot see objects behind the component. A transparency of 100 means that the component is completely transparent and invisible to users.<br><br>**Note:**<br>List Transparency applies to the drop-down list portion of the component only. |
| Show Ticker Background | Ticker component only<br><br>Specifies whether the background behind the ticker labels is visible. |

Table inside Auto Replay row:

| Option | Description |
|---|---|
| Show Background | Determines whether the background behind the controls is visible. |
| Show Progress Indicator | Determines whether the progress slider is visible. |
| Show Rew/Fwd | Determines whether fast forward and rewind buttons are available. |
| Show Prev/Next | Determines whether previous and next buttons are available. |

| Option | Description |
|---|---|
| Show Button Background | Push Button component only<br><br>Specifies whether the background behind the button label is visible. If selected, you can also set the transparency level by moving the slider to the right for more transparency and to the left for less transparency. |
| Custom Column Widths | List View and Scorecard components only<br><br>By default, the List View component adjusts the size of the columns to fit the size of the source data. If you want to adjust the column size manually, select this option and click the Manual Edit icon ( 📝 ) to set the column widths in pixels. |
| Show Vertical Gridlines | List View and Scorecard components only<br><br>Specifies whether the vertical gridlines are visible in the table. If selected, you can click the Color Selector icon to specify the line color. |
| Show Horizontal Gridlines | List View and Scorecard components only<br><br>Specifies whether the horizontal gridlines are visible in the table. If selected, you can click the Color Selector icon to specify the line color. |

**Text tab**

Use the following table as a guide for setting the Appearance properties for selector text. In the Show column, select the checkbox for each text item you want to display on the selector. Then, select the text item and format the text appearance. Note that some options are available only for specific selector types.

**Note:**

The Text tab is not available for Spreadsheet Table and Play Selector components.

| Option | Description |
|---|---|
| Text Tab | |
| Title | All except Push Button, Toggle Button, and Icon components<br><br>Displays a main title for the component. |
| Source List Title | List Builder selector only<br><br>Displays a title above the Source list. |
| Source List Labels | List Builder selector only<br><br>Displays a label for each item in the Source list. This option cannot be deselected. |

| Option | Description |
|---|---|
| Destination List Titles | List Builder selector only<br><br>Displays a title above the Destination list. |
| Destination List Labels | List Builder selector only<br><br>Displays a label for each items in the Destination list. This option cannot be deselected. |
| Button Labels | List Builder selector only<br><br>Displays a label on each button. This option cannot be deselected. |
| Labels | All except List Builder, Icon, and Check Box selectors<br><br>Displays a label on the component elements. This option cannot be deselected. |
| Display Values | Ticker selector only<br><br>Displays the data value for each item. |
| Header | Scorecard and List View components only<br><br>Displays a heading row for the grid. |
| Mouse Over Label | Icon selector only<br><br>Displays the label in a tooltip when the user moves the mouse pointer over the icon. |
| Mouse Over Value | Icon selector only<br><br>Displays the value in a tooltip when the user moves the mouse pointer over the icon. |
| Category Names | Accordion Menu only<br><br>Displays the category names. This option cannot be deselected. |
| Format Selected Text | All except Spreadsheet Table and Play Selector components<br><br>The settings in this area allow you to format the text for the selected text element.<br><br>**Note:**<br>If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |

| Option | Description |
|---|---|
| Position | Allows you to set the position for some text elements relative to the component. |
| Offset | Allows you to adjust the position of some text elements by offsetting them relative to their set position. |
| Number Format | Allows you to set the number format for some text elements. |

**Color tab**

Use the following table as a guide for setting the Appearance properties on the Color tab for selectors. For more information about using the Color dialog to set component colors, see Setting colors for component elements.

**Note:**

If Alerts are enabled for an Icon component, the Color option is disabled.

| Option | Description |
|---|---|
| Color Tab | |
| Border Color | Scorecard component only<br><br>Set the color of the border around the scorecard. |
| Background Color | Accordion Menu, Fisheye Menu, Sliding Picture, List View, List Builder, Radio Button, Ticker, and Play Selector components only<br><br>Set the color for the background area behind component elements.<br><br>**Note:**<br>For the Ticker component, if Show Ticker Background is not selected on the Layout tab, you cannot set a background color. |
| Category Names | Accordion Menu component only<br><br>Applies to the text color on the category buttons.<br><br>You can set a different color for when the button is not active (Default color), when the mouse pointer is over the button (Over Color), and when the category is selected (Selected Color). |
| Category Background | Accordion Menu component only<br><br>Applies to the background color on the category buttons.<br><br>You can set a different color for when the button is not active (Default color), when the mouse pointer is over the button (Over Color), and when the category is selected (Selected Color). |

| Option | Description |
|---|---|
| Header Labels | List View and Scorecard components only<br><br>Applies to the column header text.<br><br>You can set a different color for when the column is not active (Default color), when the mouse pointer is over the header (Over Color), and when the column is selected (Selected Color). |
| Header Background | List View and Scorecard components only<br><br>Applies to the column header background.<br><br>You can set a different color for when the column is not active (Default color), when the mouse pointer is over the header (Over Color), and when the column is selected (Selected Color). |
| Button | Toggle and Push Button components only<br><br>Applies to the button color.<br><br>You can set a different color for when the button is on and when it is off. |
| Labels | Combo Box, Accordion Menu, Filter, Label Based Menu, List Box, List View, Push Button, Scorecard, and Ticker components only<br><br>Applies to the label text.<br><br>You can set a different color for when the element is not active (Default color), when the mouse pointer moves over the element (Over color), and when the element is active (Selected Color). |
| Label Backgrounds | Combo Box, Accordion Menu, Filter, Label Based Menu, List Box, List View components only<br><br>Set the color for labels on the component.<br><br>You can set a different color for when the element is not active (Default color), when the mouse pointer moves over the element (Over color), and when the element is active (Selected color). |
| Label Header Color | Fisheye and Sliding Picture components only<br><br>Applies to the background color of the heading bar.<br><br>**Note:**<br>The label text color is set on the Text tab in Labels text formatting. |

| Option | Description |
|---|---|
| Drop-Down Button | Combo Box and Filter components only<br><br>Applies to the drop-down button beside the labels.<br><br>You can set different colors for the background (Button Color) and the drop-down symbol (Arrow Color), as well as for those items when selected or not selected. |
| Display Values | Ticker component only<br><br>Applies to the text color for the display values displayed in the ticker.<br><br>You can set a different color for the text when it is not active (Default Color), when the mouse point moves over the text (Over Color), and when the element is selected (Selected Color).<br><br>**Note:**<br>On the Ticker component, the color settings for the Labels are independent of the color settings for the Display Values. |
| Source List Labels | List Builder component only<br><br>Applies to the text color for items in the source list.<br><br>You can set a different color for the text when it is not active (Default Color), when the mouse pointer moves over the text (Over Color), and when the text is selected (Selected Color). |
| Source List Back-ground | List Builder component only<br><br>Applies to the area in the source list behind the text.<br><br>You can set a different color for the background when the text is not active (Default Color), when the mouse pointer moves over the text (Over Color), and when the text is selected (Selected Color). |
| Destination List Labels | List Builder component only<br><br>Applies to the text color for items in the destination list.<br><br>You can set a different color for the text when it is not active (Default Color), when the mouse pointer moves over the text (Over Color), and when the text is selected (Selected Color). |

| Option | Description |
|---|---|
| Destination List Background | List Builder component only<br><br>Applies to the area in the destination list behind the text.<br><br>You can set a different color for the background when the text is not active (Default Color), when the mouse pointer moves over the text (Over Color), and when the text is selected (Selected Color). |
| Thumbnails | Fisheye Menu and Sliding Picture Menu components only<br><br>Applies to the thumbnail area behind the images.<br><br>You can set a different color for the background when the item is not active (Default Color), when the mouse pointer moves over the item (Over Color), and when the item is selected (Selected Color). |
| Buttons | Accordion Menu, Sliding Picture, List Builder, and Play Selector components only<br><br>Applies to buttons on the component. Depending on the component, you can set a different color for the following elements:<br>• the button background for active, pressed, or disabled buttons<br>• the symbol for active, pressed, or disabled buttons<br>• the button label for default and pressed buttons |
| Gridlines | List View, Scorecard, and Spreadsheet Table components only<br><br>Applies to the lines between columns and rows in the table.<br><br>**Note:**<br>If, on the Layout tab, Show Gridlines is not selected, this option is not available. |
| Sort Symbol : Symbol Color | List View, Scorecard, and Ticker components only<br><br>Applies to the arrow symbol that appears beside the column title to show the current sort direction.<br><br>**Note:**<br>The symbol is not visible in design mode. |

| Option | Description |
|---|---|
| Rows | Spreadsheet Table and Scorecard components only

Applies to the rows in the spreadsheet.

You can set a different row color for when the mouse pointer moves over the row (Over Color), and when the row is selected (Selected Color).

For the Scorecard component, you can also set a different color for alternating rows.

**Note:**
The default row color is set to the color defined for the source cells in the embedded spreadsheet. |
| Scroll Bar | Combo Bar, Accordion Menu, Filter, List Box, List View, List Builder, Scorecard, and Spreadsheet Table components

Set the color for the parts of the scroll bar. |
| Unchecked Color | Check Box component only

Applies to the color of the checkbox when it is not selected. |
| Checked Color | Check Box component only

Applies to the color of the checkbox when it is selected. |
| Marker | Radio Button component only

Applies to the color of the button.

You can set a different color for when the button is not selected (Default color) and when it is selected. |
| Progress Indicator | Play Selector component only

Applies to the progress bar indicator.

You can set a different color for the track and for the marker. |

**Related Topics**

• To set up selectors
• Selector general properties
• Selector behavior properties
• Selector alerts properties

### 3.2.3.5 Selector alerts properties

You can set up alerts for the following Selector components:

- Combo Box
- Icon
- Label-based Menu
- List Box
- List Builder
- Ticker
- Scorecard

To set up alerts, select the component and open the "Properties" panel. Then click the Alerts view, select Enable Alerts and set the alert options. For more information about setting alert options, see Understanding Alerts.

**Related Topics**

- To set up selectors
- Selector general properties
- Selector behavior properties
- Selector appearance properties

## 3.2.4 Using the Single Value components

Single Value components let you add user interactivity to your models. Single Value means that the component or each component marker is linked to a single cell in the spreadsheet. At runtime, users can view the output of each component or marker, or adjust a marker to change the value in the associated cell.

**Input vs. output**

Single Value components have been classified as both input and output components, which means that you can use any Single Value component as an input or output element in your model.

What dictates whether a Single Value component is an input (which permits user interaction) or output, is the cell to which it is linked. If the cell contains a formula of any type, the component is interpreted as an output. If the cell does not contain a formula, it is represented as an input.

For example, if you have a Gauge linked to a cell that does not contain a formula, you can modify the value by dragging the gauge needle, thereby modifying the cell value. If you have a Gauge linked to a cell that contains a formula, you cannot modify the value. The value is set by the formula in the cell.

**Note:**

You can control user interaction with Single Value components by setting the Enable Interaction option on the Behavior view for selectors.

**Dial**

An input component. A Dial represents a variable that can be modified to affect other components. For example, to represent the Price per Unit.

**Slider and Dual Slider**

An input component. A Slider represents a variable that can be modified to affect other components. For example, to represent the Price per Unit. The Dual Slider allows you to adjust both the minimum and maximum values.

**Progress Bar**
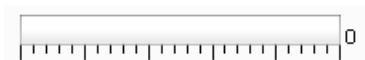
An output component. A Progress Bar represents a value that changes and fills the progress bar area depending on its value.
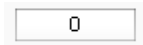
**Gauge**

An output when bound to a cell containing a formula, or an input when bound to a cell containing a value.

As an output, a Gauge represents a value that changes and moves the needle. As an input, a Gauge represents a variable that can be modified to affect other components. Users can interact with the Gauge by dragging the needle to change the value.

**Note:**

A single gauge can be configured to show multiple markers linked to different cells in the spreadsheet.

**Value**

```
     0
```

An output when bound to a cell containing a formula, or an input when bound to a cell containing a value.

As an output, a Value represents a value that changes. As an input, a Value represents a variable that can be modified to affect other components. Users can interact with the Value by typing in a new value.

**Spinner**

```
     0
```

An input component. A Spinner represents a variable that can be modified to affect other components. Users can interact with the Spinner by clicking the up and down arrows or by typing a value into the component.

**Play Control**

An input component. Play Control is used to automatically increase the value of a cell in your spreadsheet. For example, link the play button to a cell that contains the headcount. What will happen if the headcount increases by one, two, three, or more? Play Control takes the initial headcount value and increases its value automatically in increments.

**Related Topics**

• To set up Single Value components

## 3.2.4.1 To set up Single Value components

A list of values is entered in the embedded spreadsheet.

1. Open the "Components" browser and drag a single value component onto the canvas.
2. Select the component and option the"Properties" panel.
3. On the "Properties" panel, click the General view and enter a title for the component, then link the component to the data in the spreadsheet, and set the scale options. For more information about the available options, see Single Value component general properties.

   The component is updated with the changes.

4. Click the Behavior view and set the options for how the component functions in the model including needle movements, interaction options, and dynamic visibility. For more information about the available options, see Single Value component behavior properties.

5. Click the Appearance view and set the visual characteristics of each component element. For more information about the appearance options, see Single Value component appearance properties.

6. If applicable, click the Alerts view to set up notifications that specified values have been reached. For more information about alerts, see Single Value component alerts properties.

7. Click File > Save and enter a location and filename for the model. Click OK.

The single value component is added to the model and configured. To see how the model is working, on the Toolbar, click Preview.

## 3.2.4.2 Single Value component general properties

Use the following table as a guide for setting the Single Value component properties on the General view. Note that some options are available only for specific component types.

| Option | Description |
|---|---|
| "Titles" | |
| Title | All<br><br>The title is centered at the top of the component by default.<br><br>**Note:**<br>You can change the location and format of the title on the Appearance view. |
| Data | All except Gauge components<br><br>These components link to one value point. You can type the value in the box or click the Cell Selector icon ( ) to select the a cell from the embedded spreadsheet. |
| By Range | Gauge components<br><br>Select the range of cells in the spreadsheet that contain the data series to use for the markers. You can link Gauge components to multiple series of data and display multiple indicators on a single gauge; however, gauges with multiple indicators can only be used to display values. Users cannot manipulate the gauge to during run-time.<br><br>**Tip:**<br>Selecting a range here sets up the By Indicator values, which you can then customize in the "By Indicators" area. |

| Option | Description |
|---|---|
| By Indicators | Gauge Components<br><br>Select each indicator in the list and set the following values:<br><br>| Option | Description |<br>|---|---|<br>| Name | A name for the marker |<br>| Value | The value associated with this marker |<br>| Type | The type of marker (needle, inside marker, or outside marker) | |
| Low Value | Dual Slider components only<br><br>The Dual Slider has two points. To set the default value for the left marker (low point), type the value in the box or click the Cell Selector icon (  ) to select the a cell from the embedded spreadsheet. |
| High Value | Dual Slider components only<br><br>The Dual Slider has two points. To set the default value for the right marker (high point), type the value in the box or click the Cell Selector icon (  ) to select the a cell from the embedded spreadsheet. |
| Scale | All<br><br>In this section, set the method used to defined the scale. Select one of the following options:<br>• Manual<br>• Auto |
| Manual | All<br><br>Select this option to set the limits.<br><br>Type the minimum and maximum limits in the boxes or click the Cell Selector icon (  ) to select the a cells from the embedded spreadsheet. |

| Option | Description |
|--------|-------------|
| Auto | All<br><br>Select this option to have the minimum and maximum limits calculated based on the selection in the list. Select this option and then select one of the following calculation methods:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>Value Based</td><td>The limits comprise a range around the value. This option is not available for Play Control, Spinner, Dual Slider, or Value components.</td></tr><tr><td>Zero Based</td><td>The limits comprise a range that uses the value as the upper limit and zero as the lower limit.</td></tr><tr><td>Zero Centered</td><td>The limits comprise a ranges that includes the value and its negative with zero at the center point.</td></tr><tr><td>Alert Based</td><td>The limits comprise a range based on the selected alert method.</td></tr></table> |

**Related Topics**

• To set up Single Value components
• Single Value component behavior properties
• Single Value component appearance properties
• Single Value component alerts properties

## 3.2.4.3 Single Value component behavior properties

Use the following table as a guide for setting the Behavior properties for single value components. Note that some options are available only for specific component types.

| Option | Description |
|--------|-------------|
| Common Tab | |

| Option | Description |
|---|---|
| Progress Move-ment, Slider Movement, or Needle Movement | Progress Bar, Slider, and Gauge components<br><br>This option specifies how changes are shown on the component. Select one fo the following options:<br><br>**Option / Description subtable:**<br><br>| Option | Description |<br>\|---\|---\|<br>\| Increment \| Restricts values to a specific amount. Type the desired increment in the Increment box or click the Cell Selector icon to select a cell in the embedded spreadsheet. \|<br>\| Major Ticks \| Progress moves incrementally on major ticks. \|<br>\| Major and Minor Ticks \| Progress moves incrementally on major and minor ticks. \| |
| Object Elasticity | Gauge components only<br><br>This option determines the springiness of the needle. If you select less elasticity, the needle snaps to values. If you select more elasticity, the needle bounces around before finally settling into place. |
| Increment | Spinner, Value, and Dial components<br><br>This option specifies the amount of movement shown on the component. Type the desired increment in the Increment box or click the Cell Selector icon to select a cell in the embedded spreadsheet. |

| Option | Description |
|---|---|
| Limits | All except the Play Control component<br><br>This option specifies how limits are restricted when the model runs. For each of the Minimum and Maximum limits, select from the following options:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>Fixed</td><td>Users cannot set the value to a number less than the minimum value or greater than the maximum value.</td></tr><tr><td>Adjustable</td><td>Users can adjust the values beyond the set limits. This option is not available for the Value component.</td></tr><tr><td>Open</td><td>Users can set the value to any number that does not conflict with the specified minimum or maximum values</td></tr></table> |
| Enable Interaction | All<br><br>If this option is selected, users can interact with the component. If you want the component to display values and not accept input from users at run-time, deselect this option. |
| Auto Resize | Value and Spinner components only<br><br>If this option is selected, the component will automatically expand or contract to fit the size of the entered value. |
| Mouse Sensitivity | Value, Gauge, and Dial components<br><br>This option determines how sensitive the component is to mouse movements. When the setting is high, small pointer movements can change the value by large increments. When the setting is low, pointer movements change the value by small increments. |
| Mouse Tracking | Gauge and Dial components only<br><br>This option specifies the direction the mouse pointer moves to change the value on a component. Select one of the following options:<br>• Vertical - the user moves the mouse pointer up and down to adjust the value.<br>• Radial - The user moves the mouse pointer in a circular motion to adjust the value. |

| Option | Description |
|---|---|
| Scroll Behavior | Value components only<br><br>This option determines the action required to change the value. Select one of the following options:<br>• Manual - the user moves the mouse pointer above or below the component to change the value. For each increment of change, the user must continue to move the pointer.<br>• Auto - The user moves the mouse pointer and places it above or below the component to adjust the value. While the mouse button is pressed, the value continues to change without requiring further pointer movement. |
| Enable Play Button | All except Dual Slider and Spinner components.<br><br>When this option is selected, the play button is available for the component. When the user clicks the Play button, the component goes through the values from minimum to maximum in the increments set for the component. |
| Auto Play | Play Control component only<br><br>This option is available if the Enable Play Button is selected.<br><br>If this option is selected, the play sequence for the component automatically plays when the model is loaded. |
| Play Time | All except Dual Slider and Spinner components.<br><br>This option allows you to set the duration of the play sequence. Type the number of seconds from 1 to 100 in the box. |
| Auto Rewind | All except Dual Slider and Spinner components.<br><br>If this option is selected, when the play sequence reaches the maximum value, it automatically rewinds to the minimum value. |
| Auto Replay | All except Dual Slider and Spinner components.<br><br>If this option is selected, the play sequence automatically repeats. |
| Dynamic Visibility | All<br><br>This option allows you to specify conditions that control when the selector appears in the model.<br><br>For more information about using dynamic Visibility, see Managing the Visibility of Components. |
| Animations and Effects Tab | |

| Option | Description |
|--------|-------------|
| Entry Effect | All<br><br>If dynamic visibility is enabled, select how you want to the chart to appear on the canvas when triggered. You can select an entry effect and specify how long you want to components appearance to take. For more information about dynamic visibility, see Managing the Visibility of Components |

**Related Topics**

• To set up Single Value components
• Single Value component general properties
• Single Value component appearance properties
• Single Value component alerts properties

## 3.2.4.4 Single Value component appearance properties

**Layout tab**

Use the following table as a guide for setting the Appearance properties on the Layout tab for single value components. Note that some options are available only for specific component types.

| Option | Description |
|--------|-------------|
| Layout Tab | |
| Enable Ticks | All except Spinner and Value components<br><br>If this option is selected, small markers that indicate values (ticks) are visible on the component. |
| Auto Scale | All except Spinner and Value components<br><br>If Enable Ticks is selected, this option automatically scales the ticks according to the data. |

| Option | Description |
|---|---|
| Manual | All except Spinner and Value components

If Enable Ticks is selected, this option allows you to customize the appearance of the ticks. Select one of the following options:
• Number of Ticks -- allows you to specify how many major and minor ticks are included on the component.
• Size of Divisions - allows you to set the distance between ticks. Higher values result in larger distances. You can set the value for both Major and Minor ticks. The size of the minor divisions is not dependent on the size of the major divisions. |
| Radial Definition | Dial and Gauge components only

This option allows you to set the angle of the needle on the component.

For both Minimum Angle and Maximum Angle, type the angle amount the needle can rotate to.

**Note:**
If, on the Behavior view, the Minimum Limit is set to Open, you cannot set the Minimum Angle value. If the Maximum Limit is set to Open, you cannot set the Maximum Angle. |
| Show Background | Value component only

Select this option to display a background for the component. If not selected, the component in transparent. |
| Layout Options | Play Control component only

This option determines which elements appear on the Play Control component. Select the elements you want to include: Rewind/Fast Forward buttons, Previous/Next buttons, and Slider (progress bar). |

**Text tab**

Use the following table as a guide for setting the Appearance properties on the Text tab for selectors. In the Show column, select the checkbox for each Text item you want to display on the selector. Then, select the text item and format the text appearance Note that some options are available only for specific selector types.

**Note:**
The Text tab is not available for Area, Stacked Area, and filled Radar Chart components.

| Option | Description |
|---|---|
| Text tab | |

| Option | Description |
|---|---|
| Title | All<br><br>Displays a title above the component. |
| Value | All<br><br>Displays the current value. For Value and Spinner components, this option cannot be deselected. |
| Limits | All except Play Controll and Value components<br><br>Displays the upper and lower limits for the component. |
| Format Selected Text | All<br><br>The settings in this area allow you to format the text for the selected text element.<br><br>**Note:**<br>If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |
| Position | Allows you to set the position for some text elements relative to the component.. |
| Offset | Allows you to adjust the position of some text elements by offsetting it relative to its set position. |
| Number Format | Allows you to set the number format for some text elements. |

### Color tab

Use the following table as a guide for setting the Appearance properties on the Color tab for single value components. To set the color for a component element, click the Color Selector icon and from the "Color" dialog box, select the color you want to use. Note that some options are only available for specific component types.

| Option | Description |
|---|---|
| Color tab | |
| Needle Color | Gauge and Dial components only<br><br>Applies to the needle on the component. |
| Frame Color | Gauge component only<br><br>Applies to the area surrounding the gauge face. |

| Option | Description |
|---|---|
| Grip Color | Dial component only<br><br>Applies to the area surrounding the dial face. |
| Center Color | Gauge component only<br><br>Applies to the center area of the gauge. |
| Background Color | Gauge, Dial, Spinner, and Value components<br><br>Set the color for the background area behind component elements. |
| Play Button Color | Gauge, Slider, Dial, Progress Bar, Value, and Play Control components<br><br>Applies to the Play button background on the component.<br><br>**Note:**<br>This option is available only if, on the "Behavior" view, Enable Play Button is selected. |
| Play Symbol Color | Gauge, Slider, Dial, Progress Bar, Value, and Play Control components<br><br>Applies to the symbol that appears on the Play Button.<br><br>**Note:**<br>This option is available only if, on the Behavior tab, Enable Play Button is selected. |
| Marker Color | Slider, Progress Bar, and Play Control components except the Dual Slider component.<br><br>Applies to the marker on the slider/progress bar. |
| Low Marker Color | Dual Slider component only<br><br>Applies to the marker on the slider that shows the low setting. |
| High Marker Color | Dual Slider component only<br><br>Applies to the marker on the slider that shows the high setting. |
| Track Color | Slider, Progress Bar, and Play Control components<br><br>Applies track area of the slider/progress bar. |
| Tick Color | Gauge, Slider, Dial, Progress Bar, and Play Control components<br><br>Applies to the color of the tick markers on the component. |

| Option | Description |
|---|---|
| Limits Background Color | Gauge, Slider, Dial, Progress Bar components<br><br>Applies to the color behind the text that indicate the current limits.<br><br>**Note:**<br>This is available only if, on the Behavior view, the Minimum or Maximum Limit is set to Open. |
| Up Button | Spinner component only<br><br>Applies to the Up button used to set the component's value.<br><br>You can set a different color for the button background and for the up symbol. You can also set different colors for the default button (not pressed) and a pressed button. |
| Down Button | Spinner component only<br><br>Applies to the Down button used to set the component's value.<br><br>You can set a different color for the button background and for the down symbol. You can also set different colors for the default button (not pressed) and a pressed button. |

**Related Topics**

• To set up Single Value components
• Single Value component behavior properties
• Single Value component general properties
• Single Value component alerts properties

## 3.2.4.5 Single Value component alerts properties

You can set up alerts for the following Single Value components:
• Vertical Slider
• Horizontal Slider
• Dual Slider
• Horizontal Progress Bar
• Dial
• Gauge
• Value
• Spinner

To set up alerts, select the component and open the Properties panel. Then click the Alerts tab, select the Enable Alerts checkbox and set the alert options. For more information about setting alert options, see Understanding Alerts.

**Related Topics**

• To set up Single Value components
• Single Value component general properties
• Single Value component behavior properties
• Single Value component appearance properties

## 3.2.5 Using Map components

Map components create models with geographical representations that can display data by region.

The Map components have two major characteristics: they display data for each region and each region can also act as a selector. By combining these two features, you can create a model where the data for each region appears when you pass the pointer over the region. At the same time, each region can insert a row of data that contains additional information. This row of data is displayed by other components, such as a chart or value component.

**How does it work?**

Xcelsius 2008 associates data with each region in the map by using region keys. Each region in the map has a default region key, and you can enter your own region keys. When a region on the map is selected, the component searches either the first column or first row of that range's key. The data in the row or column corresponding to the key is associated with the region.

By default, the USA maps use postal abbreviations as region keys; the Europe map uses the ISO (or International Organization for Standardization) two-digit country codes as region keys. To use the map components with existing spreadsheets, you can edit the region keys associated with each region by clicking the Manual Edit icon ( ) to type the new keys, or by clicking the Cell Selector icon ( ) beside the Region Key box to select the row or column containing the new keys by editing the region names.

**Note:**

In the spreadsheet you must enter the region keys and data in adjacent cells for both Display Data and Source Data.

**Tip:**

Xcelsius 2008 provides a spreadsheet that lists the default region codes for each map component. The file is located in the following location: `C:\Program Files\Business Objects\Xcelsius\assets\samples\User Guide Samples`

### 3.2.5.1 To set up Map components

A list of values has been entered in the embedded spreadsheet.

