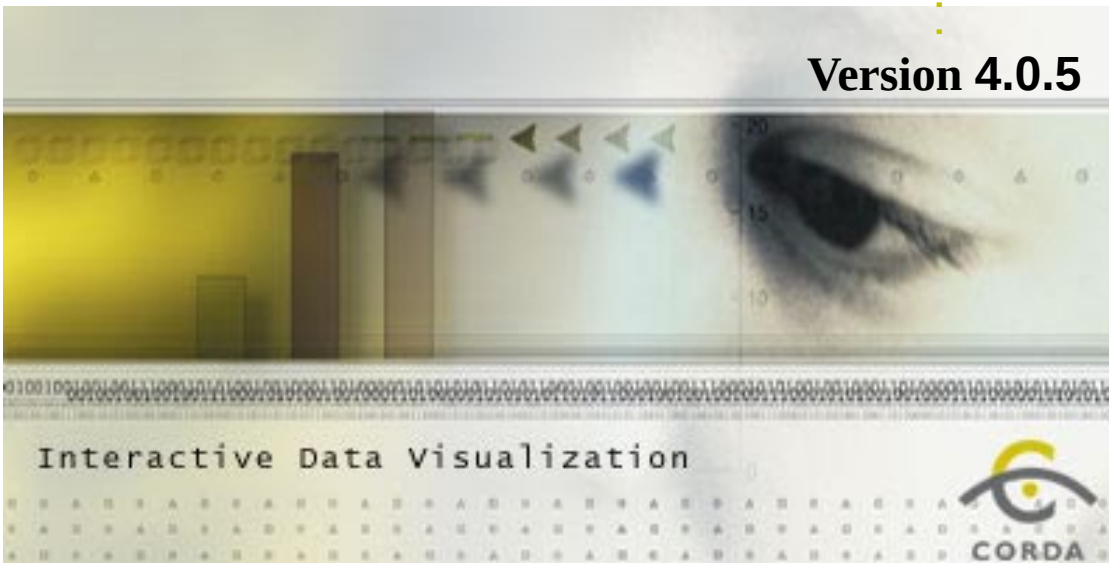
PopChart Builder User Guide

Version 4.0.5



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Creating Appearance Files

Welcome to the *PopChart Builder User Guide*. This manual will help you create appearance files with PopChart Builder.

If you are looking for something that will help you learn the basics of PopChart quickly, you may want to refer to the *PopChart Quick Start* manual. If you are looking for a reference on PopChart Server, PopChart XML, PCScript, or the PopChart Embedder APIs, you should refer to the *PopChart Server Reference* manual.

The material in this manual is very reference oriented. If, while you are in a PopChart Builder dialog, you have any questions about a certain option or feature, click on the Help button to find out more about that option or feature. You can also search for information on any given subject matter in the online help system or in the HTML version of the PopChart documentation.

Over the next few months, we will be updating this documentation to make it more of a User Guide. Please visit the Corda Technologies website (http://www.corda.com) regularly for the latest documents.

WHAT IS POPCHART?

In a world of ever increasing information, perhaps no skill is more valuable than the ability to convey that information in the most understandable and accessible format possible. Raw data is no exception to this rule, yet because understanding raw data often involves wading through spreadsheet after spreadsheet in search of key figures and trends, it is often the hardest type of information to convey.

For that reason, data visualization is paramount. Graphs and charts can convey in a few seconds information that is often not clear even after hours of analyzing numbers. Data visualization is what Corda Technologies is all about. With our easy-to-use PopChart tools, you can translate your data into state-of-the-art PopChart images—eye-catching, high-resolution, and interactive data-driven graphics, such as the ones on the next page.

A PopChart image can contain a variety of charts and graphs, fed with on-demand dynamic data. It can include explanatory text boxes, callout notes, or PopUp text that appears as a viewer rolls over certain parts of the graph. It can even include interactive drill-down effects, such as linking to another PopChart image as a user clicks on a certain data item, or executing your own custom JavaScript™ functions.

As you read through this documentation, you will learn all about how you can utilize PopChart technology to convey your information. And, if you haven't already, you will soon discover why PopChart is your all-purpose data visualization tool.

ABOUT PopChart Builder

PopChart Builder is a graphical design tool that helps you design appearance files (templates) for PopChart images generated by PopChart Server. It includes a friendly PopChart Wizard, which will guide you through the process of creating an appearance file.

ABOUT PopChart Server

PopChart Server does exactly what its name implies—that is, it serves images of charts and graphs. But these aren't just run-of-the-mill static charts and graphs. These are dynamic and interactive images generated by PopChart Server on the fly.

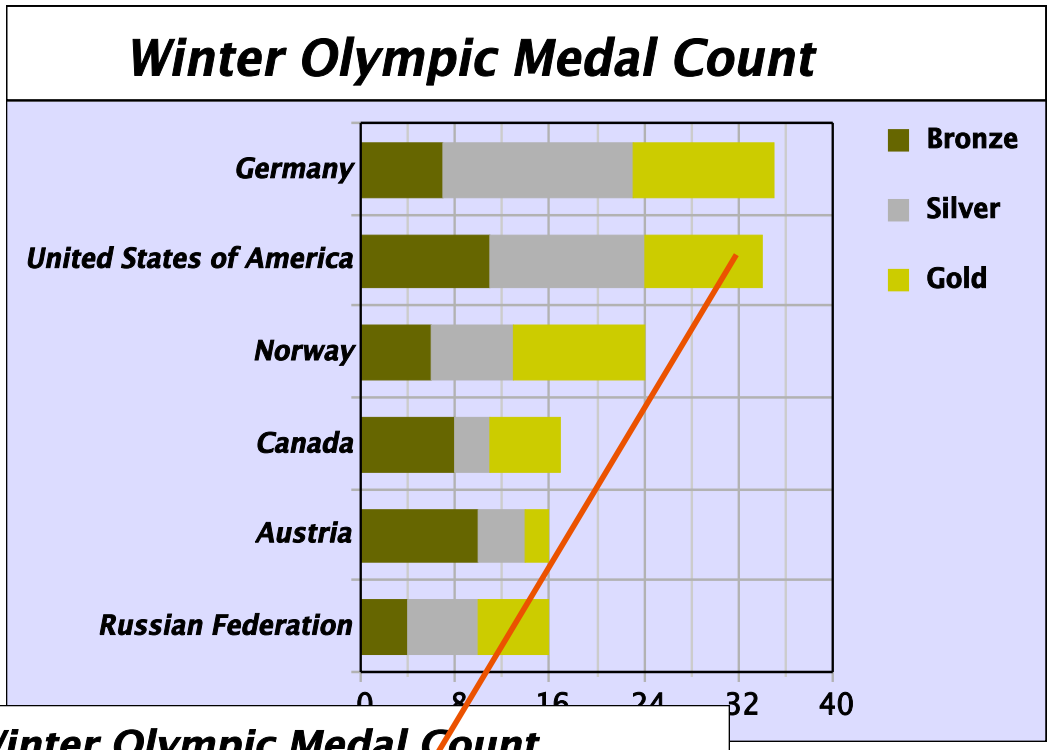
It works like this. You create an appearance file (kind of like a template for a graph) with PopChart Builder. Then, you send this appearance file to PopChart Server, along with data and formatting options, and PopChart Server returns a PopChart image—a graphical representation of your data, complete with PopUp text and the ability to drill-down to another graph that explains a data item in greater detail.

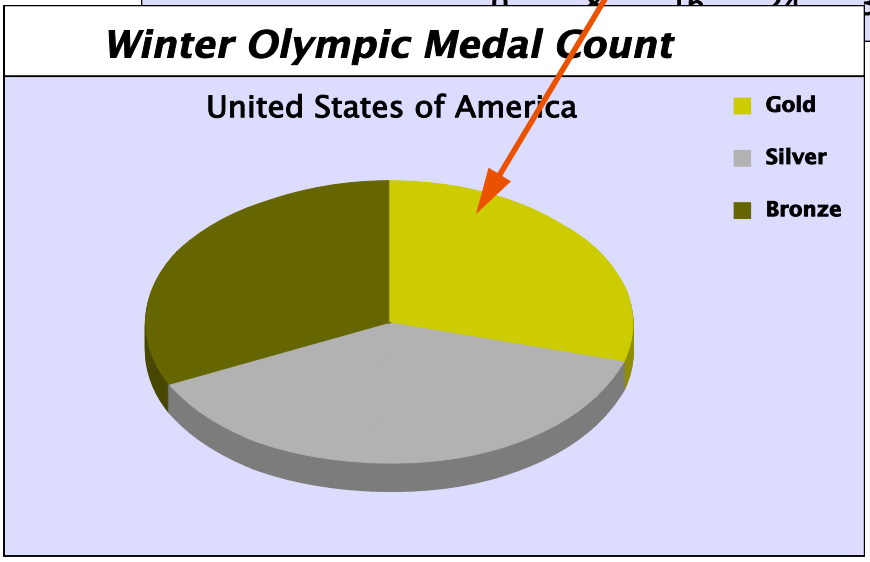
The image can be in one of many different types of formats, including Macromedia® FLASH™, SVG™, PNG, GIF, PDF, EPS, WBMP, and even d link descriptive text for the visually impaired. You can also interface natively with PopChart Server in a variety of