1.  Open the "Components" browser and drag a map component onto the canvas.
2.  Right-click the component and select Properties.

    The "Properties" panel for the map component opens.

    **Note:**
    If the "Properties" panel has Auto-hide turned on, point to the Properties tab to expand the panel.

3.  On the "Properties" panel, click the General view and enter a title for the component, then link the component to the data in the spreadsheet. For more information about the available options, see Map general properties.

    The component is updated with the changes.

4.  Click the Behavior view and set the options for how the component functions in the model including interaction options and dynamic visibility. For more information about the available options, see Map behavior properties.
5.  Click the Appearance view and set the visual characteristics of each component element. For more information about the appearance options, see Map appearance properties.
6.  If applicable, click the Alerts view to set up notifications that specified values have been reached. For more information about alerts, see map Alerts properties].
7.  Click File > Save and enter a location and filename for the model. Click OK.

The map component is added to the model and configured. To see how the model is working, on the Toolbar, click Preview.

### 3.2.5.2 Map general properties

Use the following table as a guide for setting the Map properties on the General tab.

| Option | Description |
|---|---|
| "Titles" | |
| Title | The title is centered at the top of the component by default.<br><br>**Note:**<br>You can change the location and format of the title on the Appearance tab. |

| Option | Description |
|---|---|
| Region Keys | The region keys define the codes used for each region in the map component. These codes must be included in the embedded spreadsheet and in the range selected for Display Data and Source Data. Each map has default region keys set up. You can use the default values or customize the codes to correspond to your data.<br>• To see and modify the region keys, click the Manual Edit icon.<br>• To assign codes from cells in the embedded spreadsheet, click the Cell Selector icon. |
| Display Data | The Display Data is associated with a specific map region and, when a user clicks region, the data displays. Click the Cell Selector icon to select the a cell from the embedded spreadsheet.<br><br>When you select the data range, you must include the column or row that has the region codes. When Xcelsius searches for the region code, it determines the number of rows and columns in the table and does one of the following:<br>• if it has 2 columns and more than 2 rows, it looks for the codes in the first column.<br>• If it has 2 rows and more than 2 columns, it looks for the codes in the first row.<br>• If it has 2 rows and 2 columns, it looks in the first column and first row for the greatest number of codes and uses that. |
| Insertion Type | This option determines how data is inserted when the user clicks a region. You can select either rows or columns. |
| Source Data | This option specifies what data will be inserted into the table when a region is clicked. When you select the data range, you must include the column or row that has the region codes. Xcelsius uses the region code to associate the data with specific regions.<br><br>Click the Cell Selector icon to select the a cell from the embedded spreadsheet. |
| Destination | This option specifies where the source data will be inserted in the spreadsheet. The selected cells must match the Insertion Type and size of the source data.<br>**Note:**<br>The destination cells must be empty. |

## 3.2.5.3 Map behavior properties

Use the following table as a guide for setting the Behavior properties for maps.

| Option | Description |
|---|---|
| Common Tab | |
| Interaction Options | Specifies how the user selects a region. Select either Mouse Click or Mouse Over. |
| Default Selected Region | Specifies which region is selected when the model runs and before the user makes a selection. |
| Dynamic Visibility | This option allows you to specify conditions that control when the map appears in the model. For more information about using dynamic Visibility, see Managing the Visibility of Components. |
| Animations and Effects Tab | |
| Entry Effect : Type | If dynamic visibility is enabled, select how you want to the chart to appear on the canvas when triggered. You can select an entry effect and specify how long you want to components appearance to take and, for some selectors, whether the component makes a sound when it appears. For more information about dynamic visibility, see Managing the Visibility of Components. |

### 3.2.5.4 Map appearance properties

Use the following table as a guide for setting the Appearance properties for Map components.

| Option | Description |
|---|---|
| Layout Tab | |
| Transparency | Specifies how clearly objects behind the map can be seen. Set the slider to a value between 0 and 100 where 0 is not transparent at all and 100 is completely transparent. |
| Text Tab | |
| Title | Displays a title for the map. Select the checkbox in the Show column to displays this option. To format the text appearance, select this item and enter the format settings. |
| Mouse-over Titles | Displays titles when the user moves the mouse pointer over an areas of the map. Select the checkbox in the Show column to displays this option. To format the text appearance, select this item and enter the format settings. |
| Mouse-over Labels | Displays titles when the user moves the mouse pointer over an areas of the map. Select the checkbox in the Show column to displays this option. To format the text appearance, select this item and enter the format settings. |
| Format Selected Text | The settings in this area allow you to format the text for the selected text element.<br><br>**Note:**<br>If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |
| Position | Allows you to set the position for some text elements relative to the component.. |
| Offset | Allows you to adjust the position of some text elements by offsetting it relative to its set position. |
| Number Format | Allows you to set the number format for some text elements. |
| Color Tab | |

| Option | Description |
|---|---|
| Default Color | Applies to regions that are not associated with data in the spreadsheet and cannot be selected. |
| Over Color | Applies to regions when the mouse pointer moves over them. |
| Selected Color | Applies to the region that is selected. |
| Selectable Color | Applies to regions that are associated with data in the spreadsheet and can be selected. |
| Border Color | Applies to the borders between regions. |

**Related Topics**

• To set up Map components
• Map general properties
• Map behavior properties
• Map alerts properties

## 3.2.5.5 Map alerts properties

You can set up alerts for all Map components.

To set up alerts, select the component and open the "Properties" panel. Then click the Alerts view, select the Enable Alerts checkbox and set the alert options. For more information about setting alert options, see Understanding Alerts.

**Related Topics**

• To set up Map components
• Map general properties
• Map behavior properties
• Map appearance properties

## 3.2.6 Using the Text components

This category contains components for placing labels and typing text into your model.

Text components let you customize your model. Not only can you insert static text to identify areas and elements of your model, but you can also link the text components to cells in the embedded spreadsheet that contain formulas that will dynamically change the text displayed in the model based on the formula result. In addition, formulas can contain html code to increase your formatting options.

Xcelsius 2008 includes the following Text-based components:

**Input Text Area**

The Input Text Area lets users input multiple lines of text into the model.

**Label**
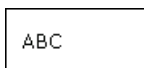
The Label component lets you add an unlimited amount of text to enhance your models. You can use the Label component to create titles, subtitles, explanations, help, and more. Label text cannot be changed by the user.

**Input Text**

The Input Text component lets users type text into the model.

**Related Topics**

• To set up Text components

## 3.2.6.1 To set up Text components

A list of values is entered in the embedded spreadsheet.

1. Open the "Components" browser and drag a text component onto the canvas.
2. Right-click the component and select Properties.
   The "Properties" panel for the text component opens.

   **Note:**
   If the "Properties" panel has Auto-hide turned on, point to the Properties tab to expand the panel.

3.  On the "Properties" panel, click the General view and specify the text to display as well as a destination to insert data. For more information about the available options, see Text general properties.

    The component is updated with the changes.

4.  Click the Behavior view and set the options for how the component functions in the model including character limits, scroll bar options, and dynamic visibility. For more information about the available options, see Text behavior properties.

5.  Click the Appearance view and set the visual characteristics of each component element. For more information about the appearance options, see Text appearance properties.

6.  Click File > Save and enter a location and filename for the model. Click OK.

The text component is added to the model and configured. To see how the model is working, on the Toolbar, click Preview.

## 3.2.6.2 Text general properties

Use the following table as a guide for setting the Text properties on the General tab.

| Option | Description |
|---|---|
| Link to a Cell | All<br><br>This option allows you to link the component to a cell in the embedded spreadsheet. Changes to the data in the cell are reflected in the Text component. You can use this option to set dynamic labels by defining formulas that update based on data or user selections in the model. |
| Use Spreadsheet Formatting | Label component only<br><br>If you link the label to a cell, select this option if you want the label to apply the same Formatting as is set for the cell in the embedded spreadsheet. |
| Enter Text | All<br><br>This option allows you to manually enter text to display in the component when the model runs. |

| Option | Description |
|---|---|
| Enable HTML Formatting | Label and Input Text Area components only<br><br>Select this option to enable the use of HTML codes for text Formatting. These text components support the following HTML codes:<br>• Anchor tag (<a>)<br>• Bold tag (<b>)<br>• Break tag (<br>)<br>• Font tag (<font>)<br>• Image tag (<img>)<br>• Italic tag (<I>)<br>• List item tag (<li>)<br>• Paragraph tag (<p>)<br>• Text format tag (<textformat>)<br>• Underline tag (<u>)<br><br>**Note:**<br>If you intend to export your model to PowerPoint and include a link in the text with HTML formatting, you must include `target="_blank"` in your link tag so PowerPoint opens the link in a new window. For example, `<a href="http://www.google.com"target="_blank">`. If you don't include the target setting, users can open the link in PowerPoint if they right-click the link and select Open in new window. |
| Insert Data on Load | Input Text and Input Text Area components<br><br>Select this checkbox to insert the default text into the destination cell when the model loads. |
| Destination | Input Text and Input Text Area components<br><br>This option specifies where the source data will be inserted in the spreadsheet.<br><br>**Note:**<br>The destination cells must be empty. |

**Related Topics**

• To set up Text components
• Text behavior properties
• Text appearance properties

### 3.2.6.3 Text behavior properties

Use the following table as a guide for setting the Behavior properties for text-based components.

| Option | Description |
|---|---|
| Common Tab | |
| Treat All Input as Text | Input Text and Input Text Area components only<br><br>If this option is selected, the input is treated as text, which will preserve leading zeros. Text is not available for use in formulas or calculations.<br><br>If this option is not selected, the input is treated as numeric input, which allows it to be used for calculations or formulas, but will remove leading zeros in the display and in the associated cell in the embedded spreadsheet. |
| Enable Password Protection | Input Text component only<br><br>Select this option to display typed characters as asterisks (*), Use this option to create password entry and protect the password from being displayed on the screen. |
| Maximum Number of Characters | Input Text and Input Text Area components only<br><br>Use this option to specify set a limit for the number of characters users can enter. |
| Characters Allowed | Input Text component only<br><br>This option allows you to control which characters users can enter into the component. By default, all characters are allowed. For more information about defining allowed and not allowed characters, see Restricting characters in text-based components<br><br>. |

| Option | Description |
|---|---|
| Horizontal Scroll Bar | Input Text Area and Label components only<br><br>If the text exceeds the width of the text area, a scroll bar allows users to move through the text. Select one of the following options:<br><br>| Option | Description |<br>\|---\|---\|<br>\| On \| The horizontal scroll bar is always visible. \|<br>\| Off \| The horizontal scroll bar is never available. \|<br>\| Auto \| The horizontal scroll bar appears if the text exceeds the width of the text area and disappears if the text is within the available area. \| |
| Vertical Scroll Bar | Input Text Area and Label components only<br><br>If the text exceeds the height of the text area, a scroll bar allows users to move through the text. Select one of the following options:<br><br>| Option | Description |<br>\|---\|---\|<br>\| On \| The vertical scroll bar is always visible. \|<br>\| Off \| The vertical scroll bar is never available. \|<br>\| Auto \| The vertical scroll bar appears if the text exceeds the height of the text area and disappears if the text is within the available area. \| |
| Dynamic Visibility | All<br><br>This option allows you to specify conditions that control when the text component appears in the model. For more information about using dynamic Visibility, see Managing the Visibility of Components. |
| Animations and Effects Tab | |
| Entry Effect : Type | All<br><br>If dynamic visibility is enabled, select how you want to the chart to appear on the canvas when triggered. You can select an entry effect and specify how long you want to components appearance to take. For more information about dynamic visibility, see Managing the Visibility of Components. |

**Related Topics**

- To set up Text components
- Text general properties
- Text appearance properties

### 3.2.6.3.1 Restricting characters in text-based components

If you use Input Text component in which users can enter text, for example, to enter a password, you can specify the characters that can be entered and those that cannot. By default, the component allows users to enter any character.

To limit the allowed characters:

1. On the component properties panel, click Behavior > Common .
1. In the Characters Allowed box, type the allowed and not allowed characters or click the Cell Selector icon (  ) to select a cell in the spreadsheet that contains the values.

   When defining the characters allowed, use the following conventions:

   | Effect | Convention |
   | --- | --- |
   | Allow specific characters | Type the characters, for example, abcABC |
   | Disallow specific characters | Precede the characters with a carat (^), for example, ^abcABC |
   | Allow a range of characters | Separate the first and last character with a dash (-), for example, a-zA-Z |
   | Switch between allowed and disallowed characters | Surround the disallowed characters with carats (^), for example, abc^def^gh indicates that "abcgh" are allowed and "def" are not allowed. |
   | Allow or disallow a carat (^), dash (-), or backslash (\) character | Precede these special characters with a backslash (\), for example, \^\-\\ |
   | Use common character sets | Some common characters sets include:<br>•    Whole numbers including negative numbers: \-0-9<br>•    Real numbers including negative numbers: \-0-9.<br>•    Fractions: \-/0-9<br>•    Positive whole numbers: 0-9<br>•    Positive real numbers: 0-9.<br>•    Letters: a-zA-Z<br>•    Numbers and Letters: 0-9a-zA-Z |

**Related Topics**

- Text behavior properties

### 3.2.6.4 Text appearance properties

Use the following table as a guide for setting the Appearance properties for text-based components. Note that some options are available only for specific component types.

| Option | Description |
| --- | --- |
| Layout Tab | |
| Wrap Text | Input Text Area component only<br><br>If selected, lines of text that are longer than the width of the text area wrap to the next line. |
| Transparency | Label component only<br><br>Specifies whether objects behind the component are visible. A transparency of 0 means that users cannot see objects behind the component. A transparency of 100 means that the component is completely transparent and invisible to users. |
| Draw Border On | Label component only<br><br>Select the border side (Top, Bottom, Left, Right, or All Sides) and then set the format options: Show Border and Border Thickness. |
| Show Border | Label component only<br><br>For the border side selected in Draw Border On, select this option to show a border. |
| Border Thickness | Label component only<br><br>For the border side selected in Draw Border On, select a thickness for the line from 1 to 100. |
| Show Fill | Label component only<br><br>If selected, the label has a solid background. You can set the fill color on the Color tab. |
| Text Tab | |

| Option | Description |
|---|---|
| Format Selected Text | Label component only<br><br>The settings in this area allow you to format the text for the selected text element.<br><br>**Note:**<br>If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |
| Position | Allows you to set the position for some text elements relative to the component. |
| Offset | Allows you to adjust the position of some text elements by offsetting it relative to its set position. |
| Number Format | Allows you to set the number format for some text elements. |
| Color Tab | |
| Background Color | All<br><br>Applies to the background area behind the text. |
| Scroll Bar | Input Text Area and Label component only<br><br>Set the color for the parts of the scroll bar. |
| Labels Background : Fill Color | Label component only<br><br>Applies to the background area behind the text.<br><br>**Note:**<br>This option is available if Show Fill is selected on the Layout tab. |

**Related Topics**

• To set up Text components
• Text general properties
• Text behavior properties

## 3.2.7 Using the Other components

This category contains an assorted set of components that you can use to enhance your models. Xcelsius 2008 includes the following Other components:

## Calendar



The Calendar component is a selector that lets you incorporate date selection into your models.

**Note:**
This component is not available in Xcelsius Present.

## Local Scenario Buttons



The Local Scenario Button lets users save and load runtime configurations of an Xcelsius 2008 model on their local machine. Once saved, these configurations or scenarios can be loaded again, even after closing the model. The user also has the option to set a saved scenario as the default scenario so it loads when the model opens. These scenarios are saved to the local machine, and will be unavailable if the model is opened on a different machine.

## Trend Icon



The Trend Icon changes its pointing direction, depending on the value of the cell to which it is linked:

*   If the value is positive, the arrow points up.

*   If the value is zero, the symbol is neutral.

*   If the value is negative, the arrow points down.

## History



The History component tracks and displays the history of changes in a selected cell. This allows you to easily see the effect of changes in worksheet data.

**Note:**
This component is not available in Xcelsius Present.

### Panel Set
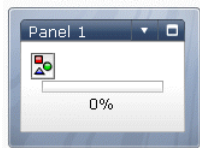
The Panel Set component is a series of framing options that enables you to easily navigate between files in a presentation. You can embed JPEG or SWF files into the frames of the Panel Set component and adjust a variety of formatting features to customize the look of the component in your model.

**Note:**

This component is not available in Xcelsius Present.

### Source Data

The Source Data component has no visual interface. It allows you to push data into other cells simply by changing the value of the component's Selected Index.

**Note:**

This component is not available in Xcelsius Present.

### Trend Analyzer

The Trend Analyzer combines data analysis and model. The component analyzes spreadsheet data and inserts data points for a trend line into the spreadsheet, which can then be added to your model. You can also configure this component to forecast based on historical values.

**Note:**

This component is not available in Xcelsius Present.

### Print Button

The Print Button allows users to easily print the model while it is running. The user can click the Print button to print the SWF file. The Print button is part of the canvas and will be visible in the printout.

**Reset Button**
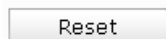
Reset

The Reset Button returns the model to its original state. Users can interact with the components, then click the button to clear their changes.

**Grid**

| 1 | 2 | 3 | 4 | 5 |
| 2 | 4 | 6 | 8 | 10 |
| 3 | 6 | 9 | 12 | 15 |

The Grid component is a dynamic table that represents a group of rows and columns of content. The Grid lets you show the data just as it is on any table, or perform data modification that can impact other components.

The Grid component differs from the Spreadsheet and List View components in that rather than being a static representation of the data table, the user can click the cells of the Grid and type new values or drag the values higher/lower

**Note:**
This component is not available in Xcelsius Present.

## 3.2.7.1 Other component general properties

Use the following table as a guide for setting the properties on the General view for Other components.

| Option | Description |
|---|---|
| Title | Calendar and Panel Set components only<br><br>The title is centered at the top of the component by default.<br><br>Type the text in the box or click the Cell Selector icon to select the title text from the embedded spreadsheet.<br><br>**Note:**<br>You can change the location and format of the title on the Appearance view. |
| Label | Local Scenario Button, Print Button, and Reset Button components only<br><br>This option defines the text that appears on the button.<br><br>Type the text in the box or click the Cell Selector icon to select the label text from the embedded spreadsheet. |

| Option | Description |
|---|---|
| Panel Titles | Panel Set component only<br><br>These titles appear on each frame of the panel set.<br><br>Click the Cell Selector icon to select the label text from the embedded spreadsheet or click the Manual Edit icon to type the label text. |
| Layout | Panel Set component only<br><br>From the list, select the option that represents the number and arrangement of panels you desire. |
| Content : Panels | Panel Set component only<br><br>The number of panels in the list corresponds to the option selected in Layout. Select each panel and set the content options. |
| Content Type | Panel Set component only<br><br>This option specifies the type of information provided in the selected panel. Select one of the following options:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>None</td><td>The panel is blank.</td></tr><tr><td>Embedded JPEG or SWF</td><td>Saves a copy of the file with the model. Click the Import button to specify the location of the file to embed.</td></tr><tr><td>By URL</td><td>References external JPEG or SWF files at a URL location. Click the Cell Selector icon to select the URL from the embedded spreadsheet or click the Manual Edit icon (📝) to type the URLs manually.</td></tr></table> |
| Drop-Down Menu Labels | Panel Set component only<br><br>This option specifies items to display in the list for the selected panel.<br><br>Click the Cell Selector icon to select the label text from the embedded spreadsheet or click the Manual Edit icon (📝) to type the label text. |

| Option | Description |
|--------|-------------|
| Insertion Type | Calendar and Source Data components only<br><br>This option specifies the type of information that is inserted when a selection is made. Select one of the following options:<br><br>For Calendar components:<br>• Day - inserts the select day, for example, April 7 is entered as "7".<br>• Date - inserts the Excel formatted date, for example, April 7, 2010 is entered as "04/07/2010".<br><br>For Source Data components:<br>• Value - inserts the value from a single cell.<br>• Row - inserts the values in a row of data.<br>• Column - inserts the values in a column of data. |
| Source Data | Source Data component only<br><br>Specifies the location of the source data for selections. Click the Cell Selector icon to select the range from the spreadsheet. |
| Destination | Calendar and Source Data components only<br><br>Specifies the location in the spreadsheet where the data will be inserted. Click the Cell Selector icon to select the range in the spreadsheet.<br><br>**Note:**<br>The required size of the destination range varies according to the structure selected in Insertion Type. For structures that use columns or rows of data, be sure to select a range that is large enough to contain your largest column or row of data. |
| Month Destination | Calendar component only<br><br>Specifies the location in the spreadsheet to insert the month value for the selected date. |
| Year Destination | Calendar component only<br><br>Specifies the location in the spreadsheet to insert the year value for the selected data. |

| Option | Description |
|---|---|
| Data | Trend Analyzer, Grid, Trend Icon, and History components only<br><br>Specifies the source data that the component will use. Click the Cell Selector icon to select the range in the spreadsheet.<br><br>For the Grid component, a value is displayed for each cell selected and values are arranged in the same order as in the spreadsheet. Changes to the spreadsheet values are reflected in the Grid and changes to the Grid values are reflected in the Spreadsheet and may affect other components linked to those cells.<br><br>For the Trend Icon component, if the value in this cell is greater than 0, the component displays an up arrow. If the values is less than 0, it displays a down arrow, and if it equals 0, it displays a neutral symbol. |
| Minimum Limit | Grid component only<br><br>This option specifies a lower limit to the values entered into the grid. Type the limit in the box or click the Cell Selector icon to select the limit amount from the embedded spreadsheet. |
| Maximum Limit | Grid component only<br><br>This option specifies an upper limit to the values entered into the grid. Type the limit in the box or click the Cell Selector icon to select the limit amount from the embedded spreadsheet. |

| Option | Description |
|---|---|
| Colors | Trend Icon component only<br><br>This option specifies the colors that represent the overall trend. Click the Color Picker icon beside each of the following options and select a color.<br><br>| Option | Description |<br>\|---\|---\|<br>\| Positive Value Color \| Indicates the data value is greater than 0. \|<br>\| Zero Value Color \| Indicates the data value is equal to 0. \|<br>\| Negative Value Color \| Indicates the data value is less than 0. \| |
| Data Destination | History component only<br><br>This option specifies the location where the history data will be inserted.<br><br>**Note:**<br>The number of cells in this range determines the number of data changes retained for historical records. Once the limit is reached, the oldest data change is overwritten. If the range is a single column, with multiple rows, the newest data is inserted in the bottom cell bumping older data up one row. If the range is a single row with multiple columns, the newest data is inserted in the right-most cell bumping older data left one column. If the range has multiple rows and multiple columns, the newest data is inserted in the right-most column's bottom cell and older data I bumped left to the limit of the range and then up one row to the right most column in a zigzag pattern. |
| When Value Changes | History component only<br><br>Select this option to record the cell history each time the value in the cell changes. |
| On Interval | History component only<br><br>Select this option to record the cell history at regular intervals. In the Duration (seconds) box, enter the interval duration. |

## 3.2.7.2 Other component behavior properties

Use the following table as a guide for setting the Behavior properties for other components. Note that some options are available only for specific component types.

| Option | Description |
|--------|-------------|
| Common Tab | |
| Default Date | Calendar component only<br><br>The option specifies the date the calendar will use when the model loads and before the user selects a date. Select one of the following options:<br>• Use current date - the calendar loads with the current date.<br>• Use custom date - the calendar loads with a specific date selected. Enter values for Day, Month, and Year. |
| Enable Calendar Limits | Calendar component only<br><br>This option allows you to control the date range available for the Calendar component. If you select this option, enter values for Start Month, Start Year, End Month, and End Year to define the range available. |
| Increment | Grid component only<br><br>If Enable Interaction is selected, select this option to restrict the increment that can be entered. The entered number will round to the nearest increment, for example, for dozens. |
| Minimum Limit | Grid component only<br><br>If Enable Interaction is selected, this option allows you to restrict the lowest number that can be entered for grid items. This setting is based on the Scale Minimum Limit on the General tab. Select one of the following options:<br>• Open - users can enter values that are less than the Scale Minimum Limit.<br>• Fixed - users cannot enter values that are less than the Scale Minimum Limit. |
| Maximum Limit | Grid component only<br><br>If Enable Interaction is selected, this option allows you to restrict the lowest number that can be entered for grid items. This setting is based on the Scale Maximum Limit on the General tab. Select one of the following options:<br>• Open - users can enter values that are greater than the Scale Maximum Limit.<br>• Fixed - users cannot enter values that are greater than the Scale Maximum Limit. |

| Option | Description |
|---|---|
| Enable Interaction | Grid component only<br><br>Select this option to allow users to enter values on the grid.<br><br>**Note:**<br>If grid cells are linked to spreadsheet cells that contain formulas, users are unable to enter values regardless of this setting. |
| Mouse Sensitivity | Grid component only<br><br>If Enable Interaction is selected, this option determines how sensitive the component is to mouse movements. When the setting is high, small pointer movements can change the value by large increments. When the setting is low, pointer movements change the value by small increments. |
| Scroll Behavior | Grid component only<br><br>If Enable Interaction is selected, this option determines the action required to change the value. Select one of the following options:<br>• Manual - the user drags the point above or below the component to change the value. For each increment of change, the user must continue to drag the pointer.<br>• Auto - The user drags the pointer and places it above or below the component to adjust the value. While the mouse button is pressed, the value continues to change without requiring further pointer movement. |
| Enable Maximize Button | Panel Set component only<br><br>Select this option to allow users to expand a single panel so it covers the other panels and then minimize it back to its original size. This feature is useful when you want to emphasize different sets of data at different times during a presentation. |
| Zoom Speed | Panel Set component only<br><br>If Enable Maximize Button is selected, this option specifies how fast panels expand and contract. Move the marker along the slider to set the speed. |
| Selected Item : Panel | Panel Set component only<br><br>This option specifies which panel is selected when the model loads. |
| Selected Item : Item | Panel Set component only<br><br>This option specifies which content item displays in the selected panel when the model loads. |

| Option | Description |
|---|---|
| Ignore Blank Cells | Panel Set component only<br><br>Select In Values to prevent empty values past the last non-empty value from being displayed in the Panel Set component. This option allows a variable amount of data to be displayed in the Panel Set. |
| Print Scale | Print Button component only<br><br>This option specifies how the model scales when printing. Select one of the following options:<br>• Scale To - scales to a specific percentage. Select the percentage from the list.<br>• Scale to Fit Page - scales to fit within the paper size. |
| Selected Item Index | Source Data component only<br><br>This option specifies the index for the source data component. When the value in this cell changes, the source data component pushes that value to other components. |
| Dynamic Visibility | All<br><br>This option allows you to specify conditions that control when the component appears in the model. For more information about using dynamic Visibility, see Managing the Visibility of Components<br><br>. |
| Animations and Effects Tab | |
| Entry Effect : Type | All<br><br>If dynamic visibility is enabled, select how you want to the chart to appear on the canvas when triggered. You can select an entry effect and specify how long you want to components appearance to take and, for some selectors, whether the component makes a sound when it appears. For more information about dynamic visibility, see Managing the Visibility of Components |

## 3.2.7.3 Other component appearance properties

### Layout tab

Use the following table as a guide for setting the Appearance properties on the Layout tab for other components. Note that some options are available only for specific component types.

| Option | Description |
|---|---|
| Layout Tab | |
| Show Button Back-ground | Local Scenario Button, Print Button, and Reset Button components only<br><br>Specifies whether the background behind the buttons is visible. If selected for the Print Button and Reset Button components, you can set the transparency level for the background. |
| Show Panel Headers | Panel Set component only<br><br>If selected, a header displays above each panel in the set and includes the panel title, list, and minimize or maximize buttons. |
| Number of Labels Displayed | Panel Set component only<br><br>Specifies the number of labels displayed by default in the list. |
| Background Trans-parency | Panel Set component only<br><br>Determines the visibility of the area behind the panels. Adjust the marker on the slider bar to the desired transparency level. |
| Vertical Margin | Grid component only<br><br>This setting modifies the amount of space between each row in the grid. |
| Horizontal Margin | Grid component only<br><br>This setting modifies the amount of space between each column in the grid. |

### Text tab

Use the following table as a guide for setting the Appearance properties on the Text tab for other components. Note that some options are available only for specific component types.

| Option | Description |
|---|---|
| Text Tab | |
| Show Text | Calendar, Grid, Panel Set, Print Button, Local Scenario, and Reset Buttons only<br><br>Lists the elements that can have text appear on the component. To hide the text for an element, deselect it. |

| Option | Description |
| --- | --- |
| Format Selected Text | Calendar, Grid, Panel Set, Print Button, Local Scenario, and Reset Buttons only<br><br>The settings in this area allow you to format the text for the selected text element.<br><br>**Note:**<br>If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |

### Color tab

Use the following table as a guide for setting the Appearance properties on the Color tab for other components. To set the color for a component element, click the Color Selector icon and from the "Color" dialog box, select the color you want to use. Note that some options are only available for specific component types.

| Option | Description |
| --- | --- |
| Color Tab | |
| Background Color | Calendar, Grid, and Panel Set components only<br><br>Applies to the background area behind component elements. |
| Month Color | Calendar component only<br><br>Applies to the heading bar that contains the month name. |
| Day of the Week Color | Calendar component only<br><br>Applies to the heading bar that contains the days of the week. |
| Panel Background | Panel Set component only<br><br>Applies to the background area on each panel. |
| Label Header | Panel Set component only<br><br>Applies to the panel header color. |
| Labels | Panel Set component only<br><br>Applies to the text color for items in the drop-down list.<br><br>You can set a different color for when the item is not active (Default color), when the mouse pointer is over the item (Over Color), and when the item is selected (Selected Color). |

| Option | Description |
|---|---|
| Label Background | Panel Set component only

Applies to the background color behind items in the drop-down list.

You can set a different color for when the item is not active (Default color), when the mouse pointer is over the item (Over Color), and when the item is selected (Selected Color). |
| Date Text | Calendar component only

Applies to the text color for the dates in the month.

You can set a different color for when the date is not active (Default color), when the mouse pointer is over the date (Over Color), and when the date is selected (Selected Color). |
| Date Background | Calendar component only

Applies to the area behind the dates.

You can set a different color for when the date is not active (Default color), when the mouse pointer moves over the date (Over color), and when the date is active (Selected Color). |
| Buttons | Calendar and Panel Set components only

Applies to buttons on the component. Depending on the component, you can set a different color for the following elements:
• the button background for active, pressed, or disabled buttons
• the symbol for active, pressed, or disabled buttons
• the button label for default and pressed buttons |
| Button | Print Button, Local Scenario Button, and Reset Button components only

Applies to the button color.

You can set a different color for when the button is pressed and when it is not. |
| Labels | Print Button, Local Scenario Button, and Reset Button components only

Applies to the text color on the button.

You can set a different color for when the button is pressed and when it is not. |
| Scroll Bar | Panel Set component only

Set the color for the parts of the scroll bar. |

### 3.2.7.4 Other component alerts properties

You can set up alerts for the Grid components.

To set up alerts, select the component and open the Properties panel. Then click the Alerts tab, select the Enable Alerts checkbox and set the alert options. For more information about setting alert options, see Understanding Alerts.

### 3.2.7.5 To configure Trend Analyzer components

A Trend Analyzer component has been placed on the canvas.

Use the Trend Analyzer component to analyze spreadsheet data and identify a trend in the data. You can also configure the Trend Analyzer to forecast future trends based on the existing data. The resulting trend and forecast data can then be added to a component in your model.

1. Select the Background component and open the "Properties" panel.
2. On the General view, set the following options:

| Option | Description |
| --- | --- |
| Data | Specifies the source data that the component will use. Click the Cell Selector icon to select the range in the spreadsheet. |
| Trend/Regression Type | This option specifies the pattern the data might conforms to. Select an appropriate trend type from the list or select Use Best Fit to have Xcelsius pick the curve type that best fits the data. If you select Polynomial, in Order (Polynomial only) list, select the desired polynomial order from 2 to 6. |
| Analyzed Data Destination | Specifies the location in the spreadsheet to insert the analyzed data. |
| Number of Forecast Periods | If the number of cells in the Analyzed Data Destination range is greater than the number of cells in the Data range, specify the number of periods you want to forecast. Type a number in the box or click the "Cell Selector" icon to bind this value to a cell in the spreadsheet.<br><br>**Tip:**<br>If you bind this value to a cell in the spreadsheet and link that cell to another component, you can use that component to specify the number of periods to forecast within the set range. |

| Option | Description |
|---|---|
| Equation Type Destination | To see this option, click More. Specifies a location for the type of equation used to analyze the data. |
| Equation Destination | To see this option, click More. Specifies a location for the equation used to analyze the data. |
| R2 Value Destination | To see this option, click More. Specifies a location for the R2 value for the analysis. |
| F Value Destination | To see this option, click More. Specifies a location for the F value for the analysis. |

3. Click the Behavior view to set dynamic visibility options. For more information about dynamic visibility, see Managing the Visibility of Components.

## 3.2.8 Using Art and Background components

Art and background components provide visual enhancements for models. You can use them to enhance and customize your dashboards. The background components can also be used to import images or Flash movies into your models.

Xcelsius 2008 includes the following Art and Background components:

**Background**

Backgrounds are prebuilt artwork that you can add to your models. You can use them to create visual divisions or groups of related components. Unlike Container components, backgrounds cannot contain or hold other components. They simply provide a visual background.

**Ellipse**

The Ellipse or Oval component allows you to create visual divisions or outlines to define or contain sections or components.

**Image Component**
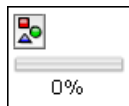


Use this component to display JPEG images or SWF files. The Image component allows you to add your own logos or artwork to models. You can also import Flash files into this component to add videos, animations, and other interactive elements.

**Line**

The Vertical or Horizontal Line component allows you to create visual divisions or outlines to define or contain sections or components.

**Rectangle**



The rectangle component allows you to create visual divisions or outlines to define or contain sections or components.

## 3.2.8.1 To configure Background components

A Background component has been placed on the canvas.

Use the Background component to change the appearance of your model. You can apply different backgrounds to different area to visually group items.

**Tip:**
You can also use the Background component to control user ability to interact with other components. To do that, place the Background component over the other item. Set the Background component to 100% transparency and enable Block Mouse Actions. At runtime, users will not be able to click or change values on the underlying component. For more information, see Disabling User Input.

1. Select the Background component and open the "Properties" panel.
2. On the General view, set the following options:

| Option | Description |
|---|---|
| Background Color | Click the Color Selector icon to select a color for the background. For more information about using the Color Selector tool, see Setting colors for component elements. |
| Transparency | To allow components behind the background to be visible to users, move the slider to the right to increase the transparency of the component. To hide items behind the background, move the slider to the left. |
| Border Scale | Sets the thickness of the border around the background. Move the slider to the right to increase the border thickness. |
| Block Mouse Events | If the Image component is placed over other components, selecting this option prevents users from using the mouse to interact with the underlying components. For more information, see Disabling User Input.<br><br>**Note:**<br>For imported SWF files, mouse events are blocked even if this option is not selected. |

3. Click the Behavior view to set dynamic visibility options. For more information about dynamic visibility, see Managing the Visibility of Components.

## 3.2.8.2 To configure Image components

An Image component has been placed on the canvas.

If you want to add images, videos, animations, or other interactive elements, you can import them into the Image component. This allows you to add your own logos and artwork to models. You can even insert another exported Xcelsius model.

**Note:**
The Image component supports standard RGB JPG file formats and SWF files. It does not support progressive JPGs or JPGs with CMYK color profiles.

When you add an image to a model, you can choose to embed the file in the SWF file or reference the external file. Files that are not embedded, are saved to a folder with the same name and location as the exported model and are loaded as needed. For the model and external files to load correctly, the folder and external files must be in the same folder location as the exported model.

Inserted SWF files may have external assets such as other SWF files, images, or XML files. If these assets are referenced with relative paths, those paths must be available from the location where the host model is run. For example, if a SWF file located at z:\file.swf loads an external image from z:\images\myImage.jpg, and you add that SWF file to your model at c:\visualization.xlf. When you open your model, the added SWF file will attempt to load the referenced image from c:\images\myImage.jpg, which is the relative location from the model's location.

**Caution:**

If a model references an external file, when the model runs, Adobe security restrictions apply. When the model is run locally, the SWF file or the host application file must be made trusted. If the file is run on a web server, there must be a cross-domain policy file. For more information, see Adobe Flash Player Security Restrictions.

Use the Image component to add JPEG images (standard RGB format only) and SWF files to models. For example, you could add your own logos or artwork, as well as videos, animations, and other interactive elements. You could even add another exported Xcelsius model.

**Note:**

The Image component does not support Progressive JPEGs or JPEGs with CMYK coloring.

1. Select the Image component and open the "Properties" panel.
2. On the General view, before you import an image file, specify the Resize Image to Component option. When the image is imported, its size is set according to this setting. If you select this option, the image size is adjusted to fit within the size of the Image component. If this option is not selected, the Image component size is adjusted to fit the actual size of the image.
3. Under JPG or SWF Options, click Import.
4. On the "Open" dialog box, navigate to the JPG or SWF file and click Open.
5. Set the following options:

| Option | Description |
|---|---|
| Embed File | Select this file to add a copy of the image file to the model. If you embed the image it becomes part of the Xcelsius SWF file and is always available. It will add to the size of the SWF file and may affect performance. If this option is not selected, the image file is loaded when the user views it.<br><br>**Note:**<br>You can load an Xcelsius SWF file into the image component, but you cannot embed the file in the model. |
| Transparency | Use this option to allow objects behind the Image component to be seen through the components. Move the slider to the right to increase its transparency and move it to the left to reduce its transparency. |
| Block Mouse Events | If the Image component is placed over other components, selecting this option prevents users from using the mouse to interact with the underlying components. For more information, see Disabling User Input.<br><br>**Note:**<br>For imported SWF files, mouse events are blocked even if this option is not selected. |
| Hide SWF Background Color | For imported SWF files, select this option to make the SWF background invisible. If this option is not selected, the SWF background can be seen in the model. |

6. Click the Behavior view to set dynamic visibility options. For more information about dynamic visibility, see Managing the Visibility of Components.

### 3.2.8.2.1 Embedding vs. referencing external files

When you import image or Flash files into the Image component, you can embed the file or reference it in an external location. Each option has its own advantages and disadvantages. The following table describes the differences between embedding external files in the model and referencing them.

| Embedded Files | Referenced Files |
|---|---|
| The external file is built into the SWF file when the model is imported. | The external file is copied to a folder with the same name and location as the exported SWF file. |
| The model (either XLF or SWF) can be distributed as a single file. | The model (either XLF or SWF) must be distributed along with the external file folder, and the folder and external file must remain in the same relative location to the model. |
| The external file loads when the model loads, even if it is hidden through dynamic visibility. | The external file loads as needed. If it is hidden through dynamic visibility, the file isn't loaded. |

| Embedded Files | Referenced Files |
|---|---|
| The model take longer to load because it has to load the external file as well. | The model loads quickly because it doesn't have to load the external file immediately. |
| If dynamic visibility is configured to load external files, it works faster because the files are already loaded. | If dynamic visibility is configured to load external files, it takes longer to show hidden components because it has to load the external files first. |
| When hidden with dynamic visibility, external files maintain their state. | When hidden with dynamic visibility, external files are closed and revert to their default state. |
| If the external files changes, the model must be re-exported. | If the external file changes, it can be replaced in the external file folder and the model will load it without having to re-export the model. |

### 3.2.8.3 To configure Ellipse or Rectangle components

An Ellipse or Rectangle component has been placed on the canvas.

Use the Ellipse or Rectangle components to change the appearance of your model. You can add these shapes to different areas of the canvas to visually group items.

1. Select the component and open the "Properties" panel.
2. On the General view, under the "Enable Border" area, set the following options:

| Option | Description |
|---|---|
| Enable Border | Select this option display an outline around the shape. |
| Color | If Enable Border is selected, click the Color Selector icon to set the border color. |
| Thickness | If Enable Border is selected, type or select a border thickness from the list. |
| Transparency | If Enable Border is selected, to allow components behind the border to be visible, move the slider to the right to increase the transparency of the border. To cover items behind the border, move the slider to the left. |

3. Under the Fill area, set the following options:

| Option | Description |
|---|---|
| Type | From the list select one of the following options: <br>• None - the shape has no fill and is completely transparent. <br>• Solid - the shape is filled with a solid color. <br>• Linear (gradient) - the shape color changes from one side to the other. <br>• Radial (gradient) - the shape color changes from the center of the shape to the edge. |
| Color | If Type is not set to None, click the Color Selector icon to select the color for the shape or gradient. |
| Transparency | If Type is not set to None, to allow components behind the shape to be visible, move the slider to the right to increase the transparency of the shape fill. To cover items behind the shape, move the slider to the left. |
| Gradient Preview | If Type is set to Linear (gradient) or Radial (gradient), this Preview panel illustrates how the color transitions for the gradient. To adjust the gradients in the shape, do any of the following: <br>• To add another gradient, move the mouse over the Preview panel and, when you see a Plus icon, click the panel. <br>• To change start or end positions of the gradient, drag the gradient markers that are below the Preview panel. <br>• To change the color of a gradient. click the gradient marker below the Preview panel, then click the Color Selector icon and select a color. <br>• To change the transparency of a gradient, click the gradient marker below the Preview panel, then on the Transparency slider, move the marker to increase or decrease the visibility. |
| Rotation | If Type is set to Linear (gradient), use this option to adjust the gradient axis. Enter a value between 0 and 360 to rotate the gradient axis. |

4. Click the Behavior view to set dynamic visibility options. For more information about dynamic visibility, see Managing the Visibility of Components.

**Related Topics**

• Setting colors for component elements

## 3.2.8.4 To configure Line components

A Line component has been placed on the canvas.

Use the Horizontal Line and Vertical Line components to change the appearance of your model. You can add lines to different areas of the canvas to visually separate items.

1. Select the component and open the "Properties" panel.
2. On the General view, set the following options:

| Option | Description |
| --- | --- |
| Line Color | Click the Color Selector icon to set the border color. For more information about using the Color Selector tool, see Setting colors for component elements. |
| Thickness | Type or select a border thickness from the list. |

3. Click the Behavior view to set dynamic visibility options. For more information about dynamic visibility, see Managing the Visibility of Components.

## 3.2.9 Using the Web Connectivity components

This category contains a group of components that provides options for linking your models to the Web.

**Note:**

In Xcelsius Engage and Xcelsius Enterprise, web connectivity is built in. In addition to using these components, you can use the "Data Manager" to configure web connectivity options. For more information, see Managing data connections.

**Connection Refresh Button**

Refresh

A button that manually refreshes the connection it is linked to.

**Note:**

This component is not available in Xcelsius Present.

**Tip:**

To see an example of a model with a Refresh Button, click File > Samples and open the sample file Connection Refresh.

**Reporting Services Button**

Reporting Services
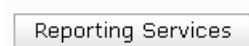
The Reporting Services Button component enables you to connect to the XRS server and select a report to use to populate the model.

**Note:**

This component is available only in Xcelsius Engage Server and BusinessObjects Xcelsius Enterprise.

### Slide Show

The Slide Show component creates a slide show of URL-based images and SWF files.

**Note:**

This component is not available in Xcelsius Present.

Unlike the normal Image Component, which requires that you first Import the file, the Slide Show component loads the image from the URL specified in the URL data source. If the Slide Show URL changes, the Slide Show component attempts to load the image from the new location. Once the image is loaded , the component transitions from the current image to the one specified at the new URL data source.

**Note:**

When an image is imported into normal Image components, Xcelsius stores its own local copy of the file internally in the XLF file. The original file is no longer accessed or used in the model. Because the file data is stored within the XLF, the XLF can be moved or emailed and the contents of the file travels with it. However, the Slide Show points to a URL, which can change at runtime. Since the image is not built into the XLF, the Slide Show component must be able to access the URL and the image must be available to load at runtime.

**Caution:**

If a model is connected to an external data source, when the model runs, Adobe security restrictions apply. When the model is run locally, the SWF file or the host application file must be made trusted. If the file is run on a web server, there must be a cross-domain policy file. For more information, see Adobe Flash Player Security Restrictions.

### SWF Loader

**Note:**

- This component is not available in Xcelsius Present.
- The Adobe Flash Player memory management method controls when inactive items are removed from memory. To avoid heavy memory consumption when using the SWF Loader:
  - Reduce the number of SWF Loader and Slide Show components included in a single model
  - Reduce the number of SWF files that the SWF Loader and Slide Show components in the model must load concurrently at run-time.

The SWF Loader component is similar to the Slide Show component; it loads SWF files from a specified URL and avoids the need to first import the files. The SWF Loader has better memory management than the Slide Show component, but it doesn't have transition effects and cannot block mouse events.

Loaded SWFs are not built into the XLF, so the SWF Loader component must be able to access the URL and the file must be available to load at runtime.

**Caution:**

If a model is connected to an external data source, when the model runs, Adobe security restrictions apply. When the model is run locally, the SWF file or the host application file must be made trusted. If the file is run on a web server, there must be a cross-domain policy file. For more information, see Adobe Flash Player Security Restrictions.

**URL Link Button**

| URL |

A button that links to a relative or absolute URL when pressed.

## 3.2.9.1 To set up Web Connectivity components

A Web Connectivity component is placed on the canvas.

1. Select the component and open the "Properties" panel.
2. On the "Properties" panel, click the General view and specify the text to display as well as a destination to insert data. For more information about the available options, see Web connectivity general properties.
3. Click the Behavior view and set the options for how the component functions in the model. For more information about the available options, see Web Connectivity behavior properties.
4. Click the Appearance view and set the visual characteristics of each component element. For more information about the appearance options, see Web Connectivity appearance properties.
5. Click File > Save and enter a location and filename for the model. Click OK.

The Web Connectivity component is added to the model and configured. To see how the model will look at run-time, on the Toolbar, click Preview.

## 3.2.9.2 Web connectivity general properties

Use the following table as a guide for setting the Text properties on the General tab.

| Option | Description |
|--------|-------------|
| Label | All except Slideshow and SWF Loader components <br><br> The text that appears on the button. Type the text in the box or click the Cell Selector icon (  ) to link it to a cell in the embedded spreadsheet. |

| Option | Description |
|---|---|
| Available Connections | Refresh Button only<br><br>In the Connections List box, select the checkbox corresponding to the external data connections to be refreshed when the user clicks this Refresh Button. To select all connections, select the checkbox at the top of the column. |
| Launch Data Manager | Refresh Button only<br><br>The items in the Available Connections list are based on connections configured in the "Data Manager". Click this button to open the "Data Manager" to add or modify external data connections. |
| URL | URL Button only<br><br>The web address this button will link to. Type the URL in the box or click the Cell Selector icon (  ) to link it to a cell in the embedded spreadsheet.<br><br>**Tip:**<br>When this value is linked to the embedded spreadsheet, the button is updated whenever the value in the cell changes. You can then configure the source cell to be updated dynamically by another component or user input allowing the URL Button to call different pages.<br><br>**Note:**<br>You must include "http://" or "https://" in the web address. |
| Window Options | URL Button only<br><br>Specifies where the web page at the URL address will open. Select New Window to open the page in a separate browser window or This Window to open the page in the same window and replace the current contents in the window. |
| Reporting Services: Select Report | Reporting Services only<br><br>Click this button to open the "Select Report" dialog box. |
| Display Parameters at Run-time | Reporting Services only<br><br>Select this option to display the report parameters when the model runs. |
| Use Service Values | Reporting Services only<br><br>Select a parameter in the list and select a service value from this list to include the values in the report. |

| Option | Description |
|---|---|
| Link to Cell | Reporting Services only<br><br>Select a parameter in the list and click the "Cell Selector" icon (  ) to use values from the embedded spreadsheet. |
| Data Mapping | Reporting Services only<br><br>To map the report data to the model, select default to use the default data maps or select Advanced and then configure the following options:<br><br>**Option** / **Description**<br><br>Mapped Ranges: The list shows currently mapped ranges. Click the Plus and Minus icons to add or delete ranges.<br><br>Selected Columns: The list shows the columns for the selected range. Select a column and click the Up and Down arrows to change the sort order. Click the X button to remove the selected column from the list.<br><br>Name: Type a name for the selected range. |
| Range | Reporting Services only<br><br>This option defines the destination location for the report data. Type or click the Cell Selector icon (  ) to select cells in the embedded spreadsheet. |
| User Report History | Reporting Services only<br><br>To enable use of the report's history, select this option. |
| URL (JPEG or SWF only) | Slide Show and SWF Loader only<br><br>The web address where the Slide Show or SWF Loader component will retrieve images. Type the URL in the box or click the Cell Selector icon (  ) to link it to a cell in the embedded spreadsheet.<br><br>For the Slide Show component, once the image file is loaded, the Slide Show transitions to the image using the transition parameters defined on the Behavior tab. Transition Behavior settings are not available for the SWF Loader component.<br><br>**Caution:**<br>Progressive JPEGs and JPEGs with CMYK coloring are not supported. |

| Option | Description |
|---|---|
| Block Mouse Events | Slide Show only<br><br>Select this option if you want to prevent users from interacting with the Slide Show component at run-time. |
| Application Domain | Slide Show and SWF Loader only<br><br>Allows you to specify which domain the slideshow or SWF Loader model will load into. The following three options are available:<br><br>_see sub-table below_ |

| Option | Description |
|---|---|
| New | Loads into a child application domain.<br><br>**Note:**<br>If the model is connected using an LCDS connector, the data will not load. |
| Current | Loads into the current application domain. The model uses only the first class definition; subsequent class definitions that are loaded in the domain (such as for the LCDS connector) are ignored. Use this option if the LCDS connection can share the main model's domain.<br><br>**Note:**<br>This option allows you to embed external codes to control the model, but if the LCDS connection is unable to share the main model's domain, data is not loaded. |
| Compatible | Loads into a compatible bootstrap loader. If you need to run an LCDS model in a slideshow or SWF Loader, this option allows the model to share the classes defined in the bootstrap loader but use its own class definitions for everything else. For example, the bootstrap loader loads the Slideshow or SWF Loader model and the Slideshow or SWF Loader model loads the LCDS model. When the LCDS model is run in a slideshow or in the SWF Loader, the data is loaded correctly.<br><br>**Note:**<br>For more information about bootstrap loaders, see the Adobe Flex documentation. |

**Related Topics**

• To set up Web Connectivity components
• Web Connectivity behavior properties

• Web Connectivity appearance properties

## 3.2.9.3 Web Connectivity behavior properties

Use the following table as a guide for setting the Behavior properties for Web Connectivity components.

| Option | Description |
|---|---|
| Common Tab | |
| Refresh After Components are Loaded | Connection Refresh Button |
| Trigger Cell | URL, Connection Refresh, and Reporting Services Buttons only<br><br>To configure an action within the model to trigger the component, you can select a cell in the embedded spreadsheet as the trigger cell. When the value in that cell is set to a specific value (for example, by another component in the model), the component responds as though it were clicked. Click the Cell Selector icon ( ) and select a cell in the spreadsheet. Then set the following options:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>When Value Changes</td><td>The component is triggered when the value in the trigger cell changes.</td></tr><tr><td>When Value Equals</td><td>The component is triggered when the value in the trigger cell is set to a specific value. Enter the value or click the Cell Selector icon ( ) to select a source location from the embedded spreadsheet.</td></tr></table> |
| Refresh Before Components are Loaded | Reporting Services Button<br><br>When this option is selected , the Reporting Services are loaded at run-time before the components are loaded. |
| Refresh Every | Reporting Services Button<br><br>The data is refreshed automatically at a set interval based on the time values set for this option. |

| Option | Description |
| --- | --- |
| Loading Message | Reporting Services Button<br><br>Type or click the Cell Selector icon (  ) to select a source location for a message to display when the data connection is loading. |
| Idle Message | Reporting Services Button<br><br>Type or click the Cell Selector icon (  ) to select a source location for a message to display when the data connection is idle. |
| Insert In | Reporting Services Button<br><br>Type or click the Cell Selector icon (  ) to select a destination location for the Loading and Idle messages. |
| Enable Load Cursor | Reporting Services Button<br><br>When this option is selected, a special cursor displays while the data connection is loading. |
| Disable Mouse Input on Load | Reporting Services Button<br><br>When this option is selected, user input is disabled while the data connection is loading. |
| Transition Type | Slide Show component only<br><br>Specifies the style of the transition between slides. |

| Option | Description |
|---|---|
| Easing Type | Slide Show component only<br><br>Specifies a method for transitioning to the next slide. Select from the following options:<br><br>| Options | Description |<br>|---|---|<br>| Slow In | The transition begins slowly and accelerates as it progresses. |<br>| Slow Out | The transition begins quickly and slows down as it progresses |<br>| Slow In and Out | The transition begins slowly and increases its speed until the middle of the transition and then slows down as it finishes. | |
| Transition Time | Slide Show component only<br><br>Specifies the amount of time the transition between images takes. Enter or select the value from the list.<br><br>**Tip:**<br>A slower transition time create a smoother transition. |
| Dynamic Visibility | All<br><br>This option allows you to specify conditions that control when the component is visible in the model. For more information about using dynamic Visibility, see Managing the Visibility of Components. |
| Animations and Effects Tab | |
| Entry Effect : Type | All<br><br>If dynamic visibility is enabled, select how you want to the component to appear on the canvas when triggered. You can select an entry effect and specify how long you want the components appearance to take and, for some selectors, whether the component makes a sound when it appears. For more information about dynamic visibility, see Managing the Visibility of Components. |

**Related Topics**

• To set up Web Connectivity components
• Web connectivity general properties
• Web Connectivity appearance properties

### 3.2.9.4 Web Connectivity appearance properties

Use the following table as a guide for setting the Appearance properties for Web Connectivity components. Note that some options are available only for specific component types.

| Option | Description |
|---|---|
| Layout Tab | |
| Show Button Background | Refresh Button and URL Button<br><br>If selected the button has an opaque background. If not selected, the button is completely transparent, which allows you to create a text only link or place the component over an imported image to create a custom button. |
| Transparency | Reporting Services, Slide Show, and SWF Loader components<br><br>Specifies whether objects behind the component are visible. A transparency of 0 means that users cannot see objects behind the component. A transparency of 100 means that the component is completely transparent and invisible to users. |

| Option | Description |
|---|---|
| Sizing Method | Slide Show and SWF Loader components only<br><br>Defines how images are sized within the bounds of the Slide Show component. Select one of the following options:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>Original Size</td><td>This image is shown at its actual size. Areas of the image that extend outside of the Slide Show are not shown.</td></tr><tr><td>Stretch</td><td>The image is stretched to fit in the bounds of the Slide Show.</td></tr><tr><td>Scale</td><td>The image is sized proportionately to fit within the bounds of the Slide Show.</td></tr></table> |
| Horizontal Alignment | Slide Show and SWF Loader components only<br><br>Defines how images are aligned from left to right within the bounds of the Slide Show. Select one of the following options:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>Center</td><td>The image is centered horizontally within the Slide Show</td></tr><tr><td>Left</td><td>The image is aligned to the left edge of the Slide Show</td></tr><tr><td>Right</td><td>The image is aligned to the right edge of the Slide Show</td></tr></table> |
| Vertical Alignment | Slide Show and SWF Loader components only<br><br>Defines how images are aligned from top to bottom within the bounds of the Slide Show. Select one of the following options:<br><br><table><tr><th>Option</th><th>Description</th></tr><tr><td>Middle</td><td>The image is centered vertically within the Slide Show</td></tr><tr><td>Top</td><td>The image is aligned to the top edge of the Slide Show</td></tr><tr><td>Bottom</td><td>The image is aligned to the bottom edge of the Slide Show</td></tr></table> |

| Option | Description |
|--------|-------------|
| **Text Tab** | |
| Label | URL, Refresh, and Reporting Services Buttons only <br><br> Defines the text that appears on the button. |
| Format Selected Text | URL, Refresh, and Reporting Services Buttons only <br><br> The settings in this area allow you to format the text for the selected text element. <br><br> **Note:** <br> If a global font is set for the document, you cannot change the font type. For more information about global fonts, see To set global font options. |
| Position | Allows you to set the position for some text elements relative to the component. |
| Offset | Allows you to adjust the position of some text elements by offsetting it relative to its set position. |
| Number Format | Allows you to set the number format for some text elements. |
| **Color Tab** | |
| Buttons | All except Slide Show and SWF Loader components <br><br> Applies to the button color. <br><br> You can set a different color for when the button is on and when it is off. |
| Labels | Input Text Area and Label component only <br><br> Applies to the label text. <br><br> You can set a different color for when the element is not active (Default color), when the mouse pointer moves over the element (Over color), and when the element is active (Selected Color). |

**Related Topics**

• Setting colors for component elements
• To set up Web Connectivity components
• Web connectivity general properties
• Web Connectivity behavior properties

## 3.2.10 Deleting components

Delete any selected components by pressing DELETE or selecting Delete from the right-click context menu.

**Tip:**
You do not need to ungroup components to delete components that are in the group.

Deleting a component can be undone pressing CTRL+Z or clicking Undo on the Edit menu.

## 3.2.11 Understanding Alerts

Alerts call the attention of the user to a specific item or action that has reached a pre-established limit. These limits, often called targets, budgets, benchmarks, and so on, are a standard to which an item is compared.

In Xcelsius 2008, you can define alerts on most charts and single-value components. When alerts are enabled, the component represents the current alert level as a color. Typically, green represents a desired condition, yellow indicates that the situation is not ideal, and red marks an issue as critical. When you define the alert, you specify which values to monitor, as well as, the alert thresholds and whether it is preferable for the values to be higher than, lower than, or as close to the target value as possible. You can also define custom colors.

Alerts are available on the following components:

| Component Type | Component |
|---|---|
| Charts | Bar, Bubble, Column, Combo, Line, Radar, Stacked Bar, Stacked Column, XY<br><br>**Note:**<br>Alerts are not available when charts display multiple series of data. |
| Selectors | Combo Box, Icon, Label Based Menu, List Box, List Builder, Ticker, Scorecard |
| Single Value | Dial, Dual slider, Gauge, Horizontal Progress Bar, Horizontal Slider, Spinner, Value, Vertical Progress Bar, Vertical Slider |
| Maps | All |
| Other | Grid |

**Related Topics**

• Using Chart components

## 3.2.11.1 To configure alerts

If you want a component to indicate when its data value reaches a specific range, you can configure and customize alerts.

1. Select the component and open the "Properties" panel.
2. On the "Properties" panel, click the Alerts view.
3. Select the Enable Alerts check box.

   **Note:**

   For Scorecard components, you can enable alerts for different columns individually. For each column that you want to show alerts for, select the checkbox in the Show column and then define the alert properties for the selected column.

   For Label-Based Menu, List Builder, List Box, and Combo Box components, in the Alert Values box, specify the values to be compared to the target values for alerts. Type a value or click the Cell Selector icon and select a source location in the spreadsheet.

4. Select one of the following methods to use for the alerts:

| Option | Description |
|---|---|
| As a Percent of Max Value | For Single Value components only. Select this option to base alerts on specified percentages of the value set on the General view for the scale Maximum Limit. |
| As Percentage of Target | Select this option to base the alerts on percentages of specified target values.<br><br>To set the target values by linking to cells in the embedded spreadsheet, click the Cell Selector icon. To manual define the target values, click the Manual Edit icon ( 📝 ).<br><br>**Note:**<br>You can set separate target values for each data point. |
| By Value | Select this option to base the alerts on values you set in the "Alert Thresholds" area. |

5. Under Alert Thresholds, set the following options:

| Option | Description |
|---|---|
| Use a Range | Select this option to select the threshold levels from cells in the embedded spreadsheet, then click the Cell Selector icon to select the cells. |
| Enter a Value | To manually define the threshold values, do the following: <br><br> <table><tr><th>To</th><th>Do this</th></tr><tr><td>Edit existing values</td><td>Click the value in the From or To column and type a new value</td></tr><tr><td>Add a value to the list</td><td>Type it in the box and click Add.</td></tr><tr><td>Delete a level</td><td>Click the Delete icon beside the value.</td></tr><tr><td>Assign colors to threshold levels</td><td>Click the Color Selector icon beside each level to set the color. For more information about using the color selector, see Setting colors for component elements.<br><br>**Note:**<br>If the Enable Auto Colors checkbox is selected, you cannot set colors for each threshold individually.</td></tr></table> |

6. To automatically define the colors assigned to each threshold level, select the Enable Auto Colors checkbox.

   **Note:**

   To manually assign colors to each threshold level, deselect this option and select the Color Selector icon beside each threshold level to set its color.

7. If Enable Auto Colors is selected, to set a different color gradient scheme, click the Auto-color icon ( ).

   The Color dialog box opens.

8. On the Color dialog box, select a color scheme from the "Custom" or "Built-in" lists, or, to create a new color gradient, click Create new gradient and set the following options:

| Option | Description |
|---|---|
| 2-Color Gradient | Select this option to include 2 colors on the alert scale. |
| 3-Color Gradient | Select this option to Include 3 colors on the alert scale. |
| Colors | For each color on the scale and for a "no data" color, set the color to use for the fill and the text. Click the down arrow beside each color to open the Color dialog box. |

9. To set the color order, select one of the following options:

- Low Values are Good - Use this option when the ideal value type is lower than the target value. For example, to represent expenses when you want them to be as low as possible.
- Middle Values are Good - Use this option when the ideal value type is as close as possible to the target value. For example, to represent inventory when you want inventory quantities to be as accurate as possible.

**Note:**
This option is only available when using percentages.

- High Values are Good - Use this option when the ideal value type is higher than the target value. For example, to represent revenue when you want revenue values to be as high as possible.

10. For Vertical Slider, Horizontal Slider, Horizontal Progress Bar, Dial, Dual Slider, and Gauge components, select where you want the alert color to appear:

| Option | Description |
|---|---|
| Background | The component background displays the alert color. |
| Marker | The marker, needle, and so on displays the alert color. |
| Value | A text box beside the component contains the current value and displays the alert color. |

Alerts are configured for the component.

## 3.2.12 Managing the Visibility of Components

When models contain too much information or too many visual components, users may have difficulty focusing on specific sets of information. If you need to display a lot of information, you can simplify the visual layout by displaying some information only when it is needed. To make your model easy to navigate you may want to re-use certain areas of the canvas and hide and show components at runtime.

Dynamic visibility allows you to control when components are visible based on the contents of a spreadsheet cell. Put simply, a component using dynamic visibility is visible when the status matches the key, otherwise the component is hidden. For example, you can add a Toggle Button to display a specific chart. The Toggle Button is configured to alternately insert *showChart* and *hideChart* into a Destination cell each time it is clicked. By linking the Chart's status to this Destination cell and setting the Chart's Key to *showChart*, the Chart becomes visible when the Toggle Button inserts the value *showChart* and hidden when the Toggle Button inserts *hideChart*.

In a more complex model, you may want to switch between several different components. To accomplish this, use the Key and a Selector. For example, a model might need to switch between different charts. You can assign each chart a unique Key, such as *chart1*, *chart2*, and so on. Then, add a List Box component to the canvas and set the source data to match the chart keys and the destination as a blank cell in the spreadsheet. When you link each chart's Status to the destination cells, each time a

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selection is made on the List Box and the chart's key is inserted into the destination cell, the chart is visible and the others are hidden.

When dynamic visibility is enabled, you can also add animation effects to how the component appears and disappears from the model.

**Tip:**
To see an example of a model with dynamic visibility, click File > Samples and open the sample file Dynamic Visibility.

**Note:**
Add-on components do not support dynamic visibility. If you want to control the visibility of Add-on components, you can place the component in a Canvas container and apply the dynamic visibility settings to the Canvas container to show or hide the Add-on component it contains.

**Related Topics**

• To set up Dynamic Visibility
• To configure entry effects for dynamic visibility
• Chart Behavior properties
• Container behavior properties
• Selector behavior properties
• Single Value component behavior properties
• Map behavior properties
• Text behavior properties
• Other component behavior properties

## 3.2.12.1 To set up Dynamic Visibility

A model containing a component is open on the canvas.

1. Select the component and open the "Properties" panel.
2. On the "Properties" panel, click Behavior > Common.
3. In the "Dynamic Visibility" area, beside the Status box, click the Cell Selector icon (  ) and select a cell in the spreadsheet that will control the component's visibility.

   **Note:**
   Do not select cells that are already bound to this component, for example, its data ranges, or those data sources will not refresh when dynamically changed.

4. In the Key box, type a value or click the Cell Selector icon (  ) and select a cell that will contain the key value for this component.

   **Note:**
   The Key box is not available unless Status has been set.

When the value in the Status cell matches the key value, the component will be visible.

5. Place a component on the canvas that you will configure to enter values into the Status cell set in step 3. Open the "Properties" panel.

   Typically, this will be a Selector component, such as a Checkbox component or a Radio Button component, but could also be a chart or a map component that is configured to insert data into the specified cells.

6. On the "Properties" panel, on the General tab, in the Source Data box, enter or select the key values for the components it is controlling.

   **Note:**

   If the selector is controlling only one component, you need to enter a key value for hiding the component as well.

7. In the Destination box, click the Cell Selector icon (  ) and select the cells selected for the Status box in step 3.

At runtime, when the user clicks the selector component, it inserts a key value into the Status cell. The dynamically visible component is visible when the inserted value matches its key value.

If desired, you can configure the component's entry effect to specify how the component appears and disappears from the model.

**Related Topics**

• Managing the Visibility of Components
• To configure entry effects for dynamic visibility

## 3.2.12.2 To configure entry effects for dynamic visibility

A model is open on the canvas and contains one or more components that are configured for dynamic visibility.

When dynamic visibility is enabled, you specify how components arrive in the model. For example, it could slide in from one side or slowly fade into few. You can also specify how long the component's entrance will take.

1. Select the component and open the "Properties" panel.
2. Click Behavior > Animations and Effects.
3. Under Entry Effect, in the Type list, select one of the following options:

| Option | Description |
|--------|-------------|
| Fade-in | The component appears in a semi-transparent state and gradually becomes solid. |
| Wipe Right | The left side of the component appears and then the remainder of the component is gradually drawn in from left to right. |
| Wipe Right-Down | The top left corner of the component appears and the remainder of the component is gradually drawn in both down and toward the right. |

**Note:**

If you select None, the component appears without any effects and you cannot set the duration for its entrance.

4. In the Duration (seconds) list, select the number of seconds the components entrance should take.

When the model is run and the component is triggered to appear, it is added to the screen using the selected entry effect and duration.

**Related Topics**

• Managing the Visibility of Components
• To set up Dynamic Visibility

# 3.2.13 Disabling User Input

Many components can be configured to allow users to modify values at runtime. If you do not want users to change data values from the model, for many components, you can adjust their configuration to prevent interaction. However, if the design requires that the component accept user input, you can use a Background component to block input.

**Note:**

For Single Value components, you can also prevent users from changing data values in two ways: bind the component to a cell that contains a formula or deselect the Enable Interaction option on the Behavior > Common  menu of the "Properties" panel.

**Related Topics**

• Single Value component behavior properties

## 3.2.13.1 To configure Background components to block user input

A component is placed on the canvas.

**Note:**

If you want to block user input in specific situations, you could use the Dynamic Visibility option to only display the transparent background in those situations. For more information about configuring dynamic visibility, see Managing the Visibility of Components.

1. From the Components browser, drag a background component onto the canvas and place it over the component for which you want to block user input.
2. Select the Background component and open the Properties panel.
3. On the General view, in the Background Color option, click the Color Selector icon and select a suitable color.
4. Set the Transparency slider to 100%.
5. Select the Block Mouse Events option.

When the model runs, if users click the component that is behind the background, the mouse click is not registered.

**Related Topics**

• Using Container components

# Working with Models

Models are visual representations of your data. By linking visual components, such as charts and gauges to your data, you can create a visual model of that data. You can also add interactive options that allow users to make adjustments to the data at the time the model runs.

At their very basic, creating models involves three steps:

1. Import or enter data into the embedded spreadsheet.
2. Add components to the canvas and link them to the spreadsheet cells where the data is stored.
3. Preview and publish your model.

Xcelsius offers numerous possibilities for laying out and formatting models. to save time, you may want to start with a predefined template. Xcelsius provides several templates that have been professionally designed for specific purposes. You can use these templates as they are or customize them for your specific needs.

In addition to using templates to quickly create models, you can create a specific look to all components in your model with themes and color schemes.

Xcelsius also includes sample models that illustrate its features and demonstrate what you can do with components. You can open these samples and explore their functionality.

**Related Topics**

• Using templates
• Using themes
• Using color schemes
• Previewing models
• Sample models

## 4.1 Using templates

If you often create models with similar components or settings, you can use a template as a starting point for new models. Templates demonstrate assorted layouts and combinations of components. Some templates are bound to sample data to illustrate how the template works, others, such as the Layout templates, are not bound to any data. When you open a template, it is inserted on the canvas as a new model. You can then add, delete, or modify the template, and save it as a new model or as a modified or new template.

Xcelsius 2008 offers a set of templates you can use to create a new model. You can also create a model starting from a blank canvas and save it as a template.

**Note:**

Templates cannot be applied to existing models. To change the look of an existing model, you can apply a different theme or change the color scheme.

**Related Topics**

• Using themes
• Using color schemes

## 4.1.1 To open a template

Rather than building your model from a blank canvas, you can use a template that contains the basic components that you want to use and customize it to suit your needs.

1. Click File > Templates.

   The "New From Template" dialog box opens. The "Category" area lists the categories available templates may be assigned to.

2. In the "Category" area, click a category.

   The "Items" area displays the available templates for that category.

3. In the "Items" area, click a template.

   In the "Preview" area, a sample of the template is displayed and, if a description was written for the template, it appears in the "Description" area.

   **Note:**

   You can click the selectors in the preview to see the intended functionality of each component.

4. When you have selected the template you want to open, click OK.

The template opens on the canvas, but is not bound to any data. You can now import a spreadsheet from Microsoft Excel or enter data in the embedded spreadsheet, as well as modify the components to create a new model or a new template.

## 4.1.2 To create a template

If you often use a similar layout and components for models, you can create templates that you can reuse for new models rather than starting from a blank canvas. For example, if you are creating a set of Portlets for use in your corporate portal, you may want to save your models as templates so you can re-use them when updates are necessary. To save a model as a template, you first save the file to the templates folder and then export the model (SWF file) to the same location.

1. Create a model that you want to save as a template.
2. Click File  > Save As.

   The "Save As" dialog box opens.

3. Navigate to the folder where the Xcelsius program is installed and then to the following location:
   `...\assets\template`.

   **Note:**
   To create a new template category, create a folder under the \template directory.

4. In the Filename list, type a file name for the template and click Save.
5. Click File  > Export  >  Flash (SWF).
6. Navigate to the templates folder where you saved the template.
7. In the File Name list, type the same file name for the SWF file that you entered for the template and click Save.

The model is saved as a template. The next time you open the templates window, your template will be available for preview and use.

## 4.2 Using themes

Themes (formerly called Skins) provide an easy way to customize your model and maintain a consistent look throughout the model. Themes control the style and properties applied to each component. Themes also include a color scheme, but you can further customize your model by changing the color scheme. If a new color scheme is applied, the components retain their style and property settings, but use the new color palette.

**Note:**
Some themes include custom styles for components that are not available in other themes, for example, the half gauge component is available only in the Graphite theme. If you change the theme, the custom components change to the default component for that category. If you want to use the custom component, you must change the theme back.

## 4.2.1 To apply a theme

If you want to change the look of your model, you can apply a theme to set the style and property settings for all components.

1. Click Format > Theme.
2. From the "Theme" list in the left panel, select a theme.

   The "Preview" area shows a sample of how the theme will look.

3. Click OK.

   The model is changed to use the styles and properties for the selected theme.

The new theme applies to all existing components and all new components. You can select individual components and change their properties.

# 4.3 Using color schemes

Color Schemes (formerly called Styles) alter the color palette used for components in your model. You can apply a color scheme to your entire model or only to specific components. Xcelsius provides numerous pre-defined color schemes that you can apply to your models or you can create your own color schemes based on an existing scheme or combination of custom colors. Color schemes do not affect the colors of fonts, text formatting, or alerts.

**Note:**

Color schemes are not transferred with XLF files. If the color scheme used by a model is not available in the XLF file, the custom color scheme continues to be used by the existing components but is not available for new components. If you want the custom color scheme to be available for new components, you must create the custom color scheme in the new file.

## 4.3.1 To change the color scheme

You can change the way your model looks by changing its color scheme. You can apply the new color scheme to new components only or choose to apply the change to existing components as well.

1. Open a model.
2. Click Format > Color Scheme.
3. In the "Color Schemes" dialog box, select the color scheme you want to apply.

   **Note:**

   To change the color scheme back to its original settings, select Current Theme Colors.

4. If you want the color change to apply to components already in the model, click Apply to Existing Components.
5. Click OK.

The color scheme for the model changes. If you selected the Apply to Existing Components option, the colors of existing components change. Otherwise, the new color scheme applies when you place new components on the canvas.

**Tip:**

You can also change the color scheme from the toolbar. Click the ▣ (Color) icon and select the color scheme you want to apply. Scroll to the bottom of the list to set the Apply to Existing Components option.

## 4.3.2 To create a custom color scheme

You can create custom color schemes by modifying the parameters of an existing color scheme.

When you create a custom color scheme, it is saved to...`\Xcelsius\assets\themes\custom`. To share the color scheme with other Xcelsius work stations, copy the custom color scheme XML file to the same file location on the other system.

1. Click Format > Color Scheme.

   The "Custom Color Scheme" dialog box opens.

2. In the "Color Schemes" dialog box, select a color scheme to modify and click Create New.

   **Tip:**

   You can also open the Custom Color Scheme dialog box from the toolbar. Click the Color Scheme icon ▣ and select Create New Color Scheme.

3. In the "Custom Color Schemes" dialog box, set the following options:

   | Option | Description |
   |---|---|
   | Name | Type a name for the new color scheme. |
   | color bar | Click the color you want to change and, from the color selector, click the color you want to change it to. |
   | Auto Match Colors | If you want Xcelsius to select a color palette based on a selected color, select the color you want to base the palette on and select this option. Move the slider to have Xcelsius adjust the palette to be more like the selected color or less like it. |
   | Advanced | If you want to set the color for specific elements in components, click Advanced. In the advanced area, click the tabs to view the elements for each component. Click the color box beside each element name and select the color you want to apply to that element. |

4. Click Save.

The color scheme for the model changes. If you selected the Apply to Existing Components option, the colors of existing components change. Otherwise, the new color scheme applies when you place new components on the canvas.

## 4.4 Previewing models

As you are designing your model, you may want to test your design, experiment with different combinations of components, colors, and layouts, and explore how it interacts with the data. When you preview a model you can interact with it as you or users would after it is published.

### 4.4.1 To preview models

A model has been created and is open on your workspace.

If you want to view and interact with a model as you would after it is published, you can preview the model.

• Click File > Preview.

**Tip:**
To preview a model, you can also click Preview in the toolbar.

Xcelsius generates an SWF file of the model and displays it on the screen. You can now interact with the model as you would after it is published. To close the preview and return to the working version of the model, follow the same step to toggle back to the working copy.

**Related Topics**
• To take snapshots of models
• To export visualization previews

### 4.4.2 To export visualization previews

A visualization has been created and is open in your workspace.

If you would like to export an SWF of your visualization to view in a browser, you can export a preview of the visualization.

• Click File > Export Preview.
  A progress bar opens on the screen.

# 4.4.3 To take snapshots of models

A model has been created and is open on the Xcelsius workspace.

When you preview a model, you can interact with the model. If you find a view that you would like to keep, you can take a snapshot of the model's data or components in their changed state.

1. On the toolbar, click Preview.

   Xcelsius generates an SWF file for your model.

2. Interact with the model and when you want to take a snapshot, click File > Snapshot and select one of the following options:

| Option | Description |
|---|---|
| Current Excel Data | Generates an Excel spreadsheet (XLS) with the current data values. <br><br> **Tip:** <br> This option can be useful for diagnosing models that are not performing as desired. |
| Flash (SWF) | Generates a Flash (SWF) file showing the current state of the components. <br><br> **Note:** <br> This option is not available in Xcelsius Present. |
| HTML | Generates an HTML file and a Flash (SWF) file that show the current state of the components. <br><br> **Note:** <br> This option is not available in Xcelsius Present. |
| PDF | Generates an Adobe PDF file showing the current state of the components. |
| PowerPoint Slide | Generates a Microsoft PowerPoint file with one slide that contains a Flash (SWF) file that shows the current state of the components. |
| Outlook | Opens a Microsoft Outlook email and attaches the Flash (SWF) file showing the current state of the components to a new message. |

The "Save As" dialog box opens.

3. Enter the location and filename for the snapshot and click Save.

# Working with Data

Xcelsius provides an embedded spreadsheet to store the source data required for each model. Source data can be entered directly into the embedded spreadsheet or you can import data from Excel. You can also copy and paste data from Excel into the embedded spreadsheet. Regardless of how you enter the data into the embedded spreadsheet, the data is not linked to any other source. If you make changes in the source Excel file, those changes are not automatically made to the data in the embedded spreadsheet. If you need to maintain the data in Excel and Xcelsius, you must make the changes in both locations or make the change in one location and import or export the changed data to the other location.

Once the data is entered into the embedded spreadsheet, you can link the components in models to specific cells in the embedded spreadsheet. You can also link cells in the embedded spreadsheet to external data sources so the data in the spreadsheet can be updated based on a live data source.

## 5.1 Understanding the embedded spreadsheet

The embedded spreadsheet is a functional Excel spreadsheet that you can work with in the same way as you would in Excel. To associate your models with specific data, you link components in models to cells in the embedded spreadsheet.

**Note:**

The embedded spreadsheet does not support all Excel functions. It does not support macros, conditional formatting, linking to other external spreadsheets, and some formula functions. For a full list of supported formula functions, see Supported Excel functions.

The embedded spreadsheet includes the Excel toolbars. If you use Excel 2003, the embedded spreadsheet shows your default toolbars. Buttons that are not related to working with data are disabled, for example the Save, Open, and Print options are handled by Xcelsius and are disabled on the embedded spreadsheet toolbar. If you use Excel 2007, the embedded spreadsheet displays the ribbon that appears at the top of the spreadsheet in Excel. Any buttons or menus not related to working with data are disabled. To add Excel functionality to the embedded spreadsheet, in Xcelsius, right-click a spreadsheet toolbar and add the toolbar that includes the desired functionality.

Xcelsius uses the regional formatting settings defined on your computer, including the settings for decimal separator, thousands separator, general format name, month, day, year, hour, minute, second, time separator, and date separator. To change the regional formatting settings, open the "Windows Control Panel", double-click Regional and Language Options, adjust the settings, and click OK.

While you are working on your model, you can display the embedded spreadsheet below the canvas. This arrangement allows you to easily see the data and bind components to cells in the spreadsheet. The embedded spreadsheet is completely independent from Excel; you can add, modify, and delete data directly within the embedded spreadsheet without having to import or re-import from Excel.

To set up the data in the embedded spreadsheet, you can:

- Import a spreadsheet from Excel. See To import Excel spreadsheets.
- Open an Excel spreadsheet and copy and paste data from it to the embedded spreadsheet. See To copy data between Excel and Xcelsius.
- Manually enter data into the embedded spreadsheet.

## 5.1.1 Preparing Excel spreadsheets for Xcelsius

Before you import an Excel spreadsheet into Xcelsius, make sure the spreadsheet provides a good structure for achieving the best performance for models in Xcelsius. Consider the following guidelines:

- Use only supported Excel functions

  For a list of supported Excel functions, see Supported Excel functions.

- Use these Excel functions with small data sets only

  The following Excel functions are supported in Xcelsius, but can affect the model's performance if used with larger data sets (over 100 rows):
  - SUMIF
  - COUNTIF
  - HLOOKUP
  - VLOOKUP

  **Note:**

  If you must access larger data sets, have the server or database perform the aggregation on the server side.

- Organize your data in a logical fashion

  To make your spreadsheet easier to understand, lay out your data in a logical fashion. Group related items together and use colors, labels, and borders to describe the structure and function of cells.

- Use colors, labels, and borders to identify data types (input and output)

  To make it easier to maintain your visual models, use colors, labels and borders to identify cells or ranges of cells in the spreadsheet and to describe their use. Adding a legend that describes what the colors represent helps maintain consistency and usability of the model.

- Place frequently used data and logic at the top of the spreadsheet

  To make it easier to select the data you want to bind to components and minimize the amount of scrolling required, place frequently used or common logic or data at the top-left of the tab in your spreadsheet.

- Use multiple tabs

  If your spreadsheet becomes large and requires a lot of scrolling to see your logic or data, consider separating data into multiple tabs (or worksheets).

## 5.1.2 To set preferences for the embedded spreadsheet

1. Click File > Preferences.
2. In the "Preferences" dialog box, from the list on the left, click Excel Options.
3. In the "Excel Options" dialog box, set the following options:

| Option | Description |
| --- | --- |
| Live Office Compatibility | Allows you to work with LiveOffice enabled spreadsheets within Xcelsius. Enabling this option may affect the performance of other Microsoft Office programs. If this option is not enabled, you must set up and work with LiveOffice in a spreadsheet outside of Xcelsius and then import the spreadsheet into Xcelsius. <br><br> Available in only Xcelsius Enterprise. |
| Maximum Number of Rows | Use this option to set the number of rows in the embedded spreadsheet that can be selected and bound to components. <br><br> Xcelsius supports an unlimited number of rows in a range selection; however, linking components to large range selections can affect the performance of models. By default, you can select a maximum of 512 rows in a range. |
| Optimize Spreadsheet | Use this option to optimize the spreadsheet for runtime. When this option is enabled, Xcelsius calculates formulas in the model when you export the model and saves them with the SWF. It takes longer to generate the SWF, but since the calculations are already complete, the file performs better at runtime. |
| Ignore Excel Formula Errors | Use this option to avoid errors appearing in models because of formula errors in the spreadsheet. When selected, any cell that contains a formula error is treated as a blank cell. <br><br> **Note:** <br> If formula errors are ignored, functions that refer to cells with errors, such as ISERROR, will not work correctly in the embedded spreadsheet. |

4. Click OK.

The changes are applied to the spreadsheet.

**Related Topics**
• Understanding the embedded spreadsheet

## 5.1.3 Synchronizing data between Excel and Xcelsius

The embedded spreadsheet in Xcelsius is not connected to the source data imported from an Excel spreadsheet. Changes made to the data in one location are not automatically updated in the other location. If you want to maintain synchronized copies of the data in Xcelsius and Excel, you can export the modified data back to Excel or copy and paste the changed cells to the source spreadsheet.

**Related Topics**
• To export data to Excel
• To copy data between Excel and Xcelsius

### 5.1.3.1 To import Excel spreadsheets

If you want to use an existing Excel spreadsheet as the source data for your model, you can import the spreadsheet into Xcelsius.

**WARNING:**
Importing an Excel spreadsheet overwrites any data currently in the embedded spreadsheet. If components have already been bound to cells in the embedded spreadsheet, when you import, the cell binding locations remain the same, but the data may change.

**Note:**
When the Excel file is imported the data is copied and is no longer connected to the original data. Editing the original source file will not change the data imported into Xcelsius.

1. Click Data > Import.

   **Note:**
   You can also use the  (Import Model) icon on the toolbar to import files.

2. In the warning dialog box, click Yes.
3. Select the spreadsheet you want to import and click OK.

The data from the selected Excel spreadsheet is added to the embedded spreadsheet.

### 5.1.3.2 To copy data between Excel and Xcelsius

You have an Excel spreadsheet that contains data you want to use in Xcelsius models.

If you want to add some data from an Excel spreadsheet to the embedded spreadsheet without importing the entire spreadsheet, you can copy the data you want in Excel and paste it into the embedded spreadsheet.

You can copy and paste data only between Xcelsius and Excel. Although you can open two instances of Xcelsius on your desktop and view the data in each embedded spreadsheet, you cannot copy and paste data from an embedded spreadsheet in one instance of Xcelsius to the embedded spreadsheet in another instance of Xcelsius that is open on your desktop.

**Note:**

When you copy cells in an Excel spreadsheet, you can paste the values and formulas into the embedded spreadsheet, but any conditional formatting is not retained.

1. Open Xcelsius on your desktop and load the model you want to add data to.
2. Open Excel on your desktop and load the spreadsheet you want to copy data from.
3. In Excel, select and copy the cells you want to add to the embedded spreadsheet.
4. In Xcelsius, select the cells where you want to paste the data, right-click and select Paste.

The copied cells are pasted into the embedded spreadsheet.

**Related Topics**

• To import Excel spreadsheets

### 5.1.4 Linking components and data

When you create models, you need to link or bind components to specific cells in the embedded spreadsheet. You can bind elements of components to cells that specify labels or those that contain data values or formulas. In addition, component elements might retrieve data from the cells they are bound to or populate those cells with values based on user input or other calculations. If you add an external data connection, the external connection must be configured to insert data in the embedded spreadsheet. Components that use the data from the external source are then bound to the cells updated by the external connection.

Once a component is bound to cells in the embedded spreadsheet, you can import updated data or modify the embedded spreadsheet and the changes are reflected by the component except in the following situations:

- If you move a range after it is bound to components, for example, to insert a heading row to the spreadsheet, Xcelsius retains the new information and changes the reference to the new range. However, if you move only part of the range, the cell reference is not updated for the bound cells and you must open the "Properties" panel for the component and re-link it to the new location.

  **Note:**

  After you move a range, insert cells to expand a range, or delete cells to decrease a range, the "Properties" panel does not display the changed range values; however, when you preview or publish the model, the component does use the new range values.

- If you change the sort order for data that is bound to components, the component updates its display when you preview or export the model. To force the component to display the new sort order in design mode, re-bind the component to the sorted cells.

If the data in your spreadsheet changes frequently, but the structure of the spreadsheet stays the same, you can generate SWF files based on the data in an external Excel spreadsheet. For example, if you need to generate the same model for multiple customers using the same spreadsheet layout with different values, after you create your model and link the components to cells in the embedded spreadsheet, you can set an option to export the SWF file using the external Excel file as the data source. Then you can update the data in the external file for each customer and generate their model without having to re-upload the spreadsheet and re-link the components.

## 5.1.4.1 To bind components to the embedded spreadsheet

When you link a component to cells in the embedded spreadsheet, you set a reference to those cells on the component's "Properties" panel. Each field that can be bound to the embedded spreadsheet, has a Cell Selector icon (  ) to its right. For more information about the options available for each component, see the Using Xcelsius 2008 Components section.

**Note:**

Xcelsius supports an unlimited number of rows in a range selection; however, linking components to large range selections can affect the performance of your model. By default, you can select a maximum of 512 rows in a range. To change this value, see To set preferences for the embedded spreadsheet .

1. On the canvas, double-click the component you want to link to the embedded spreadsheet.

   The component's "Properties" panel opens. If the "Properties" panel has been hidden, move the mouse pointer over the "Properties" panel tab to expand it.

2. Click the tab that contains the field you want to link to the spreadsheet.

   **Note:**

   For many components, fields on the General view and Behavior view can be bound to the spreadsheet.

3. Click the Cell Selector icon (  ) to the right of the field.

   The "Select a Range" dialog box opens.

4. On the embedded spreadsheet, select the cell or range of cells that you want to bind to that field.

The Select a Range box is updated to reference the selected cells.

5. In the "Select a Range" dialog box, click OK.

The component is updated to refer to the specified cells.

## 5.1.4.2 To generate a SWF file using an external data source

A model has been created and components are linked to cells in the embedded spreadsheet.

If you need to generate the same model using the same spreadsheet structure but different values, you can export the SWF using an external data source.

**Note:**

This option does not update the data in the embedded spreadsheet; it retrieves the data from the external file only to generate the SWF file. If you preview the model or export to any other format, Xcelsius uses the data in the embedded spreadsheet. In addition, the structure of the external spreadsheet must match the structure of the embedded spreadsheet. If you add or delete columns or rows in the external spreadsheet, those changes are not reflected in the generated SWF file. To make structural changes to the spreadsheet, you must re-import it and re-link the components.

1. Click File > Export Settings.

The "Export Settings" dialog box opens.

2. Select the Use Another Excel File option and in the list, click the file folder and select the spreadsheet file to use.

**Note:**

The spreadsheet must have the same structure as the embedded spreadsheet.

Click OK

3. Click File > Export > Flash (SWF).

The "Save As" dialog box opens.

4. Enter a path and name for the SWF file and click OK.

An SWF file is created using the data in the external Excel spreadsheet.

## 5.1.5 To export data to Excel

If you want to view the data in the embedded spreadsheet in Excel or synchronize the data between the embedded spreadsheet and the Excel source file, you can save the data in Excel format so you can open it using Microsoft Excel.

1. Click Data > Export.

The "Save As" dialog box opens.

2. Enter a path and name for the Excel file and click OK.

The data from the embedded spreadsheet is saved in the specified location in Excel format.

## 5.1.6 Supported Excel functions

Xcelsius 2008 supports the following Excel functions:

| ABS | ACOS | ACOSH | ADDRESS | AND | ASIN |
|---|---|---|---|---|---|
| ASINH | ASSIGN | ATAN | ATAN2 | ATANH | AVEDEV |
| AVERAGE | AVERAGEA | AVERAGEIF | BETADIST | CEILING | CHAR |
| CHOOSE | CODE | COLUMN | COLUMNS | COMBIN | CONCATE-NATE |
| CORREL | COS | COSH | COUNT | COUNTA | COUNTBLANK |
| COUNTIF | COVAR | DATE | DATEVALUE | DAVERAGE | DAY |
| DAYS360 | DB | DCOUNT | DCOUNTA | DDB | DEGREES |
| DEVSQ | DGET | DIVIDE | DMAX | DMIN | DOLLAR |
| DPRODUCT | DSTDEV | DSSTDEVP | DSUM | DVAR | DVARP |
| EDATE | EFFECT | EOMONTH | EVEN | EXACT | EXP |
| EXPONDIST | FACT | FACTDOUBLE | FALSE | FIND | FISHER |
| FISHERINV | FIXED | FLOOR | FORECAST | FV | GE |
| GEOMEAN | GT | HARMEAN | HLOOKUP | HOUR | IF |
| IFERROR | INDEX | INDIRECT | INT | INTERCEPT | IPMT |
| IRR | ISBLANK | ISERR | ISERROR | ISEVEN | ISLOGICAL |
| ISNA | ISNONTEXT | ISNUMBER | ISODD | ISTEXT | KURT |
| LARGE | LE | LEFT | LEN | LN | LOG |
| LOG10 | LOOKUP | LOWER | MATCH | MAX | MAXA |
| MEDIAN | MID | MIN | MINA | MINUS | MINUTE |
| MIRR | MOD | MODE | MONTH | N | NE |
| NETWORK-DAYS | NORMDIST | NORMINV | NORMSINV | NOT | NOW |
| NPER | NPV | OFFSET | OR | PEARSON | PERCENTILE |

| PER-CENTRANK | PERMUT | PI | PMT | POWER | PPMT |
|---|---|---|---|---|---|
| PRODUCT | PV | QUARTILE | QUOTIENT | RADIANS | RAND |
| RANDBE-TWEEN | RANGE_COLON | RANK | RATE | REPLACE | REPT |
| RIGHT | ROUND | ROUNDDOWN | ROUNDUP | ROW | ROWS |
| RSQ | SECOND | SIGN | SIN | SINH | SLN |
| SLOPE | SMALL | SQRT | STANDARDIZE | STDEV | STDEVA |
| STDEVP | SUBTOTAL | SUM | SUMIF | SUMPROD-UCT | SUMSQ |
| SUMX2MY2 | SUMX2PY2 | SUMXMY2 | SYD | TAN | TANH |
| TEXT | TIME | TIMEVALUE | TODAY | TRUE | TRUNC |
| TYPE | VALUE | VAR | VARA | VARP | VARPA |
| VDB | VLOOKUP | WEEKDAY | WEEKNUM | WORKDAY | YEAR |
| YEARFRAC | | | | | |

## 5.2 Using external data sources

**Note:**

External data sources are not available in Xcelsius Present.

In Xcelsius 2008, you can connect your models to an external data source. When the model runs, the data is updated from the external source so the model is based on current information rather than information that was available when the model was created.

The Data Manager is a centralized location where you can add and configure all external data sources.

## 5.2.1 Managing data connections

**Restriction:**

The Data Manager is not available in Xcelsius Present.

The "Data Manager " provides a central location where you can manage and configure all connectivity options in your model including Flash Variables and XML maps.

You can use the "Data Manager" to add several types of XML-compliant data connections to your model. In addition, when you open a model, the Data Manager detects any existing connection types. Excel XML maps and Live Office Connections (supported in Xcelsius Enterprise only) are not available to add as a new connection, but they are supported as existing connections in data sources created outside of Xcelsius.

**Note:**

To see a list of existing connections in a model, open the model and click Data > Connections to open the "Data Manager" dialog box. In the "Data Manager" dialog box, click Add. The existing connections are listed under "Existing Connections".

In Xcelsius Engage, models can have multiple connections, but they can only have one of each of the following connection types:

•   Web Service Connections
•   XML Data
•   Flash Variables
•   Crystal Reports Data Consumer

After one of these connection types has been added to a model, that connection type is no longer available in the list of connections types and can't be added to the model again.

**Note:**

If you add external data connections to a model, Adobe Flash Player security restrictions may affect users ability to run the model. For more information, see Adobe Flash Player Security Restrictions.

Xcelsius supports the following types of connections:

| Connection Type | Description |
|---|---|
| QaaWS | **Note:**<br>Available in Xcelsius Enterprise only .<br><br>Query as a Web Service (QaaWS) is a tool that allows you to create custom web services for queries to SAP BusinessObjects Enterprise. Using QaaWS, you can define a query from a universe and then publish that query as a standalone web service. In Xcelsius Enterprise, you then create a QaaWS connection to allow the model to securely access the web service.<br><br>For more information about creating QaaWS, see the *Query as a Web Service Guide* available on the SAP Help Portal (help.sap.com) under SAP BusinessObjects Enterprise.<br><br>For information about configuring QaaWS connections, see To configure QaaWS connections. |
| Web Service | Web Services support interoperable interaction over a network using the HTTP Protocol. When you add Web Services to models, they have a live connection to data.<br><br>For information about configuring Web Service connections, see To configure Web Service connections. |
| XML Data | An XML data connection connects to an external source through HTTP. When added to a model, this connection can send live model data to an external source to request specific information, for example, if a date is sent to a server script, the script could return the sales totals for that date.<br><br>For information about configuring XML Data connections, see To configure XML Data connections. |
| Flash Variables | Flash variables provide a way to pass data or variables from HTML to the _root level of a Flash movie. When you export your SWF as HTML, the Flash Variables are generated in the OBJECT and EMBED tags.<br><br>**Note:**<br>Flash Variables are not secure. Do not send sensitive or confidential information through Flash Variables, for example, passwords.<br><br>For information about configuring Flash Variable connections, see To configure Flash variable connections. |

| Connection Type | Description |
|---|---|
| Portal Data | **Note:**<br>Not available in Xcelsius Engage.<br><br>Portal data connections allow you to define parameters in models or send and receive data from another web part in SAP BusinessObjects Dashboard Builder, IBM WebSphere or Microsoft SharePoint. The portal connection can be set up to receive data from another web part (consumer), to provide data to another web part (provider), or to allow users to define the parameter values at runtime.<br><br>For information about configuring Portal Data connections, see Configuring Portal Data connections. |
| Crystal Reports Data Consumer | The Crystal Reports Data Consumer connections allow you to retrieve information from Crystal Reports and embeds metadata in the SWF file that Crystal Reports uses to bind Crystal Reports data with the Xcelsius model.<br><br>For information about configuring Crystal Reports Data Consumer connections, see To configure Crystal Reports Data Consumer connections. |
| FS Command | The FS command connection allows you to include Flash FS commands in models. FS Commands allow Flash to run JavaScript statements in a web browser.<br><br>**Note:**<br>In Xcelsius 2008, External Interface connections are the preferred connection for transferring data using JavaScript in a web browser. If you use FS Commands in your model, consider the Adobe Flash security restrictions. For more information, see FSCommand restrictions.<br><br>For information about configuring FS Command connections, see To configure FSCommand connections. |
| LCDS | The LiveCycle Data Services (LCDS) connection streams real-time data through Adobe LiveCycle Data Services. When you add an LCDS connection in a model, data changes are pushed to the model when they occur at the source.<br><br>For information about configuring LCDS connections, see To configure LCDS connections. |

| Connection Type | Description |
| --- | --- |
| External Interface | External Interface connections allow you to expose selected data ranges in the embedded spreadsheet to transfer data to the SWF file using JavaScript when the file is embedded in an HTML web page.<br><br>For information about configuring External Interface connections, see To configure External Interface connections. |
| Excel XML Maps | When you import an Excel spreadsheet that has an XML map, Xcelsius retains the defined structure of the XML file and how it maps to the data within the spreadsheet. When you include Excel XML Maps connections in a model, the data can be dynamically refreshed from the XML file each time the model loads, at designated intervals, or when the user clicks a refresh button.<br><br>For information about configuring Excel Data Maps connections, see Working with Excel XML maps. |
| Live Office | **Note:**<br>Available only in Xcelsius Enterprise.<br><br>If you create a model from a LiveOffice-enabled Excel spreadsheet (Excel spreadsheets constructed from managed Crystal Reports or Web Intelligence data), the Live Office connection allows you to make the model data refreshable against the source data.<br><br>For information about configuring Live Office connections, see Using Live Office Data Connections. |

**Related Topics**

• Using external data sources

## 5.2.1.1 To add an external data connection

If you want the data in a model to update based on the data in an external source, you can use the Data Manager to add an external data connection.

**Caution:**

If a model is connected to an external data source, when the model runs, Adobe security restrictions apply. When the model is run locally, the SWF file or the host application file must be made trusted. If the file is run on a web server, there must be a cross-domain policy file. For more information, see Adobe Flash Player Security Restrictions.

1. Click Data  > Connections.

    The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select a connection type from the list.

3. Configure the connection. For more information about configuring data connections, see the instructions to configure specific connection types in this guide.

## 5.2.1.2 To remove data connections

You can use the Data Manager to delete data connections from model.

1. Click Data > Connections.

   The "Data Manager" dialog box opens.

2. Select the connection you want to remove and, from the bottom of the connections list, click the Delete button ( ✕ ).

The selected connection is deleted from the model.

## 5.2.1.3 To configure QaaWS connections

A web service has been created using QaaWS (Query as a Web Service) and you have the URL for accessing the web service.

**Note:**
This Data Connection is available only in Xcelsius Enterprise.

Use a QaaWS connection to create a live connection (using a web service) to data in SAP BusinessObjects Enterprise.

**Caution:**
If you include external data connections in models, security restrictions in Adobe Flash Player may prevent users from accessing the data source. For more information, see Adobe Flash Player Security Restrictions.

1. Click Data > Connections.

   The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select Query as a Web Service.

3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Name | A name for the connection. |
| WSDL URL | Type the URL for the WSDL generated by the QaaWS, or select it from the list. Then, click Import.<br><br>The model is linked to the QaaWS. The Method, Web Service URL, and Input, and Output values defined in the QaaWS are displayed in the associated fields on the page. |
| Method | |

| Option | Description |
|---|---|
| | When you import the WSDL, this list displays the methods defined in the web service. Select the method you want to use for this connection. QaaWS may generate the following methods: <br><br> <table><thead><tr><th>Method</th><th>Description</th></tr></thead><tbody><tr><td>RunQueryAsAService</td><td>This web service call is generated for index unaware prompts. The input and output parameter sets are the same as for RunQueryAsAServiExce-Ex method except for the input Prompt for Year values. This method requires an Enter_Year_As string as the prompt value for year.<br><br>For more information about these methods and the parameters available, see the *Query as a Web Service Guide* available on the SAP Help Portal at help.sap.com.</td></tr><tr><td>RunQueryAsAServiceEx</td><td>This web service call is generated for index aware prompts. The input and output parameter sets are the same as for RunQueryAsAServiceEx method except for the input Prompt for Year values. This method requires an instance of LovValueIndex for year.<br><br>For more information about these methods and the parameters available, see the *Query as a Web Service Guide* available on the SAP Help Portal at help.sap.com.</td></tr><tr><td>Valueof_</td><td>This method is generated only when QaaWS encloses at least one prompt and is intended to provide a list of values for the prompt it is named after.</td></tr></tbody></table> |
| Web Service URL | |

| Option | Description |
|--------|-------------|
| | When you import the WSDL, this box displays the Web Service URL defined in the QaaWS.<br><br>**Tip:**<br>If you want to control the Web Service URL value through Flash Variables, you can copy the URL provided by the WSDL to a cell in the embedded spreadsheet.<br><br>Then click the Cell Selector icon (  ) to link the Web Service URL box to that cell. To point to a different server, you can then set up Flash Variables to update the cell with a different URL. |
| Input Values | When you import the WSDL, the required inputs and prompts defined for the web service are displayed in this list. To set a value for each prompt, select the Input object from the list then set the Read From option to map it to your Xcelsius model.<br><br>**Note:**<br>QaaWS Input objects include a user ID and password for Business Objects. Xcelsius will generate a logon screen to prompt users for these values as required. The values and behavior of these prompts is based on the Authentication configuration defined in the QaaWS. Unless you want to set these items to specific values, you generally do not need to specify values or map them to your Xcelsius model on this page.<br><br>**Caution:**<br>If you enter specific username and password values here, those values are stored in the XLF and SWF files without encryption. For security reasons, it is best not to enter specific values for these input items. |

| Option | Description |
|--------|-------------|
| Read From | If the Input Values list includes prompts defined in the QaaWS, select the Input item and then click the Cell Selector icon (  ) to select a cell from the embedded spreadsheet where the selected object will retrieve its value. |
| Output Values | When you import the WSDL, the output parameters for the Results objects in the QaaWS are displayed in this list in a tree structure, along with some additional parameters created by the QaaWS. When using a QaaWS web service, the Results objects output is stored in the table node under the rows node.<br><br>**Note:**<br>To see the data type for results objects, move the mouse pointer over the object.<br><br>To add the result values for a single object to your model, select an Output object from the list, then set the Insert In option to map it to your Xcelsius model.<br><br>You can also map all objects in an enclosing folder in a single step. Click the enclosing folder to see the number of columns required for the objects within that folder. Then click the "Cell Selector" icon (  ) and select a range in the spreadsheet that is large enough to contain the specified number of columns. The number of rows required depends on the amount of data you expect to receive. |
| Insert In | For the selected Output value, click the Cell Selector icon  to select a cell from the embedded spreadsheet to store the values retrieved by the QaaWS.<br><br>**Note:**<br>By default, Xcelsius allows up to 512 rows to be retrieved and inserted into the embedded spreadsheet. To increase the number of rows allowed, see To set preferences for the embedded spreadsheet . |

4. Click the Usage tab and set the refresh and message options. For more information, see To set refresh optionsand To create load and idle messages.

Once the data is available in Xcelsius, you must map components to the data. Mapping a component to QaaWS is the same as mapping it to the embedded spreadsheet. For more information about mapping components to data, see Linking components and data.

**Related Topics**

• Managing data connections
• To add an external data connection

## 5.2.1.4 To configure Web Service connections

A Web Service has been created and you have a WSDL URL.

**Note:**

This Data Connection is available only in Xcelsius Enterprise.

Use a Web Service connection to add a live service connection (using a web service) to a model.

**Caution:**

If you include external data connections in models, security restrictions in Adobe Flash Player may prevent users from accessing the data source. For more information, see Adobe Flash Player Security Restrictions.

**Tip:**

If you are connecting to SAP BusinessObjects Enterprise using a web service, use a QaaWS connection.

1. Click Data > Connections.

   The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select Web Service.

3. On the Definition tab, set the following options:

| Option | Description |
| --- | --- |
| Name | Type a name for the connection. |
| WSDL URL | Type the URL for the WSDL generated by the Web Service, or select it from the list. Then, click Import. <br><br> The model is linked to the Web Service and the methods, web service URL, and Input and Output values available in the Web Service are added to those lists. |
| Method | The available methods are defined by the WSDL specified in the WSDL URL box. If there is there is more than one method, select the method that you want to use for this connection. |
| Web Service URL | The available URLs are defined by the WSDL file specified in the WSDL URL box. Select the URL that you want to use for this connection. When the model runs, it will use this URL, not the WSDL URL. <br><br> **Tip:** <br> If you want to control the Web Service URL value through Flash Variables, you can copy the URL provided by the WSDL to a cell in the embedded spreadsheet. <br><br> Then click the Cell Selector icon ( ) to link the Web Service URL box to that cell. To point to a different server, you can then set up Flash Variables to update the cell with a different URL. |

| Option | Description |
|---|---|
| Input Values | When you import the WSDL, the required inputs defined for the web service are displayed in this list. To set a value for each item, select the Input object from the list then set the Read From option to map it to your Xcelsius model. |
| Read From | If the Input Values list includes items that required input, select the Input item and then click the Cell Selector icon (  ) to select a cell from the embedded spreadsheet where the selected object will retrieve its value. |
| Output Values | When you import the WSDL, the output parameters for the Results objects in the web service are displayed in this list.<br><br>**Note:**<br>To see the data type for results objects, move the mouse pointer over the object.<br><br>To add the result values for a single object to your model, select an Output object from the list, then set the Insert In option to map it to your Xcelsius model.<br><br>You can also map all objects in an enclosing folder in a single step. Click the enclosing folder to see the number of columns required for the objects within that folder. Then click the "Cell Selector" icon (  ) and select a range in the spreadsheet that is large enough to contain the specified number of columns. The number of rows required depends on the amount of date you expect to receive.<br><br>The available values are set by the WSDL file. Select an Output object from the list then set the Insert In option to map it to your Xcelsius model.<br><br>**Note:**<br>Repeat for each value you want to use in the model. |
| Insert In | For the selected Output value, click the Cell Selector icon  to select a cell from the embedded spreadsheet to store the values retrieved by the web service.<br><br>**Note:**<br>By default, Xcelsius allows up to 512 rows to be retrieved and inserted into the embedded spreadsheet. To increase the number of rows allowed, see To set preferences for the embedded spreadsheet . |

4.  Click the Usage tab and set the refresh and message options. For more information, see To set refresh options and To create load and idle messages.
5.  If your Web Service connection requires information to be passed in the SOAP header, click the Advanced tab. Type the information in HTML format or click the Cell Selector icon (  ) to select cells in the embedded spreadsheet that contain the information.

**Note:**

When you use the Cell Selector ⬛ icon, the <soap:Header> HTML tags are automatically added to the text values in the cell. For example, the selected cell would only need to contain "<username>joe</username> <password>1234</password>".

**Related Topics**

• Managing data connections
• To configure QaaWS connections

## 5.2.1.5 To configure XML Data connections

XML Data Connections allow you to refresh model data from an external source using HTTP and to send live data from models to external sources. For example, if a model has an XML Data connection, users could use the model to submit information and collect data for forms. When you configure the XML Data connection, you can specify how and when the data will be refreshed from the source.

**Caution:**

If you include external data connections in models, security restrictions in Adobe Flash Player may prevent users from accessing the data source. For more information, see Adobe Flash Player Security Restrictions.

The XML Data connection sends and loads functionality simultaneously through one URL. The send ranges are sent to the URL prior to retrieving the load data. This lets you create scripts that examine the sent data and return data that corresponds to the sent values—much like a web request. For example, if a date was sent to a server script, the script could return the sales figures for that date.

Excel ranges are mapped to XML using a row-column structure. For example, a one-row, three-column range named "ExampleRange" would be represented in XML as:

```
<variable name="ExampleRange">
  <row>
    <column> Row1 Column1 value </column>
    <column> Row1 Column2 value </column>
    <column> Row1 Column3 value </column>
  </row>
</variable>
```

where "Row1 Column1 value" would be the actual value of the cell in the first row and first column of the range, and so on.

The entire group of ranges is encapsulated within <data> tags.

When the model loads, the XML is translated into Excel ranges using the reverse process.

**Note:**

XML Data connections support a simple row/column structure. If you need to access more complex XML data sources, use an XML Map connection.

1. Click Data > Connections.

   The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select XML Data.

3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Name | Type a name for the connection. |
| XML Data URL | Type the URL for the XML data or click the Cell Selector icon ( ) to select cells from the embedded spreadsheet.<br><br>**Note:**<br>Include "http://" for hyperlinks. |
| MIME Type | If more than one type is available, select the MIME type to use for this data. |
| Enable Load | Select this option to load (or receive) the XML data from the specified URL into the specified range when the connection is triggered.<br><br>Select a range from the list or click the Add icon  to add a new range and then set the Name and Range values for that range.<br><br>Click the Remove icon  to delete a range from the list.<br><br>**Note:**<br>Click Preview XML to see the structure of the XML that the model must have to receive data from the external data source. |
| Name | If you select the Enable Load option, for each range in the list, type a name or use the Cell Selector icon ( ) to select a name from the embedded spreadsheet. |
| Range | If you select the Enable Load option, for each range in the list, type a range or use the Cell Selector icon ( ) to select the range from the embedded spreadsheet where the retrieved data will be saved. |
| Enable Send | Select this option to send the XML data to the specified URL from the specified ranges when the connection is triggered. The translated ranges are sent in HTTP format using the POST method.<br><br>Select a range from the list or click the Add icon  to add a new range and then set the Name and Range values for that range.<br><br>Click the Remove icon  to delete a range from the list.<br><br>**Note:**<br>Click Preview XML to see the structure of the XML that the model must have to send data to the external data source. |

| Option | Description |
| --- | --- |
| Name | If you select the Enable Send option, for each range in the list, type a name or use the Cell Selector icon (  ) to select a name from the embedded spread-sheet. |
| Range | If you select the Enable Send option, for each range in the list, type a range or use the Cell Selector icon (  ) to select the range from the embedded spreadsheet. |
| Import Named Ranges | |

4. Click the Usage tab and set the refresh and message options. For more information, see To set refresh options and To create load and idle messages.

**Related Topics**

• Managing data connections

## 5.2.1.6 To configure Flash variable connections

If you export your model to HTML you can add a Flash Variable connection to pass values into your model as it loads. When you configure the Flash Variable connection, you specify a name and define where the values are stored in the spreadsheet.

You can use Flash Variables to send global session variables that you want your model to consume and re-use. For example, you can send session tokens, user IDs, Web Service URLs, and parameters passed from other embedded scripts or controls.

**Note:**

Flash Variables are not secure. Do not send sensitive or confidential information through Flash Variables, for example, passwords.

When you run the SWF in a web page, the Adobe Flash player enables it to consume data directly from the HTML. If you are dynamically generating your HTML page, you can pass variables into the SWF when it loads. You can also use JavaScript to dynamically change the variables during runtime using an External Interface connection, which allows other HTML embedded controls to pass data into the SWF without reloading the HTML page.

The Adobe Flash player also enables a SWF to consume data directly from defined parameters within a browser or path for which it is loaded. This method allows one SWF to pass parameters to another SWF that is loaded on a separate HTML page.

**Caution:**

If you include external data connections in models, security restrictions in Adobe Flash Player may prevent users from accessing the data source. For more information, see Adobe Flash Player Security Restrictions.

1. Click Data > Connections.

   The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select Flash Variables.

3. On the Definition tab, set the following options:

| Option | Description |
| --- | --- |
| Name | Type a name for the connection.<br><br>Use only numbers, letters, and underline. Do not start the name with a number and do not include spaces in the name. |
| Variable Format | Select whether to send the variables to the SWF in XML or CSV format. |
| Variable Data | Select a range from the list or click the Add icon ⊞ to add a new range and then set the Name and Range values for that range.<br><br>Click the Remove icon ⊟ to delete a range from the list. |
| Import Named Ranges button | Use this button to import named ranges from the spreadsheet. |

4. Click the Usage tab and set the refresh and message options. For more information, see To set refresh options and To create load and idle messages.

**Related Topics**

• Managing data connections

## 5.2.1.7 Configuring Portal Data connections

Portal Data connections allows SWF-to-SWF communications when models are deployed in SAP BusinessObjects Dashboard Builder, IBM WebSphere or Microsoft SharePoint environments. The Portal Data connection can be configured as a provider (sends data to another SWF (portlet, also known as a web part in SharePoint) or as a consumer (receives data from another SWF (portlet)). You can also set up the Portal Data connection to allow user input during run-time. For more information about deploying Xcelsius models in a portal environment, see the Portal Integration Kit documentation available in the Portal Integration Kit folder on your installation CD.

**Caution:**

If you include external data connections in models, security restrictions in Adobe Flash Player may prevent users from accessing the data source. For more information, see Adobe Flash Player Security Restrictions.

**Related Topics**

• Managing data connections

### 5.2.1.7.1 To configure Portal consumer/provider connections

If you want a model to provide data to another portlet, set up the Portal Data connection as a provider. If you want it to receive data from another portlet, set up the Portal Data connection as a consumer. Only Xcelsius 2008 Portal portlets can consume information from a model that is using the Portal Provider connection.

1. Click Data > Connections.
2. On the "Data Manager" dialog box, click Add and select Portal Data.
3. On the Definition tab, set the following options:

| Option | Description |
| --- | --- |
| Connection Type | To configure this connection to send data to another portlet, set this option to "Provider". To configure it to receive data from another portlet, set it to "Consumer". |
| Range Name | Type a name for the range. **Note:** This name is displayed when you connect portlets together in portals. If you don't specify a name, the connection is not available for connecting portlets. |
| Range Type | Select from the following options to define the amount of data to pass: <br> • Cell -- a single cell from another web part. <br> • Row -- a single row with multiple columns. <br> • Table -- multiple rows and columns. <br><br> Cell and row are usually used for passing data between models. In SharePoint, tables are used to pass data from a Portal list. |
| Range | Type or click the Cell Selector icon (  ) to select the area on the embedded spreadsheet where the incoming data will be retrieved from (provider) or written to (consumer). |
| Parameters | Define the parameter ranges that users can set from within the portal. To add a range, click the Plus icon, then select each range and set its name, range, and type values. |

| Option | Description |
|--------|-------------|
| Name | Type a name for the parameter or click the Cell Selector icon (  ) to link the name to a cell in the embedded spreadsheet.<br><br>**Note:**<br>The entered name will appear in the "Property" dialog box for the model in SharePoint. If you do not enter a name, the parameter will not be listed as a parameter in SharePoint. |
| Range | Type the area in the spreadsheet where the parameters are set or click the Cell Selector icon (  ) to select the range from the spreadsheet. |
| Type | Select one of the following parameter types:<br><br>| Options | Description |<br>|---------|-------------|<br>| Text | To set text-based data within the XLF, for example, chart titles. |<br>| Number | To set numeric-based data, for example, alert levels. |<br>| Check Box | To toggle the value of a cell between zero and one. This option can be useful for showing or hiding components using dynamic visibility. |<br>| Date | To define a date in the XLF. It sets the format to Date and uses a true date value within the XLF, for example, users can set date ranges for data access or for the amount of data to display. |<br>| List Box | To build user selection options into the parameters. This option allows you to specify set values that users can select to ensure their entry is compatible with the model. Text, Number, Check Box, and Date types do not restrict user entries. | |
| Entries | Available only when List Box is selected in the Type list.<br><br>Set the values users are able to select from the list box. Click the Cell Selector icon (  ) to select the values from the embedded spreadsheet. |
| Default Selection | Available only when List Box is selected in the Type list.<br><br>Specify the values to use if the user doesn't make a selection in the list box. |

4. If you are defining a provider connection, click the Usage tab to set the refresh options. For more information about setting refresh options, see To set refresh options.

**Related Topics**

• Managing data connections

- Configuring Portal Data connections
- To configure a Portal Data connection for user input

**5.2.1.7.2 To configure a Portal Data connection for user input**

To define parameters that users can customize from within a portal, set up a Portal Data connection with the Connection Type set to "None".

1. Click Data > Connections.
2. On the "Data Manager" dialog box, click Add and select Portal Data.
3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Connection Type | To configure this connection for user input, set this option to "None". |
| Parameters | Define the parameter ranges that users can set from within the portal. To add a range, click the Plus icon, then select each range and set its name, range, and type values. |
| Name | Type a name for the parameter or click the Cell Selector icon (  ) to link the name to a cell in the embedded spreadsheet.<br><br>The entered name will appear in the Property dialog box for the model in SharePoint. If you do not enter a name, the parameter will not be listed as a parameter in SharePoint. |
| Range | Type the area in the spreadsheet where the parameters are set or click the Cell Selector icon (  ) to select the range from the spreadsheet. |

| Option | Description |
|---|---|
| Type | Select one of the following parameter types: <br><br> <table><tr><th>Option</th><th>Description</th></tr><tr><td>Text</td><td>Sets text-based data within the XLF, for example, chart titles.</td></tr><tr><td>Number</td><td>Sets numeric-based data, for example, alert levels</td></tr><tr><td>Check Box</td><td>Toggles the value of a cell between zero and one. This option can be useful for showing or hiding components using dynamic visibility.</td></tr><tr><td>Date</td><td>Defines a date in the XLF. It sets the format to Date and uses a true date value within the XLF, for example, users can set date ranges for data access or for the amount of data to display.</td></tr><tr><td>List Box</td><td>Builds user selection options into the parameters. This option allows you to specify set values that users can select to ensure their entry is compatible with the model. Text, Number, Check Box, and Date types do not restrict user entries.</td></tr></table> |
| Entries | Available only when List Box is selected in the Type list. <br><br> Set the values users are able to select from the list box. Click the Cell Selector icon (  ) to select the values from the embedded spreadsheet. |
| Default Selection | Available only when List Box is selected in the Type list. <br><br> Specify the values to use if the user doesn't make a selection in the list box. |

**Related Topics**

• Managing data connections
• Configuring Portal Data connections
• To configure a Portal Data connection for user input

## 5.2.1.8 To configure Crystal Reports Data Consumer connections

You have set up the embedded spreadsheet and components in your model to correspond to the Crystal Reports data you will be connecting to.

If you want to embed an Xcelsius model in Crystal Reports and receive data from Crystal Reports for the model, you can add a Crystal Reports Data Consumer connection.

**Note:**

You can add only one Crystal Reports Data Consumer connection to a model.

1. Click Data > Connections.
2. On the "Data Manager" dialog box, click Add and select Crystal Reports Data Consumer.
3. On the Definition tab, set the following options:

| Option | Description |
|--------|-------------|
| Row Headers | Click the Cell Selector icon (  ) to select the row header labels from the embedded spreadsheet. |
| Column Headers | Click the Cell Selector icon (  ) to select the column header labels from the embedded spreadsheet. |
| Data | Click the Cell Selector icon (  ) to select the data range from the embedded spreadsheet. |
| Description | Type an optional description for the connection. |

Export the model in Flash (SWF) format and embed the SWF in the Crystal Reports file. When you open the SWF file with the Flash Data Expert in Crystal Reports, an Xcelsius tab will be available in the Flash Data Binding Expert so you can connect the SWF to the Crystal Reports data.

## 5.2.1.9 To configure FSCommand connections

FSCommand connections are available in Xcelsius Enterprise only

**Note:**

In Xcelsius 2008, External Interface connections are the preferred connection for transferring data in a web browser using JavaScript when the SWF is embedded in an HTML web page.

For detailed information about FS Command, see the Adobe Flash support site at
http://www.adobe.com/support/flash/action_scripts/actionscript_dictionary/actionscript_dictionary372.html

1. Click Data > Connections.
2. On the "Data Manager" dialog box, click Add and then select FS Command.
3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Name | Type a name for the connection. |
| Command | Type a command for the FS Command, or click the Cell Selector icon (  ) and select a command from the spreadsheet. |
| Parameters | Type a parameter value for the FS Command, or click the Cell Selector icon (  ) and select a value from the spreadsheet. |

**Related Topics**

• Managing data connections

## 5.2.1.10 To configure LCDS connections

The Xcelsius LiveCycle Data Services (LCDS) is installed on your system. For more information, see the LCDS Installation Guide available in the Xcelsius LCDS Install Guide available in the *LiveCycle Data Services* folder in your Xcelsius Installation Package. And, a model and embedded spreadsheet are set up and ready to connect to LCDS.

To provide up-to-the-second views of your business data using Adobe LiveCycle Data Services, a component of Adobe LiveCycle Enterprise Suite software, add an LCDS connection to your model. The LCDS connection streams real-time data into your models without users having to request a data refresh.

1. Click Data > Connections.
2. On the "Data Manager" dialog box, click Add and then select LCDS Connections.
3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Host | In the list, select the LCDS host connection to associate with this connection or click Host to add a new host. Then, on the "Manage Hosts" dialog box, click Add and enter a name for the host and the URL for the LCDS server using the following format: `http://<server name>:<port>/<LCDS context path>/xcelsius` where `server name` is the name of the LCDS server, `port` is the server port number, and `LCDS context path` is the context root for the virtual directory. For example, `http://localhost:8700/flex/xcelsius` |
| Query | To retrieve information about the available feed destinations from the selected host, click Query . |
| Available Data Destinations | Select one of the available feed destinations to bind to the CX model. |
| Advanced | To expand the settings available for the selected feed destination, click Advanced. |
| Current Destination ID | Available when you click Advanced. The identification number of the LCDS feed destination. |
| Current Destination Channel Type | Available when you click Advanced. The type of channel (or communication protocol) being used. |
| Current Destination Channel URL | Available when you click Advanced. The URL associated with the selected feed destination. |
| Destination Data | This section lists the data elements available from the selected host, their data type (number, text, or true/false), and their shape or structure (singleton - a single value, !D - a column or row of values, or 2D - a table of values). Select a data element, and then click the Cell Selector icon (  ) at the bottom right to select the range in the embedded spreadsheet where the data will be stored. |

### 5.2.1.11 To configure External Interface connections

External Interface connections allow you to expose selected data ranges in the embedded spreadsheet to an external source so data can be copied into and out of the exported model. It also provides built-in eventing so the model instantly recognizes when the data source changes. When you configure the

External Interface connection, you specify a name and define where the values are stored in the spreadsheet.

**Caution:**

If you include external data connections in models, security restrictions in Adobe Flash Player may prevent users from accessing the data source. For more information, see Adobe Flash Player Security Restrictions.

1. Click Data  > Connections.

   The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select External Interface.

3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Range Name | Type a name for the range. Use only numbers, letters, and underline. Do not start the name with a number and do not include spaces in the name. |
| Range Type | Select one of the following options: |

| Option | Description |
|---|---|
| Cell | The range consists of a single cell. |
| Row/Column | The range consists of a single row or column. |
| Table | The range consists of more than one column or row. |

| Option | Description |
|---|---|
| Range | Click the Cell Selector icon and select the cells in the range. |
| Access | Specifies whether the range is for input, output, or both. Select one of the following options: |

| Option | Description |
|---|---|
| Read | The external application can read data from the range. |
| Write | The external application can write data to the cells in the range. |
| Read/Write | The external application can read data in the range, as well as write data to the cells in the range. |

**Related Topics**

• Managing data connections

**5.2.1.11.1 Setting up external interface connections**

When you export a model that contains an External Interface connection to HTML, Xcelsius creates an HTML file and a SWF file. The HTML file includes Object and Embed tags needed to display the SWF file. You must add JavaScript code to the HTML file so that when the HTML file is opened in a web browser, the embedded Xcelsius SWF file calls out to notify JavaScript when its External Interface connection is ready to be used. For more information about adding the JavaScript code, see Using Xcelsius External Interface Connection methods from JavaScript.

**Note:**

After you export models that contain External Interface connections, you can combine the HTML into a single file. However, each Object/Embed tag pair represents a different SWF file and must have a unique Name/ID. Each SWF model is identified by its Name/ID.

**Tip:**

For additional HTML samples using the Xcelsius External Interface Connection methods, see the sample files available in the *...Xcelsius\Connectivity\External Interface* folder in your Xcelsius Installation Package.

Example:

This example shows the HTML output for a SWF file containing an external interface connection:

```
<HTML>
<HEAD>
<TITLE>eic2.swf</TITLE>
</HEAD>
<BODY>
<OBJECT classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://fpdownload.adobe.com/pub/shockwave/cabs/ flash/swflash.cab#version=9,0,0,0"

WIDTH="849" HEIGHT="300" id="myMovieName">
<PARAM NAME="movie" VALUE="eic2.swf">
<PARAM NAME="quality" VALUE="high">
<PARAM NAME="bgcolor" VALUE="#FFFFFF">
<PARAM NAME="play" VALUE="true">
<PARAM NAME="loop" VALUE="true">
<PARAM NAME=bgcolor VALUE="#FFFFFF">
<EMBED src="eic2.swf" quality=high bgcolor=#FFFFFF WIDTH="849" HEIGHT="300"
NAME="myMovieName" ALIGN="" TYPE="application/ x-shockwave-flash"
play="true" loop="true"
PLUGINSPAGE="http://www.adobe.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash">
</EMBED>
</OBJECT>
</BODY>
</HTML>
```

Note that `<PARAM NAME="movie" VALUE="eic2.swf">` specifies the SWF filename and, if you combine the HTML output for multiple SWFs into a single file, the `id="myMovieName"` and `NAME="myMovieName"` must be updated to a unique name/id for each SWF included in the file.

**5.2.1.11.2 Using Xcelsius External Interface Connection methods from JavaScript**

After you export the SWF model to an HTML file, you must edit the HTML file so the embedded Xcelsius SWF file can notify JavaScript by calling the `setSWFIsReady` method when its External Interface connection is ready to be used.

**Tip:**

For additional HTML samples using these methods, see the sample files available in the *...Xcelsius\Connectivity\External Interface* folder in your Xcelsius Installation Package.

*setSWFIsReady Callback function*

Add this function to the HTML output below the Object/Embed tags for the SWFs so the HTML file will respond to the SWF call.

```
setSWFIsReady(movieName)
```

**Parameters**

movieName (String) is the OBJECT tag id or EMBED tag name used to refer to the SWF in JavaScript.

**Example**

The following example shows the HTML for a single SWF model called "myMovieName" and the added function to respond to the SWF call.

```
<HTML>
<BODY>
<OBJECT
classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://fpdownload.adobe.com/pub/shockwave/cabs/flash/swflash.cab#version=9,0,0,0"
WIDTH="270" HEIGHT="35" id="myMovieName">
<PARAM NAME="movie" VALUE="mymovie.swf">
<PARAM NAME="quality" VALUE="high">
<PARAM NAME="bgcolor" VALUE="#FFFFFF">
<PARAM NAME="play" VALUE="true">
<PARAM NAME="loop" VALUE="true">
<PARAM NAME=bgcolor VALUE="#FFFFFF">
 <EMBED src="mymovie.swf" quality=high bgcolor=#FFFFFF WIDTH="270" HEIGHT="35"
NAME="myMovieName" ALIGN="" TYPE="application/x-shockwave-flash"
play="true" loop="true"
 PLUGINSPAGE="http://www.adobe.com/shockwave/download/index.cgi?P1_Prod_Version=ShockwaveFlash">

 </EMBED>
</OBJECT>
<SCRIPT language="JavaScript">

function setSWFIsReady(movieName)
{
// Add additional code using external Interface connection
// methods...
}
</SCRIPT>
</BODY>
</HTML>
```

### *describeDataSources method*

Use this method to retrieve an XML representation of the ranges defined in the SWF external interface connection.

**Syntax**

```
describeDataSources ()
```

**Returns**

(String) XML representation of the ranges as a string.

### *getDataSource method*

Use this method to retrieve the current value for the SWF External Interface Connection range.

**Syntax**

```
getDataSource (rangeName):Object
```

**Parameters**

*rangeName* (String) is the name of the range in the SWF External Interface Connection.

**Returns**

The current range value.

### *setDataSource method*

Use this method to set the current value for the SWF External Interface Connection range.

**Syntax**

```
setDataSource (rangeName, value)
```

**Parameters**

- *rangeName* (String) is the name of the range in the SWF External Interface Connection.
- *value* (Object) is the new value.

### *addDataSourceChangeEventListener method*

Use this method to register a JavaScript callback handler function that the SWF will call when a specific readable range value changes.

**Syntax**

```
addDataSourceChangeEventListener (rangeName, handlerFunctionName, sendCurrentValue)
```

**Parameters**

- *rangeName* (String) is the name of the range in the SWF External Interface Connection.
- *handlerFunctionName* (String) is the name of the JavaScript function the SWF calls when the range changes. For details, see `handlerFunctionName Callback method`.
- *sendCurrentValue* (Boolean) indicates if the current value should be passed to the SWF through the callback. It can be set to true (send the current value) or false (don't send the current value).

**Example**

The following example registers the callback function to listen for changes to the slider range and pass the current value and any changes to the range to myRangeHandler function:

```
addDataSourceChangeEventListener("slider", "myRangeHandler", true);
```

### *handlerFunctionName Callback method*

Use this method to define the *handlerFunctionName* used in the `addDataSourceChangeEventListener` method.

**Syntax**

```
functionName (movieName, rangeName)
```

**Parameters**

- *functionName* (String) is the name of the function the addDataSourceChangeEventListener method registered as the callback function in the *handlerFunctionName* parameter.
- *movieName* (String) is the value specified in the OBJECT tag called "id" and the EMBED tag called "name" that identify the applicable SWF file.
- *rangeName* (String) is the name of the range in the SWF External Interface Connection.

**Example**

The following example defines the function "*myRangeHandler*" that is used in the addData SourceChangeEventListener method. The OBJECT tag id and EMBED tag name value is "myMovieName" and the range name is "myRangeName":

```
function myRangeHandler (movieName, rangeName);
{
    // Get the movie object (browser dependant).
    var movie = null;
    if (navigator.appName.indexOf("Microsoft") != -1)
    {
        // Browser is Internet Explorer.
        movie = window[movieName];
    }
    else
    {
        // Browser is not Internet Explorer.
        movie = document[movieName];
    }

    // Get the movie current range value.
        var newValue = movie.getDataSource(rangeName);

    // Add additional code using external Interface connection methods...

}
```

*removeDataSourceChangeEventListener method*

Use this method to remove (unregister) a JavaScript callback handler function.

**Syntax**

```
removeDataSourceChangeEventListener (rangeName, handlerFunctionName)
```

**Parameters**

- *rangeName* (String) is the name of the range in the SWF External Interface Connection.
- *handlerFunctionName* (String) is the name of the function the addDataSourceChangeEventListener method was using as the callback function when the range changed.

**Example**

The following example sets the SWF to stop listening for changes to the Slider range:

```
removeDataSourceChangeEventListener ("slider", "myRangeHandler");
```

## 5.2.1.12 Working with Excel XML maps

In Microsoft Excel 2003 and 2007, you can embed XML documents and schemas into spreadsheets. When you add an XML schema to a spreadsheet, you create an XML map. The XML map allows you to map cells in the spreadsheet to elements in the XML schema. These maps can be used to translate XML content from a remote data source to the rows and columns of a spreadsheet. If you want to load XML data directly into your model, you can include XML maps in the embedded spreadsheet in Xcelsius.

By default, XML functionality is not included in the embedded spreadsheet in Xcelsius. You can define the XML maps in Excel. When you import the spreadsheet into Xcelsius, it retain the link to the XML source and the cell mappings to the XML schema. If you want to work with the XML maps directly in Xcelsius, you can enable the XML features in the embedded software.

**Note:**
Data that has been mapped using the Excel mapping functionality can be manually refreshed by using a Connection Refresh button in your model.

**Note:**
If a Dynamic URL is used with the XML Map feature and an interval refresh, it must be bound to an Excel cell that contains a formula.

### 5.2.1.12.1 To add Excel XML maps to models

You have set up an XML data source.

To add an XML map to the embedded spreadsheet, you can set up the map in the Excel spreadsheet and then import the spreadsheet into Xcelsius or, if XML features are enabled in Xcelsius, you can create the XML map directly in Xcelsius. For more information about creating Excel XML maps, see the Microsoft Excel Online Help. Once the map is available in the spreadsheet, you can add components to the canvas and link them to the spreadsheet, and add an Excel XML map data connection to retrieve data from the XML source.

1. To add an Excel XML map to the embedded spreadsheet, do one of the following:
   - If you set up the XML map in your Excel spreadsheet, import the Excel spreadsheet. For more information about importing spreadsheets, see To import Excel spreadsheets.
   - To create the XML map directly in Xcelsius:
     a. On the embedded spreadsheet, for Excel 2007, click the Developer tab and then click Import XML Data, or for Excel 2003, on the toolbar, click the Import XML Data.
     b. On the Import XML dialog box, in the File Name list, type the URL for your XML data source and click Open.
     c. If the XML content doesn't incorporate a schema definition, Excel can create a schema based on the source data. Click OK.
     d. On the Import Data dialog box, select where you want to store the data and click OK.

e. Embed the URL that will be used to fetch data in the underlying spreadsheet, for example, enter a static query (the same URL used to import the XML data) in a cell in the spreadsheet.

f. Set up input cells in the spreadsheet and convert the static query to an interactive query using a formula that reads the values from the spreadsheet cells.

2. Add components to your model and link them to the cells in the spreadsheet. For more information about adding components, see Using Chart components.

3. Click Data > Connections.

4. On the Data Manager dialog box, click Add and select Excel XML Map Connections.

An Excel XML Map connection is added to the list of connections.

**Note:**

The Excel XML Map Connections option only adds a connection if an Excel XML Map is defined in the embedded spreadsheet.

5. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Name | Type a name for the connection. |
| XML Data URL | Select the location where the model will get updated data. You can map this to the URL where the XML data is stored or to the cell in the spreadsheet where you defined an interactive query formula. |

6. To set the refresh and load status options, click the Usage tab. For more information about setting these options, see To set refresh options and To create load and idle messages.

7. Save your model and export it to a suitable format.

### 5.2.1.12.2 Enabling XML in the embedded spreadsheet

The Xcelsius embedded spreadsheet does not make all Excel features available by default. If you want to define XML maps in Xcelsius, you need to enable XML features in the embedded spreadsheet. The procedure to enable XML features depends on which version of Excel you are using.

*To enable XML features with Excel 2003*

In Excel 2003, to use the XML features in Xcelsius, you must add them to the Excel toolbar.

1. If Xcelsius or Excel are running, close both applications.

**Note:**

To make sure there are no instances of either program still running, view the process in the Windows Task Manager. There should be no processes named Xcelsius or Excel in the list of running processes.

2. Launch Excel 2007.

This should be the only instance of Excel running.

3. In Excel, click Tools > Customize.

4. On the "Customize" dialog box, click the Toolbars tab, click New, and enter a name for the toolbar, for example, XML Toolbar. Click OK.

   An empty, floating toolbar is created.

5. In the "Customize" dialog box, click the Commands tab.

6. In the "Categories" list, select Data, then in the "Commands" list, select XML Source, Import XML Data, and XML Map Properties. Drag these items to the floating toolbar you created in step 4.

7. Drag the floating toolbar and park it along the other Excel toolbars at the top of your application window, and then close Excel.

The next time you start Xcelsius, the new XML toolbar should be available.

*To enable XML features with Excel 2007*

In Excel 2007, the XML features are available in the Developer ribbon tab.

1. If Xcelsius or Excel are running, close both applications.

   **Note:**
   To make sure there are no instances of either program still running, view the process in the Windows Task Manager. There should be no processes named Xcelsius or Excel in the list of running processes.

2. Launch Excel 2007.

   This should be the only instance of Excel running.

3. In the main application menu of Excel 2007, click Excel Options.

4. Under Popular options, select Show Developer Tab in the Ribbon and click OK.

The next time you start Xcelsius, the Developer tab should be available in the ribbon.

## 5.2.1.13 To set refresh options

A data connection has been defined for the models.

If you add a QaaWS, Web Service, XML Data, FS Command, Portal data, or Live Office connection to a model, you can specify how and when the data for that connection will be updated for the model.

**Note:**
If you add a Connection Refresh Button component to a model, you can also set refresh options for that component. When refresh options are set in the Data Manager, the data is refreshed when the model runs and before components are loaded. When refresh options are set for the Connection Refresh Button, the refresh options are applied when the component loads in the model. For more information about using the Connection Refresh Button component, see Using the Web Connectivity components.

1. Click Data  > Connections.

   The Data Manager dialog box opens.

2. Click the connection you want to set refresh options for.

**Note:**

You can only set refresh options for QaaWS, Web Service, XML Data, FS Command, Portal, and Live Office data connections.

3. Click the Usage tab.
4. On the Usage tab, set the following options:

| Option | Description |
|---|---|
| Refresh Before Components are Loaded | **Note:** For QaaWS, Web Services, XML, and Live Office data connections only. Select this option if you want to refresh the data each time the model loads and use that data as the initial data for the model (if you use a Reset Button component, it will reset the data to the values from the last time the model was loaded). |
| Use Query Default Data | **Note:** For SAP NetWeaver BW connections only. Select this option if you want to refresh the data each time the model loads. |
| Refresh Every | **Note:** For QaaWS, Web Services, and XML Data connections only. Select this option to automatically refresh the data at specific intervals. In the first list, select the interval value and in the second list, select the time unit (minutes, seconds, and so on). |
| Refresh on Trigger | In the Trigger Cell box, type or select the cells that will trigger a refresh. Then select one of the following options: <br> • When Value Changes <br> • When Value Becomes and enter the value that will trigger the refresh. |

**Related Topics**

• Managing data connections
• To configure QaaWS connections
• To configure Web Service connections
• To configure XML Data connections
• Integrating with SAP NetWeaver BW
• Using Live Office Data Connections

## 5.2.1.14 To create load and idle messages

A model has been created and a data connection has been defined for QaaWS, Web Services, or XML Data.

When you create a model that has a QaaWS, Web Services, or XML Data connection, you can define messages that will be displayed while the model loads or is idle. You can also specify whether the cursor will be visible during loading and whether mouse input will be available.

1. Click Data > Connections.

   The "Data Manager" dialog box opens.

2. Click the connection you want to set messages for and click the Usage tab.

3. Under Load Status, set the following options:

| Option | Description |
| --- | --- |
| Loading Message | Type or select a message to display while the model is loading. |
| Idle Message | Type or select a message to display while the model is idle. |
| Insert In | Type or use the Cell Selector icon (  ) to select the cells in the embedded spreadsheet where the loading and idle messages will be inserted. |
| Enable Load Cursor | Select this option to display the cursor while the model is loading. |
| Disable Mouse Input on Load | Select this option to prevent users from entering mouse input while the model is loading. |

**Related Topics**

• Managing data connections
• To configure QaaWS connections
• To configure Web Service connections
• To configure XML Data connections
• Integrating with SAP NetWeaver BW

# Integrating with the SAP Data Sources

## 6.1 Integrating with the SAP BusinessObjects Enterprise

Xcelsius Enterprise enables you to create interactive presentations from managed SAP BusinessObjects Enterprise data using SAP BusinessObjects Live Office connections. You can also store and manage XLF and SWF files on the SAP BusinessObjects Enterprise or Crystal Reports Server where any user with appropriate permissions can view the XLF and SWF files.

**Restriction:**

Xcelsius supports managed Crystal reports only. If you have unmanaged files, you must move them to a managed environment to refresh SAP BusinessObjects Live Office connections in Xcelsius. For more information about moving to a managed environment, see "Best Practices for Prompting" in the *Crystal Reports User's Guide* available at help.sap.com.

Using the Live Office connections in SAP BusinessObjects Xcelsius Enterprise and the Live Office Web Services in SAP BusinessObjects Enterprise XI Release 2 (XI R2) or Crystal Reports Server XI R2, you can create and refresh models against managed Enterprise data.

**Note:**

*   The functionality discussed in this chapter is only supported in SAP BusinessObjects Enterprise XI R2 and Crystal Reports Server XI R2.
*   Single Sign-on is not supported.

## 6.1.1 Using Live Office Data Connections

Live Office Data Connections allow you to create models using Excel spreadsheets constructed from managed Crystal Reports or Web Intelligence data and refresh that data in the model from within InfoView or, with a connection to the Crystal Reports Server or SAP Enterprise system, from outside InfoView.

Before you can add a Live Office data connection to your model, you must have a Live Office-enabled spreadsheet. A Live Office-enabled spreadsheet includes data that is actually a View created from either a managed Crystal Reports document or a managed Web Intelligence document. You can created Live Office-enabled spreadsheets in Microsoft Excel outside of Xcelsius and then import them into models to add Live Office data connections.

If you want to work with Live Office in Xcelsius, you must have Live Office installed and, in Xcelsius, Live Office Compatibility mode must be enabled. For more information about enabling Live Office Compatibility mode, see To set preferences for the embedded spreadsheet .

### 6.1.1.1 To add and configure Live Office data connections

SAP BusinessObjects Live Office is installed on your machine and a Live Office-enabled spreadsheet has been created or imported in Xcelsius.

Use a Live Office data connection when you want to use data from managed Crystal Reports or Web intelligence documents in a model and make it refreshable against the source data.

**Note:**
The Live Office data connection option is not available until a Live Office-enabled spreadsheet is added to Xcelsius.

1. Click Data > Connections.
2. On the "Data Manager" dialog box, click Add and select Live Office.
3. On the Definition tab, set the following options:

| Option | Description |
| --- | --- |
| Name | Displays the name of the Live Office connection. |
| Session URL | If your SAP BusinessObjects Enterprise or Crystal Reports Server has a default Web Services installation, replace the webserver in this default URL with the name of your Central Management Console (CMC) |
| Ranges | This option controls how many rows of data are returned.<br>**Note:**<br>It does not affect the number of columns. |

4. Click the Usage tab and set the refresh and message options. For more information, see To set refresh options and To create load and idle messages.

The model is connected to a Live Office data source and, at runtime, the data will refresh as defined in the refresh options settings.

### 6.1.1.2 Passing parameters to Live Office

When a model has a Live Office data connection, you can set up the model to insert data into the spreadsheet and pass those values back to Live Office to retrieve specific data from the data source.

### 6.1.1.2.1 To pass parameters to Live Office

A model has been created with a Live Office-enabled spreadsheet, a Live Office data connection, and it requires user input for the parameters when it is refreshed.

When you adjust the Single Value component in the SWF file, you receive a prompt to log on to your Enterprise system. When you have successfully logged on, the data is refreshed and the new value or values are reflected in your SWF file.

1. Place a Single Value component such as a dial or a slider on the canvas.
2. On the General view of the Single Values properties browser, click the Cell Selector button next to the Data field.
3. Click the cell that contains the bound parameter and then click OK.
4. Add and configure a Live Office connection. For more information, see To add and configure Live Office data connections.
5. On the Usage tab, click the Cell Selector button beside the Trigger Cell field.
6. Click the cell that contains the bound parameter and then click OK.
7. Ensure that Trigger on Change only is selected.

   Configuring the Trigger Behavior this way causes the SWF to refresh each time there is a change to the cell and in this case, the parameter value.

8. Click the Preview button to generate a SWF file.

## 6.1.1.3 Updating LiveOffice connection settings after system migration

When content is migrated from one SAP BusinessObjects Enterprise system to another, the location of the Live Office Web Service changes. When the Web Service location changes, the configuration of the Live Office data connection will no longer be correct and you will not be able to refresh the model data.

To update the Live Office Web Services location for the model without having to open each individual file, you can modify web.config file or web.xml file directly.

**Note:**
Editing the web.config or web.xml file incorrectly can lead to unexpected behavior. Before making any changes to these files, make a back up of them.

### 6.1.1.3.1 To update web.config files for .NET InfoView

1. Locate `web.config` at the following location: `<drive>:\Program Files\Business Objects\BusinessObjects Enterprise 11.5\Web Content\Enterprise115\InfoView\web.config`
2. Open `web.config` in a text editor such as Notepad.

3. Search for the following text at the end of file:

```
<appSettings>
<add key="applications" value="com.businessobjects. encyclopedia.reportviewer.wrapper.In
foViewPanel, analyticwrapper"/>
```

4. When you find this text, add the following text below it:

```
<add key="webConnectorUrl" value="http://webservice:port/dswsbobje/services/session"></add>
```

Where *webservice* represents the name of your web service and *port* represents the port number that the web server communicates on.

5. Save the file.

This setting overrides the setting that is in Xcelsius 2008.

### 6.1.1.3.2 To update the web.xml file for Java InfoView

1. Locate `web.xml` at the following location:`C:\Program Files\Business Objects\<web server>\we bapps\businessobjects\enterprise115\desktoplaunch\WEB-INF\web.xml`.

   Where *<web server>* is the name of your web server.

2. Open `web.xml` in a text editor such as Notepad.

3. Search for the following text at the end of file:

```
<context-param>
<param-name>crystalXcelsius 2008.webconnectorurl</param-name>
```

4. When you find this text, add the following text below it:

```
<param-value>http://webservice:port/dswsbobje/services/session</param-value>
```

Where *webservice* is the name of your web service and *port* is the port number that the web server communicates on.

5. Save the file.

This setting overrides the setting that is in Xcelsius 2008.

## 6.1.1.4 Launching InfoView documents from models

Xcelsius models stored in InfoView can be configured to open reports or other documents that are also in InfoView. To do this, you must add the OpenDocument API (Application Programming Interface) to the URL that is used to call the document.

The OpenDocument API provides a standard method for opening documents and reports that have been published to SAP BusinessObjects Enterprise using a simple URL. OpenDocument allows you to specify, not only the report, but also report parameters so the report returns only the desired data.

You can enter the URL directly into the URL field of a URL Button component in the model or, to allow users to change the URL dynamically, configure the URL Button component to retrieve the URL from

a cell in the embedded spreadsheet. Then configure the Selector component to enter different URLs in that cell when the user makes a selection.

**Note:**

OpenDocument launches the report or document in a separate browser window.

**Tip:**

You can also use OpenDocument with primary models that are not in InfoView, if they have secondary files in InfoView. The user will be prompted for InfoView credentials prior to launching the document.

For more information about URL reporting using OpenDocument, see the *Viewing Reports and Documents using URLs* guide.

### URL syntax for openDocument in SAP BusinessObjects XIR2

```
http://<server>:<port>/businessobjects/enterprise115/<platformSpecific>?sDocName=<document
name>&sPath=<path>&sRepoType=corporate&sType=<document type>&<parameter1>&<paramter2>&...&<pa
rameterN>
```

Replace the variables as indicated in the following table:

| Variable | Replace with |
|---|---|
| `<server>` | The name of the machine that houses the SAP BusinessObjects Enterprise repository where the document is stored. |
| `<platformSpecific>` | Since there are two implementations of the openDocument function (for JSP and ASPX), the exact syntax of this parameter depends on your implementation:<br>• For Java deployments, use `openDocument.jsp`<br>• For .NET deployments, use `opendocument.aspx` |
| `<document type>` | The type of document you are opening. For example, use rpt for a Crystal report and wid for a Web Intelligence document. |
| `<path>` | When using the sPath parameter, replace `<path>` with the path to the document in the repository. Enclose each subfolder name in square brackets, and separate subfolder names with commas.<br>**Note:**<br>Replace any spaces with plus signs. |

| Variable | Replace with |
|---|---|
| *<document name>* | When using the sDocName parameter, replace *<document name>* with the name of the document in the repository.<br><br>**Note:**<br>Replace any spaces with plus signs. |

**Note:**

Do not add `[Public+Folders]` to the path; start with the name of the first subfolder within `Public Folders`.

```
Public Folders
    folder 1
      folder 1.1
          folder 1.1.1
```

If your document is in folder 1.1.1, you would set sPath to: `[folder+1],[folder+1.1],[folder+1.1.1]`.

Example: **Using Opendoc.jsp**

```
http://cdi5boe:8080/businessobjects/enterprise115/desktoplaunch/opendoc/openDocu
ment.jsp?sType=rpt&sRepoType=corporate&sPath=[folder],[subfolder1],[subfolder2]&sDocName=Re
portName&IsSpromptName1=promptValue1
```

**URL syntax for openDocument in SAP BusinessObjects XI3x**

```
http://<server>:<port>/OpenDocument/opendoc/<platformSpecific>?sIDType=CUID&sType=<document
type>&iDocID=<document ID>&<parameter1>&<parameter2>&...&<parameterN>
```

Replace the variables as indicated in the following table:

| Variable | Replace with |
|---|---|
| *<server>* | The name of the machine that houses the SAP BusinessObjects Enterprise repository where the document is stored. |
| *<port>* | |
| *<platformSpecific>* | Depending on your SAP BusinessObjects Enterprise deployment, use one of the following:<br>• For Java deployments, use `openDocument.jsp`<br>• For .NET deployments, use `opendocument.aspx` |

| Variable | Replace with |
|---|---|
| *<document ID>* | When using the iDocID parameter, replace *<document ID>* with the document CUID number of the document.<br><br>**Note:**<br>In InfoView XI3x when you view the document properties you can also see the document CUID.<br><br>The CUID is unique so there is no need to use sDocumentName or sPath when using a CUID.<br><br>When you migrate your document from one system to another the CUID stays the same, which is why it is best to use the CUID. |
| *<document type>* | The type of document you are opening. For example, enter rpt for a Crystal report and wid for a Web Intelligence document |
| *<parameters>* | |

Example: **Using iDocID to open a Crystal report by its document CUID**

```
http://olapserver1:8080/OpenDocument/opendoc/openDocument.jsp?sType=rpt&sIDType=CUID&iDocID=1234
```

## 6.1.1.5 Opening InfoView SWFs from Xcelsius models

Xcelsius models stored in InfoView can be configured to open SWF files that are also in InfoView. To do this, you must add the DocumentDownload function to the URL that is used to call the file. The DocumentDownload function provides a standard way of opening SWF files that have been published to SAP BusinessObjects Enterprise.

DocumentDownload opens the secondary SWF file within Xcelsius, for example in a Slide Show component, which is useful when creating a "nested" or "parent-child" model within InfoView.

**Note:**

- Logon credentials are not passed from the parent Xcelsius model file when calling a secondary SWF file. To send logon credentials from DocumentDownload, append CELogonToken to the URL.

**Tip:**

To obtain the document ID, navigate to the document in InfoView, move your mouse over the document name hyperlink, and look for the ID number in the browser's status bar. You can also obtain the document ID from the Central Management console.

**URL syntax for DocumentDownload in SAP BusinessObjects XIR2**

```
http://<server>:<port>/businessobjects/enterprise115/desktoplaunch/opendoc/documentDownload?<pa
rameter1>&<parameter2>&...&<parameterN>&CELogonToken=<token>
```

Replace the variables as indicated in the following table:

| Variable | Replace with |
|---|---|
| *<server:port>* | The name and port of the machine that houses the SAP BusinessObjects Enterprise repository where the document is stored. |
| *<platformSpecific>* | Since there are two implementations of the openDocument function (for JSP and ASPX), the exact syntax of this parameter depends on your implementation:<br>• For Java deployments, use `openDocument.jsp`<br>• For .NET deployments, use `opendocument.aspx` |
| *<document ID>* | When using the iDocID parameter, replace *<document ID>* with the document ID number of the document. |
| *<path>* | When using the sPath parameter, replace *<path>* with the path to the document in the repository. Enclose each subfolder name in brackets, and separate subfolder names with commas.<br>**Note:**<br>Replace any spaces with plus signs. |
| *<document name>* | When using the sDocName parameter, replace *<document name>* with the name of the document in the repository.<br>**Note:**<br>Replace any spaces with plus signs. |

**Note:**

Do not add `[Public+Folders]` to the path; start with the name of the first subfolder within `Public Folders`.

```
Public Folders
    folder 1
```

```
folder 1.1
    folder 1.1.1
```

If your document is in folder 1.1.1, you would set sPath to: `[folder+1],[folder+1.1],[folder+1.1.1]`.

Example: **DocumentDownload URL for SAP BusinessObjects XIR2**

```
http://cdi5boe:8080/ businessobjects/enterprise115/desktoplaunch/opendoc/documentDownload?iDo
cID=10348&sKind=Flash&CELogonToken=SERVER%408757Jxnge3URUJ8L4
```

The following table identifies each of the parameters used in the sample URL. Sections in bold need to be customized to the file. Parameters marked with an asterisk (*) are required with the documentDownload function :

| Protocol: | http://<br><br>(can be https://) |
|---|---|
| Server name: | cdi5boe: |
| Port: | 8080/ |
| Function: | businessobjects/enterprise115/desktoplaunch/opendoc/documentDownload? |
| Document ID*: | iDocID=10348&<br><br>**Note:**<br>iDocID is the ID or the CUID of the SWF file. |
| File Type*: | sKind=Flash&<br><br>**Note:**<br>sKind must be Flash. |
| LogonCredentials*: | CELogonToken=SERVER%408757JxmheURUJ8L4 |

**URL syntax for DocumentDownload in SAP BusinessObjects XI3x**

**Note:**
Additional parameters can be passed into the SWF file by adding FlashVar ranges to the URL, for example: "Range1=yyy&Range2=zzz&"

To pass the CELogonToken from the parent model to a child SWF, a Flash Variable connection must be added to the child model. Open the Data Manager, click Add, and select Flash Variables. In addition to the connection required for the CELogonToken, any additional parameters must have Flash Variable connections. Any additional parameters are converted to FlashVars by the Flash Player. For more information about configuring Flash Variable connections, see To configure Flash variable connections.

You can enter the URL directly into the URL field of a Slide Show component in the model or, to allow users to change the URL dynamically, configure the Slide Show component to retrieve the URL from a cell in the embedded spreadsheet. Then configure the Selector component using the Excel CONCATENATE function, to enter different URLs in that cell when the user makes a selection.

```
http://<server>:<port> /OpenDocument/opendoc/<platformSpecific>?sType=amw&sIDType=InfoObject&iDocID=<document ID>&sPath=<path>&sDocName=<document name>
```

Replace the variables as indicated in the following table:

| Variable | Replace with |
| --- | --- |
| *<server>* | The name of the machine that houses the SAP BusinessObjects Enterprise repository where the document is stored. |
| *<port>* | |
| *<platformSpecific>* | Depending on your SAP BusinessObjects Enterprise deployment, use one of the following:<br>• For Java deployments, use `openDocument.jsp`<br>• For .NET deployments, use `opendocument.aspx` |
| *<document ID>* | When using the iDocID parameter, replace *<document ID>* with the document ID number of the document.<br><br>**Note:**<br>You can use the sDocName (document name) parameter as an alternative to the iDocID. |
| *<path>* | When using the sPath parameter, replace *<path>* with the path to the document in the repository. Enclose each subfolder name in brackets, and separate subfolder names with commas.<br><br>**Note:**<br>Replace any spaces with plus signs. |
| *<document name>* | When using the sDocName parameter, replace *<document name>* with the name of the document in the repository.<br><br>**Note:**<br>Replace any spaces with plus signs. |

**Note:**

Do not add [Public+Folders] to the path; start with the name of the first subfolder within Public Folders.

```
Public Folders
    folder 1
      folder 1.1
          folder 1.1.1
```

If your document is in folder 1.1.1, you would set sPath to: [folder+1],[folder+1.1],[folder+1.1.1].

## 6.1.2 Storing models in SAP BusinessObjects Enterprise systems

You can store and manage Xcelsius XLF and SWF files on SAP BusinessObjects Enterprise or Crystal Reports Server.

Once the files are added to the Enterprise system, any user with appropriate permissions can access the files. You can manage files saved to the Enterprise system through InfoView and the Central Management Console (CMC).

In InfoView, you can:

*   View a list of your XLF and SWF files.

*   Search for specific files.

*   Move or copy files to different folders.

*   View and refresh SWF files in InfoView.

If you have administrative rights on the Enterprise system, you can also modify the edit and view rights for XLF and SWF files within the Central Management Console (CMC).

**Note:**

You cannot view XLF files in InfoView. To view XLF files that have been added to the Enterprise system, you must open the XLF file within Xcelsius. For more information, see To open XLF files from Enterprise folders.

In Crystal Reports 2008, you can also embed an Xcelsius SWF file in a Crystal report and have the SWF use data from that report. To set up the SWF to use source data from a Crystal report, add a Crystal Reports Data Consumer connection to the model. For more information about configuring this data connection, see To configure Crystal Reports Data Consumer connections.

When you export the model as an SWF file, you can embed the SWF into the Crystal Reports source data file. For more information about working with Crystal Reports, see the *Crystal Reports 2008 User Guide*.

## 6.1.2.1 To save Xcelsius files to Enterprise folders

1. Click File > Save to Platform.

   The "Log On to BusinessObjects Enterprise" dialog box opens.

2. On the "Log On to BusinessObjects Enterprise" dialog box, enter the following information:

| Option | Description |
|---|---|
| System | Type the name of the Central Management console (CMC) where you want to save the XLF file.<br><br>The CMC stores information about the objects saved to the Enterprise system. For more information about the CMC, refer to the SAP BusinessObjects Enterprise or Crystal Reports Server documentation available n the SAP Help Portal (help.sap.com). |
| User name | Type your logon name. |
| Password | Type you password. |
| Authentication | Click the appropriate authentication type.<br><br>**Note:**<br>If you are unsure of your logon information, contact your system administrator. |

3. Click OK.
4. Select the folder where you want to save the XLF file, enter a file name, and click Save.

   **Tip:**
   To add a folder to the CMC, click New Folder.

## 6.1.2.2 To open XLF files from Enterprise folders

1. Click File > Open from Enterprise.
2. On the "Log On to BusinessObjects Enterprise" dialog box, enter the following information:

| Option | Description |
| --- | --- |
| System | Type the name of the Central Management console (CMC) where you want to save the XLF file. |
| | The CMC stores information about the objects saved to the Enterprise system. For more information about the CMC, refer to the SAP BusinessObjects Enterprise or Crystal Reports Server documentation available on the SAP Help Portal (help.sap.com). |
| User name | Type your logon name. |
| Password | Type you password. |
| Authentication | Click the appropriate authentication type. |
| | **Note:** If you are unsure of your logon information, contact your system administrator. |

3. Click OK.

4. In the "Open" dialog box, select the folder that contains the file you want to open. Click Open.

The XLF file opens in Xcelsius.

## 6.1.2.3 To export models to Enterprise folders

A model has been created and is open on the canvas.

1. Click File > Export > BusinessObjects Platform.

    The "Log On to BusinessObjects Enterprise" dialog box appears.

2. On the "Log On to BusinessObjects Enterprise" dialog box, enter the following information:

| Option | Description |
|--------|-------------|
| System | Type the name of the Central Management console (CMC) where you want to save the XLF file. |
| | The CMC stores information about the objects saved to the Enterprise system. For more information about the CMC, refer to the SAP BusinessObjects Enterprise or Crystal Reports Server  documentation available on the SAP Help Portal (help.sap.com). |
| User name | Type your logon name. |
| Password | Type you password. |
| Authentication | Click the appropriate authentication type. |
| | **Note:** |
| | If you are unsure of your logon information, contact your system administrator. |

3. Click OK.
4. In the "Save As" dialog box, select the folder that you want to export the SWF file to, enter a file name, and click Save.

The model is exported to the Enterprise repository as an SWF file.

## 6.2 Integrating with SAP NetWeaver BW

In SAP BusinessObjects Xcelsius Enterprise, you can use Business Explorer (BEx) queries or query views as data sources for Xcelsius models. You can add one or more data connections to SAP NetWeaver BW, configure the connection and link it to components, and then publish your model on the SAP NetWeaver BW system as BW Objects (TLOGO objects). Published Flash models can be assigned to NetWeaver Enterprise Portal roles and accessed through an iView. These models support lifecycle through Data Warehousing transport of BW Objects.

The SAP NetWeaver BW connection returns a snapshot of the BEx query pivot result set, as well as the keys and value helps for the characteristics and variables in one request.

**Note:**

• Business Data Warehouse level authorization applies.
• To run BEx queries, Xcelsius requires the BEx Web run-time environment, which is not available when previewing models in Xcelsius or when models are deployed in desktop applications like Microsoft PowerPoint or Adobe PDF. If you include SAP NetWeaver BW connections in your Xcelsius model, you can preview them through the NetWeaver portal launch URL command.

In addition, the connection provides metadata, such as the query and InfoProvider names, query filters, key date, refresh date, hierarchies, and the current message log.

## 6.2.1 Before connecting to SAP NetWeaver BW systems

Before connecting to SAP NetWeaver BW, you must install SAP NetWeaver BW 7.0 Enhancement Pack 1 Service Pack 5 on the same machine as SAP BusinessObjects Xcelsius. Xcelsius requires both Java and ABAP to connect to NetWeaver SAP Ehp1 SP5 for SAP NetWeaver 7.0. You must also set up user mapping to configure Single Sign-On (SSO) between the NetWeaver Java Application Server and the NetWeaver ABAP system. For more information, see the SAP NetWeaver BW documentation available at help.sap.com.

**Note:**
To allow Xcelsius to retrieve data, the SAP NetWeaver Business Warehouse and BEx queries must be available.

**Related Topics**
• To connect to SAP NetWeaver BW systems
• To connect to SAP NetWeaver BW systems
• To configure SAP NetWeaver BW connections
• To disconnect from the SAP NetWeaver BW system
• To publish Xcelsius models to SAP NetWeaver BW systems
• To preview Xcelsius models with SAP NetWeaver BW data
• To open XLF files from SAP NetWeaver BW servers
• Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.2 To connect to SAP NetWeaver BW systems

SAP NetWeaver BW 7.0 Enhancement Pack 1 Service Pack 5, BW and BW Java are installed on your machine.

When you enter a command that requires a connection to the SAP NetWeaver BW system, Xcelsius attempts to connect to the system automatically. If authorization is required, you are prompted to log onto the SAP NetWeaver BW system. The following actions require a connection to the SAP NetWeaver BW system:

• Click SAP  > Open
• Click SAP  > Publish
• Click SAP  > Publish As
• Click Data > Connections and add and configure an SAP NetWeaver BW connection

**Note:**

If Single Sign-On has been set up between SAP NetWeaver Java AS and SAP NetWeaver ABAP, you are prompted for authorization only once by Xcelsius.

**Related Topics**

• Before connecting to SAP NetWeaver BW systems
• To configure SAP NetWeaver BW connections
• To disconnect from the SAP NetWeaver BW system
• To publish Xcelsius models to SAP NetWeaver BW systems
• To preview Xcelsius models with SAP NetWeaver BW data
• To open XLF files from SAP NetWeaver BW servers
• Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.3 To disconnect from the SAP NetWeaver BW system

You are connected to an SAP NetWeaver BW system.

If you are connected to an SAP NetWeaver BW system, you can connect and publish to that system. If you want to connect or publish to a different SAP NetWeaver BW system, you must first disconnect from the current SAP system.

1. Click SAP > Disconnect.
2. Click OK.

The connection with the SAP NetWeaver BW system ends. You can now connect to a different SAP system or change the user authentication.

**Related Topics**

• Before connecting to SAP NetWeaver BW systems
• To configure SAP NetWeaver BW connections
• To connect to SAP NetWeaver BW systems
• To publish Xcelsius models to SAP NetWeaver BW systems
• To preview Xcelsius models with SAP NetWeaver BW data
• To open XLF files from SAP NetWeaver BW servers
• Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.4 To configure SAP NetWeaver BW connections

SAP NetWeaver BW 7.0 Enhancement Pack 1 Service Pack 5 is installed on your local machine and the model you want to add the connection to has been designed and is open on the canvas.

Use the SAP NetWeaver BW connection to create a connection to the Business Warehouse data.

**Note:**

In addition to the items you configure and preview when you set up an SAP NetWeaver BW connection, the returned result set will include at least two rows of data that provide more details about the results. For example, these rows contain the labels, as well as information about the unit and scaling of the keyfigure. The result set also includes a row representing the Overall Result. If you don't want the result set to include the Overall Result row, in the BW query add the option Result Rows to the option Always Suppress for each characteristic.

1. Click Data  > Connections.

    The "Data Manager" dialog box opens.

2. On the "Data Manager" dialog box, click Add and select SAP NetWeaver BW Connection.

3. On the Definition tab, set the following options:

| Option | Description |
|---|---|
| Name | A name for the connection. |
| System | The name of the SAP system you are currently connected to.<br><br>**Note:**<br>You can connect different components in a model to different queries or query views, but all queries and query views must be on the same SAP system. |
| Query | The name of the query or query view that is currently selected. Click Browse to select a different query or query view on the connected SAP system. |
| Return Data As | From the list, selected one of the following options to set the format for retrieved data:<br><br>• Raw — data is not formatted. This option is best for use in charts or with Excel calculations.<br>• Formatted — data uses the BEx format and includes information such as sealing factor, number of decimals, currency, and sign change. This option is best for use with text-based components, such as Label, Spreadsheet, Table, Scorecard, and so on. |
| Input Values | Lists the input-enabled values and selectable characteristics that are available to customize the data returned from the query or query view.<br><br><table><tr><th>Input</th><th>Description</th></tr><tr><td>Filters</td><td>Lists the characteristics and key figures included in the query and that are available to filter the data returned from the query or query view. Use filters to allow model users to navigate into slices of the overall dataset.</td></tr><tr><td>Variables</td><td>Set the values for mandatory and optional query variables.<br><br>**Note:** Mandatory variables are initialized before the Flash file loads are displayed through standard BEx dialogs.</td></tr></table><br>To set a value for each input, select the input object from this list and then in the Read From box, type a value or click the Cell Selector icon (  ) to select a cell from the embedded spreadsheet where the selected object will retrieve its value. |
| Output Values | |

| Option | Description |
|---|---|
| | Lists the values returned by the query or query view, as well as any filters that can be applied to the data after it is returned. |

| Output | Description |
|---|---|
| Cross-tab data | Returns a snapshot of the query or query view pivot table. The Header rows contain information about unit and currency, as well as the scaling factor. Basic, restricted, and calculated key figures are available cross-tab data. Cross-tab data reflects the Characteristics Value Display settings, such as Result Rows or Sort Characteristics. |
| Characteristics | Returns characteristics and structures the value help text and keys for the filters applied in the Input Values box, and the hierarchy information.<br><br>Each characteristic includes the following items:<br>• Label – Represents the description of the characteristic.<br>• Display String – Represents the technical name for the characteristic.<br>• Input String – Shows the current filter selection for the characteristic.<br>• Members Value Help – The options available under this category depend on the InfoObject. They represent the options for the characteristic's descriptions and all the available display attributes. You can use this options to create a list box to allow users to select values. |
| Variables | Returns the variable help texts and keys, as well as the applied filters. |
| Static Filters | Returns any restrictions defined in the BEx query designer. These restrictions cannot be changed within Xcelsius. |
| Information | Returns general query text elements, such as name, last refresh and data update, and key date value.<br><br>**Note:**<br>Key date value cannot be set through the Xcelsius BEx query connection. |
| Message | Returns error text messages from the SAP NetWeaver BW system. |

To set a location to store each output value, select the output object from this list and then, in the Insert In box, click the Cell Selector icon  to select a cell from the embedded spreadsheet to store the values retrieved from the query or query view.

| Option | Description |
|--------|-------------|
|  | **Note:**<br>By default, Xcelsius allows up to 512 rows to be retrieved and inserted into the embedded spreadsheet. To increase the number of rows allowed, see To set preferences for the embedded spreadsheet . |

4. Click the Data Preview tab.

5. Click Refresh Data Preview.

   The sample data is generated and displayed to show the data structure.

   **Note:**

   The data preview does not retrieve data from the BEx query, and filters and parameters set on the Definition tab are not applied.

6. View and adjust the data structure as desired using the following options:

| Option | Description |
|--------|-------------|
| Tree view in left panel | Expand the tree to show the Columns, Rows, and Free Characteristics. By default, they are set as they were defined in the BEx query designer. |
| Up and Down buttons | To change the order of the data, select an item in the tree and click the Up or Down buttons to move the item up or down one position within the list. After changing the order of items, click the Refresh Data Preview button to see the changes. |
| Move Item menu | To move items to different structure element, drag the item to the new location or select the item and click the Move Item menu icon ( ), then click one of the following options:<br>• Move to Columns -- moves the data to a column structure.<br>• Move to Rows -- move the data to a row structure.<br>• Move to Free Characteristics -- moves the data to a free characteristic structure.<br>• Reset Query Defaults -- sets the structure back to how it was defined in the query.<br>After changing the order of items, click the Refresh Data Preview button to see the changes. |

7. Click the Usage tab to set the refresh and message options.

   **Caution:**

   The Refresh Before Components are Loaded option executes the query for the first time before any input value filters can be specified by the user. To avoid retrieving large amounts of data, check the Use Default Query Data option to use the BEx query default values.

   For more information about setting refresh and message options, see To set refresh optionsand To create load and idle messages.

Once your model is configured and connected to the SAP NetWeaver BW system, you can publish it to the SAP system.

**Related Topics**

• Before connecting to SAP NetWeaver BW systems
• To connect to SAP NetWeaver BW systems
• To disconnect from the SAP NetWeaver BW system
• To publish Xcelsius models to SAP NetWeaver BW systems
• To preview Xcelsius models with SAP NetWeaver BW data
• To open XLF files from SAP NetWeaver BW servers
• Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.5 To publish Xcelsius models to SAP NetWeaver BW systems

SAP NetWeaver BW 7.0 Enhancement Pack 1 Service Pack 5 is installed on the same machine as Xcelsius, you are connected to the SAP NetWeaver BW system, and the model you want to publish has one or more SAP NetWeaver BW connections and is open on the canvas.

Use this option to generate a SWF and publish the Xcelsius model to the SAP NetWeaver BW system. Publishing a model allows it to be transported and translated like other BEx Objects. When a model is published, Xcelsius publishes three files: the XLF, an SWF, and a TXT file. The TXT file is required for translation on the SAP NetWeaver BW system.

**Note:**
You must publish the Xcelsius model on the same SAP system that the SAP NetWeaver BW Query connections connect to.

1. Do one of the following:
   • To save a new model, click SAP > Publish.
   • To save an existing model with a different name or location, click SAP > Publish As.

2. If you are not connected to the SAP system, the "SAP Logon" dialog box opens. Select the appropriate SAP system and enter your credentials. Click OK.

   **Note:**
   If you are connected to a different SAP system than you want to publish to, you must disconnect from the SAP network before continuing these steps.

   The "Open" dialog box opens.

3. Navigate to the location you want to save the file and enter a filename. Click OK.

The SWF file is published to the SAP NetWeaver ABAP system.

**Related Topics**

• Before connecting to SAP NetWeaver BW systems

- To configure SAP NetWeaver BW connections
- To connect to SAP NetWeaver BW systems
- To disconnect from the SAP NetWeaver BW system
- To preview Xcelsius models with SAP NetWeaver BW data
- To open XLF files from SAP NetWeaver BW servers
- Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.6 To preview Xcelsius models with SAP NetWeaver BW data

An Xcelsius model with an SAP NetWeaver BW connection has been published to an SAP system.

Use this procedure when you want to preview a model with data from the connected SAP system. When you use the Preview button, you can see the model configuration and test basic workflow, but the data from the SAP NetWeaver BW queries and query view result sets are not available.

1. Click SAP > Launch.

   A web browser session opens with the SAP NetWeaver Portal Logon screen.

2. Enter your portal credentials and click Login.

Once you are logged in, the Xcelsius model loads inside a dashboard BW template, which contains a single model. You can use this URL in an iView template to add the model to a SAP NetWeaver Portal role.

**Related Topics**

- Before connecting to SAP NetWeaver BW systems
- To configure SAP NetWeaver BW connections
- To connect to SAP NetWeaver BW systems
- To disconnect from the SAP NetWeaver BW system
- To publish Xcelsius models to SAP NetWeaver BW systems
- To open XLF files from SAP NetWeaver BW servers
- Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.7 To open XLF files from SAP NetWeaver BW servers

SAP NetWeaver BW 7.0 Enhancement Pack 1 Service Pack 5 is installed on the same machine as Xcelsius, you are connected to the SAP NetWeaver BW system, and the model you want to open has been published to the SAP NetWeaver BW server.

1. Click SAP > Open.

2. The "SAP Logon" dialog box opens. Select the appropriate SAP system and enter your credentials. Click OK.

   The "Open" dialog box opens.

3. Select the model XLF file that you want to open. OK.

**Related Topics**

- Before connecting to SAP NetWeaver BW systems
- To configure SAP NetWeaver BW connections
- To connect to SAP NetWeaver BW systems
- To disconnect from the SAP NetWeaver BW system
- To publish Xcelsius models to SAP NetWeaver BW systems
- To preview Xcelsius models with SAP NetWeaver BW data
- Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

## 6.2.8 Translating and globalizing Xcelsius models on SAP NetWeaver BW systems

When you save a model to an SAP system, you can enable translation settings so text in the model can be translated as BW Objects. When text is translated, the string length may change, which could affect the layout and design of the model. For example, a model designed in English might contain a label for "Sales", which is five characters. When translated into German, the label would be "Verkaufe", which is eight characters. These additional three characters might affect the layout of the label and fields around it. You can limit this impact when you set up translation by setting a limit for the number of characters in each string.

Xcelsius Enterprise also displays numeric, currency, data, and time values in a format specific to the location set based on the SAP NetWeaver BW user locale. The following Excel-formatted elements can also be changed dynamically based on your SAP profile locale when running the SWF file:

| Element | Example |
|---|---|
| Long Month | January, February, March |
| Short Month | Jan, Feb, Mar |
| Long Day | Sunday, Monday, Tuesday |
| Short Day | Sun, Mon, Tue |
| Date Separator | "/" as in 01/01/1900 |
| Time Separator | ":" as in 12:00:00 |

| Element | Example |
|---|---|
| Decimal Separator | "." as in 1.5 |
| Thousands Separator | "," as in 1,000,000 |
| Currency Symbol | £100, 50¢, 10F50 |

The following restrictions apply to Xcelsius Enterprise globalization settings:

- The order that value elements appear are not changed at runtime, even if the location setting where the model runs uses a different element order. For example, if the model is created in an operating system where the location settings use the date format MM/DD/YYYY. When the model is run in an environment that uses the date format, DD/MM/YYYY, the order of the month and day are not updated for the new location. This restriction also applies to whether currency symbols are at the front or the end of the value.
- Only values that are in the embedded spreadsheet are globalized. If values are manually entered into the "Properties" panel or into the SWF at runtime, those values are not changed according to the location setting when the model runs.
- When designing and editing models, changing location settings does not affect existing, bound components. If you change the location setting and want the change to apply to existing components, you must rebind the components to the embedded spreadsheet.
- If a region-specific format is applied to cells in the embedded spreadsheet, the format for those cells does not change when the model is run in a different location. For example, in Microsoft Excel, when you apply the Currency format, you can choose None, a plain symbol, or symbols associated with a specific region. If you select the plain symbol, for example €, the symbol changes depending on the location setting when the model runs. But, if you choose a symbol for a specific region, for example € French (France), the symbol does not change when the model is run in a different location.

**Related Topics**
- Before connecting to SAP NetWeaver BW systems
- To configure SAP NetWeaver BW connections
- To connect to SAP NetWeaver BW systems
- To disconnect from the SAP NetWeaver BW system
- To publish Xcelsius models to SAP NetWeaver BW systems
- To preview Xcelsius models with SAP NetWeaver BW data
- To open XLF files from SAP NetWeaver BW servers

### 6.2.8.1 To set up translation for Xcelsius models on SAP NetWeaver BW systems

A model has a SAP NetWeaver BW connection, is open on the canvas, and is meant to be published to the SAP NetWeaver BW system.

You can set up static text for translation so translated text displays when the Flash model is viewed. To allow translation, you must designate the cells in the spreadsheet that can be translated. When the model is published, the content in the specified cells is available to SAP NetWeaver BW. Once translation is set up, translated text, based on the SAP NetWeaver BW user locale, is passed to the Xcelsius model at run-time. For more information about the translation options, see the SAP NetWeaver BW documentation located at help.sap.com.

**Note:**
Text translation is not available from Xcelsius.

1. Click SAP > Translation Settings.
2. If you are not connected to the SAP system, the "SAP Logon" dialog box opens. Select the appropriate SAP system and enter your credentials. Click OK.

    **Note:**
    If you are connected to a different SAP system than you want to publish to, you must disconnect from the SAP network before continuing these steps.

3. In the "Translation Settings" dialog box, select the Enable Support for Translation option.
4. Below the Ranges list, click Add.
5. In the Name box, type a name for the range.
6. Beside the Range box, click the "Cell Selector" icon ( ) and select a cell.
7. To translate multiple texts, Repeat steps 4 to 6 .
8. To minimize the impact of translated words on the model design and spacing, do one of the following:

    **Note:**
    This setting is not supported in SAP NetWeaver 7.0 Enhancement package 01 SP 05. However, it is a good practice to set this option for models, so they will work correctly once the option is supported by SAP Netweaver and you won't need to republish them.

    • To enter specific values, beside the Maximum Number of Characters box, click the "Manual Edit" icon ( ) and, on the Number of Characters Settings dialog box, specify the maximum number of characters allowed for each string.
    • To select values from the embedded spreadsheet, beside the Maximum Number of Characters box, click the Cell Selector icon ( ) and select the cells that will store the values for the maximum number of characters.

9. Click OK.

**Related Topics**

• To publish Xcelsius models to SAP NetWeaver BW systems

# Exporting and Deploying Models

## 7.1 Adobe Flash Player Security Restrictions

models generated by Xcelsius 2008 are based on Adobe Flash technology and are subject to its security protection rules.

The Adobe Flash Player 9 and later includes security restrictions that affect SWF files that call content files stored on a local drive. If you want to run an Xcelsius SWF file locally, you must add the file to the trusted locations in Adobe Flash Player Settings Manager.

Adobe Flash Player also restricts access to external data sources. If your SWF is hosted on a web server, any web server that your SWF file connects to for live data must have a cross domain policy file in the web server root.

For more information about Adobe Flash Player security, see the following documents on the Adobe website.

**Note:**

Flash Player documentation is version specific and does not address previous versions. Users with Adobe Flash Player 9 will need to read both documents.

- Security changes in Flash Player 8
- Policy file changes in Flash Player 9 and Flash Player 10

## 7.1.1 Running Xcelsius SWF files locally

SWF files attempting to call content files (images, XML data, and so on), using a URL file reference, can deliver the content only when the local drive is listed as a trusted location in the Adobe Flash Player security settings. If you create a snapshot or export to a local format, such as PPT, HTML PDF, Word, or SWF, you may need to add the SWF file or the host application (PowerPoint, Microsoft Word, and so on) to the trusted locations. Users need to add the SWF or host application file to the Flash Player trusted locations if they want to open an Xcelsius SWF file in the following applications:

- A local HTML web page
- The standalone Flash Player
- A PDF (Acrobat 9 or later)
- A PowerPoint presentation

- A Microsoft Word document

### 7.1.1.1 To make a file trusted in Adobe Flash Player Settings Manager

If you want to run a model locally, you must add the file location to the trusted locations in the Adobe Flash Player Settings Manager.

1. To open the Adobe Flash Player Settings Manager, go to http://www.macromedia.com/support/documentation/en/flashplayer/help/settings_manager04.html
2. On the Adobe Flash Player Settings Manager page, in the "Table of Contents", click Global Security Panel Settings.
3. Select the Always Allow option.
4. In the Always trust files in these locations list, select Add location.
5. Browse to the location of the SWF file (or container file such as PowerPoint, HTML, and so on).

## 7.1.2 Running Xcelsius SWF files from a web server

If your model is hosted on a web server, any web server that the SWF file connects to for live data must have a cross-domain policy file in the web server root (differs for each web server). Without a cross domain policy file, the SWF file may not be able to connect to the web server to retrieve data.

The Adobe Flash Player security restrictions do not allow a SWF file to access data that resides outside the web domain from which the SWF originated. If a SWF file attempts to connect to an external data source, Flash Player may display a variety of messages. The most common message is `Unable to Load URL: http://boe-server:8080/dswsbobje/services/session`.

A cross-domain policy file is a simple XML file that gives the Adobe Flash Player permission to access data in a given domain without displaying a security dialog box. The cross domain policy file on your web server controls which SWF files, running on which domains, can access your web server. When placed in a root folder of a server, it tells the Flash Player to allow direct access to data on that server, without prompting the user to grant access.

### 7.1.2.1 To create a cross-domain policy file

Adobe Flash Player security restrictions prevent SWF files from accessing data across domains unless a cross-domain policy file gives permission. If you plan to deploy your model on a web server and want it to access external data sources, you must create a cross-domain policy file and place it in the root folder of all the servers the file needs to access.

For more information about cross-domain policy files, see the Adobe website.

1. Download or create a `crossdomain.xml` file.

   For example, the following cross-domain policy file allows any SWF, running on any domain, to access the web server.

   ```
   <?xml version="1.0"?>
   <!DOCTYPE cross-domain-policy SYSTEM
       "http://www.macromedia.com/xml/dtds/cross-domain-policy.dtd ">
   <cross-domain-policy>
   <allow-http-request-headers-from domain="*" headers="*" secure="false" />
   <allow-access-from domain="*" secure="false" />
   </cross-domain-policy>
   ```

2. Place the cross-domain policy file in the root folder of all the servers the model need to access.

   For example, to allow access between different BusinessObjects Enterprise servers, you would need to place the cross-domain policy file in the associated Tomcat folders on each server, that is, Location: `C:\Program Files\Business Objects\Tomcat\webapps\ROOT`

## 7.1.3 FSCommand restrictions

The fscommand() function lets a SWF file communicate with a script in a web page. However, the allowScriptAccess setting in the browser controls access to scripts for the web page. If the allowScriptAccess setting is set to "always", a SWF file can always access web page scripts. If it is set to "sameDomain", the SWF file can only access scripts that are in the same domain as the web page. In Adobe Flash Player 7 and earlier, if the allowScriptAccess attribute is not specified for an HTML page, it is set by default to "always", but, in Flash Player 8 or later, the attribute is set to "sameDomain" by default.

Some uses of Adobe's `FSCommand` action are not supported in the Adobe Flash Player 9. Although `FSCommand` can not be used to pass commands to the Flash Player directly, it can be used communicate with the program hosting the player or pass messages to Macromedia Director, Visual Basic, Visual C++, and other programs that can host ActiveX controls.

The six predefined `FSCommand` commands that are used to manipulate SWF files within the Flash Player do not currently function. This is a known issue to be resolved by Adobe. Xcelsius 2008 supports the use of the `FSCommand` action to pass commands and parameters to a scripting language, such as JavaScript, in a Web browser.

`FSCommand` can also be used to send messages to Macromedia Director or Visual Basic events to programs that can host ActiveX controls. These uses may be functional in Xcelsius 2008, however they are not officially supported.

For more information on this topic, please see the Adobe article at: http://www.adobe.com/support/flash/action_scripts/actionscript_dictionary/actionscript_dictionary372.html.

# 7.1.4 Flash Player Error Numbers and Messages

Once you export your model, it is saved as a SWF file and is subject to Adobe Flash Player policies and restrictions. If the Flash Player encounters a problem when running the model, it may display an error message or number. Flash Player generates these messages.

For more information about specific Adobe Flash Player error numbers and messages, see the Adobe web site.

# 7.2 Exporting models

Once your model is complete, you can export it to the following formats:
- Flash
- Adobe AIR
- HTML
- Business Objects Platform
- Adobe PDF
- PowerPoint Slide
- Microsoft Outlook
- Microsoft Word

For all formats, the model is saved as a Flash SWF file and then inserted into the selected program. As a SWF file, the model does not required Xcelsius to run.

**Note:**

The SWF file created by Xcelsius includes an item in the SWF context menu that appears when users right-click the open SWF file. The item identifies Xcelsius and links to an SAP website. The information that appears in this context menu is stored in the following text file: `....\Xcelsius\assets\RightClick.txt`. To change the information, modify the `RightClick.txt` file using the following format *<menuItemName><URL>* where *<menuItemName>* is the name of the item in the context menu (for example, About Xcelsius) and *<URL>* is the address for the website that opens when users click the menu item. Re-export the SWF to apply the changes.

# 7.2.1 To export models

You have created a model and it is open in your workspace. If you are exporting to Adobe AIR, the Adobe Flex 3.0 SDK is installed on your system. For more information, see To setup your system for Adobe AIR .

1. Click File > Export and then select one of the following options:

| Option | Description |
| --- | --- |
| Flash (SWF) | **Note:**<br>This option is not available in Xcelsius Present.<br><br>Generates an Adobe Flash (SWF) file that can be executed locally with the standalone Flash player, opened in a browser, used as part of a web site, or imported into a number of different programs.<br><br>**Caution:**<br>Any external files are saved in a folder in the folder where the model is saved. For the model to work properly, the external file folder must remain in the same folder as the model. |
| AIR | Exports the model to a browserless Runtime for Rich Internet Applications (RIAs) format that can be run on desktops across multiple operating systems. Before you can export to Adobe AIR, you must configure your system. For more information, see To setup your system for Adobe AIR .<br><br>**Note:**<br>To run AIR files, you must install the AIR player from the Adobe website. |
| HTML | **Note:**<br>This option is not available in Xcelsius Present.<br><br>Embeds the Adobe Flash SWF model in an HTML file to ensure users can view the model by opening one file even if their computer is not configured to open Flash files in the browser.<br><br>**Caution:**<br>When the model is exported, Xcelsius creates an HTML file and an SWF file with the same name and saves them in the selected directory. For the model to work properly, these files must be in the same folder. |
| Business Objects Platform | **Note:**<br>This option is available in Xcelsius Enterprise only<br><br>Exports the model to either BusinessObjects Enterprise or the Crystal Reports Server. |

| Option | Description |
| --- | --- |
| PDF | Generates a PDF file that can be viewed locally, opened in a browser, or deployed on a web site. The model is embedded in the PDF and is dynamic and interactive. <br><br>**Note:** <br> You can save your PDF files to be compatible with either Acrobat 6 (and later versions) or Acrobat 9. Acrobat 9 requires users to have the latest version of Acrobat Reader installed to view the model. In the "Save As" dialog box, in the Save as Type list, select the Acrobat version. <br><br>**Caution:** <br> Any external files are saved in a folder in the folder where the model is saved. For the model to work properly, the external file folder must remain in the same folder as the model. |
| PowerPoint Slide | Generates a PowerPoint (PPT) file and an SWF file with the same name. The model is on the first slide of the PowerPoint presentation. When the presentation runs, the model is dynamic and interactive. <br><br>**Caution:** <br> Any external files are saved in a folder in the folder where the model is saved. For the model to work properly, the external file folder must remain in the same folder as the model. |
| Outlook | Generates an SWF file and attaches it to a Microsoft Outlook message, which you can then customize and send. |
| Word | Generates a Microsoft Word document and embeds an SWF of your model in the document. The model is dynamic and interactive. <br><br>**Note:** <br> If, in Microsoft Word, the model is static, on the Microsoft Word Control toolbar, click the Exit Design Mode icon ( ![icon] ). |

2. Do one of the following:

| Option | Description |
|---|---|
| If you are exporting to Flash (SWF), HTML, PDF, PowerPoint Slide, or Word | Enter a name for the exported file and click Save. |
| If you are exporting to Outlook | Enter a message and click Send to send the message. |
| If you are exporting to Business Objects Platform | In the "Log On to BusinessObjects Enterprise" dialog box, enter the following logon information. (If you are unsure of your logon information, contact your system administrator.)<br><br>• In the System field, type the name of the Central Management Console (CMC) that you want to export the SWF file to.<br>• In the User name and Password fields, type your logon credentials.<br>• In the Authentication list, select the authentication type. |
| If you are exporting to AIR | |

| Option | Description |
|---|---|
| | a. Set the following options: |

| Option | Description |
|---|---|
| Name | Enter a name for the application. The name must be unique for each installation on the same system. This name will display on the installation screen. The default value is the current document name. |
| ID | Enter a unique ID to identify the application. The ID must be unique for each installation on the same system. The default value is "com.air.flash.*DOCUMENT_NAME*" . |
| Version | Enter a version number for the application. The default value is "1.0". |
| Copyright | Enter the copyright information, which will display on the installation screen when users install the application on a Macintosh system. |
| Window Style | Select a window style from the following options:<br>• System Chrome - the window adopts the style of windows in the environment where it is running.<br>• Custom Chrome (Opaque) - the window has its own unique look specific to AIR and has a solid background.<br>• Custom Chrome (Transparent) - If the canvas for the model is set to Transparent, when you use this setting the window has a transparent background. |
| Window Size: Use Custom Size | Select this option if you want to set a custom size for the window. The set the size values in the Width and Height boxes.<br><br>**Note:**<br>When a custom size is used, users cannot change the size of the window at run-time. |

| Option | Description | | |
|--------|-------------|---|---|
| | **Option** | **Description** | |
| | Application Icons (PNG only) | Select the image files you want to use for the application icons.<br>**Note:**<br>Adobe AIR only supports PNG files for application icon images. | |
| | Destination | Enter the location where Adobe will save the AIR Application Installer.<br>**Note:**<br>If you have trouble exporting your model, select Export with Temporary Certificate. | |
| | b.  Click Export | | |

## 7.2.2 To setup your system for Adobe AIR

If you want to export model content as an Adobe Integrated Runtime (AIR) desktop application, you must install the Adobe Flex 3.0 SDK.

1. Download the Adobe Flex 3.0 SDK from the Adobe website.
2. Extract the files in the zipped Adobe Flex SDK file to the following path: `C:\Program Files\Adobe\Flex Builder 3 Plug-in\sdks\3.0`

   **Note:**
   If you want to change the location for the SDK file, after you install Xcelsius, change the folder location in file *Xcelsius's Installation Path*`\Xcelsius\assets\air\sdkPath.dat` file.

3. Download and install the Java 2 Runtime Environment (J2RE 1.4 or higher).

To run the exported AIR file, you will need to download and install the AIR player from the Adobe website.

# More Information

| Information Resource | Location |
|---|---|
| SAP BusinessObjects product information | http://www.sap.com |
| SAP Help Portal | Select http://help.sap.com > SAP BusinessObjects.<br><br>You can access the most up-to-date documentation covering all SAP BusinessObjects products and their deployment at the SAP Help Portal. You can download PDF versions or installable HTML libraries.<br><br>Certain guides are stored on the SAP Service Marketplace and are not available from the SAP Help Portal. These guides are listed on the Help Portal accompanied by a link to the SAP Service Marketplace. Customers with a maintenance agreement have an authorized user ID to access this site. To obtain an ID, contact your customer support representative. |
| SAP Service Marketplace | http://service.sap.com/bosap-support > Documentation<br>• Installation guides: https://service.sap.com/bosap-instguides<br>• Release notes: http://service.sap.com/releasenotes<br><br>The SAP Service Marketplace stores certain installation guides, upgrade and migration guides, deployment guides, release notes and Supported Platforms documents. Customers with a maintenance agreement have an authorized user ID to access this site. Contact your customer support representative to obtain an ID. If you are redirected to the SAP Service Marketplace from the SAP Help Portal, use the menu in the navigation pane on the left to locate the category containing the documentation you want to access. |
| Developer resources | https://boc.sdn.sap.com/<br><br>https://www.sdn.sap.com/irj/sdn/businessobjects-sdklibrary |
| SAP BusinessObjects articles on the SAP Community Network | https://www.sdn.sap.com/irj/boc/businessobjects-articles<br><br>These articles were formerly known as technical papers. |

| Information Resource | Location |
|---|---|
| Notes | https://service.sap.com/notes<br><br>These notes were formerly known as Knowledge Base articles. |
| Forums on the SAP Community Network | https://www.sdn.sap.com/irj/scn/forums |
| Training | http://www.sap.com/services/education<br><br>From traditional classroom learning to targeted e-learning seminars, we can offer a training package to suit your learning needs and preferred learning style. |
| Online customer support | http://service.sap.com/bosap-support<br><br>The SAP Support Portal contains information about Customer Support programs and services. It also has links to a wide range of technical information and downloads. Customers with a maintenance agreement have an authorized user ID to access this site. To obtain an ID, contact your customer support representative. |
| Consulting | http://www.sap.com/services/bysubject/businessobjectsconsulting<br><br>Consultants can accompany you from the initial analysis stage to the delivery of your deployment project. Expertise is available in topics such as relational and multidimensional databases, connectivity, database design tools, and customized embedding technology. |

# Index