environments, from simple HTML to ColdFusion®; from Java™ Application Servers to Microsoft®'s .NET framework. PopChart Server can accept data from most database and

Over 20 different graph types, including Bars, Pies, Gauges, X-Y, Time, and Radar.

Data can be dynamic or static. PopChart also supports XML!





Data items drill-down to other web pages or PopCharts as the user clicks on them. Or you can execute a JavaScript function.

Crisp, colorful, 3D graphics in 7 different formats, including FLASH, GIF, SVG, and PDF.

data file formats. It even supports XML, making PopChart Server easy to integrate with your existing database system.

PopChart Server is the fastest, most robust, and most versatile data visualization and charting tool on the market today. Best of all, because PopChart Server is written in 100% Java, it can run on any platform. No matter what environment you operate in, you can take advantage of PopChart Server's patented DataFunnel™ technology to deploy the latest in state-of-the-art interactive data-driven graphics.

OTHER POPCHART TOOLS

In addition to PopChart Server, you may also be interested in the following PopChart tools:

POPCHART XPRESS

For those looking to publish static PopChart images from their desktop, there's PopChart Xpress, a program that can run on any operating system and is easy enough for even non-technical employess to use. You simply choose a graph type in the PopChart Wizard, copy data from a spreadsheet program such as Microsoft Excel, select a few formatting options, and PopChart Xpress generates everything you need to publish an image of your graph on the web.

PopChart Xpress can be downloaded for evaluation or purchased from the Corda Technologies website at http://www.corda.com.

INSTALLING AND RUNNING PopChart Builder

PopChart Builder is installed at the same time as PopChart Server.

To install PopChart Builder download the PopChart 4.0.5 installer from the Corda Technologies website (http://www.corda.com) and follow the directions outlined in Chapter 2, "Installation," of the *PopChart Server User Guide*.

When you reach the Choose Install Set screen, if you do not want to install PopChart Server, select Builder Only. Ignore any instructions that pertain only to PopChart Server.

When you are done installing PopChart Builder, you can run it by clicking on the PopChart Builder shortcut or by running the PopChartBuilder executable file in the bin folder of the Corda installation directory (users on UNIX® compatible systems may have to run `sh PopChartBuilder.bin` on the command prompt for the latter to work).

EVALUATING PopChart Builder

When you run the PopChart installer without entering a license key, the installer will automatically generate an evaluation key for you. This evaluation key will allow you to use PopChart Builder normally for 15 days, with the following restriction:

- The words *Builder: Evaluation Use Only* will appear on any images that are based on appearance files generated by an evaluation version of PopChart Builder.

After the evaluation period is over, or if you enter an invalid license key when installing PopChart Builder, PopChart Builder will run in a non-licensed mode. In this mode, PopChart Builder is fully functional except for the following restrictions:

- You cannot save or preview your appearance files.

To remove these restrictions, select File > PopChart License and enter a valid license key. You can purchase a license for PopChart Builder from Corda Technologies by visiting their website at http://www.corda.com, or by calling their sales department at (801)-805-9500.

ABOUT APPEARANCE FILES

Appearance files are one of the most important elements in PopChart images. They contain all of the information about what the graphs should look like—essentially providing PopChart Server with a template for the images it generates.

You can create appearance files in PopChart Builder, an easy to use designer for graph generation. You can create an appearance file from scratch, or you can customize one from a template using the PopChart Wizard.

There are also several example appearance files in the examples/apfiles folder of your document root.

Appearance files are saved in a format called PopChart XML (see Chapter 10). This is a text-based format that you can easily manipulate in a text editor. PopChart XML is also flexible enough to allow you to modify or create your appearance file on the fly.

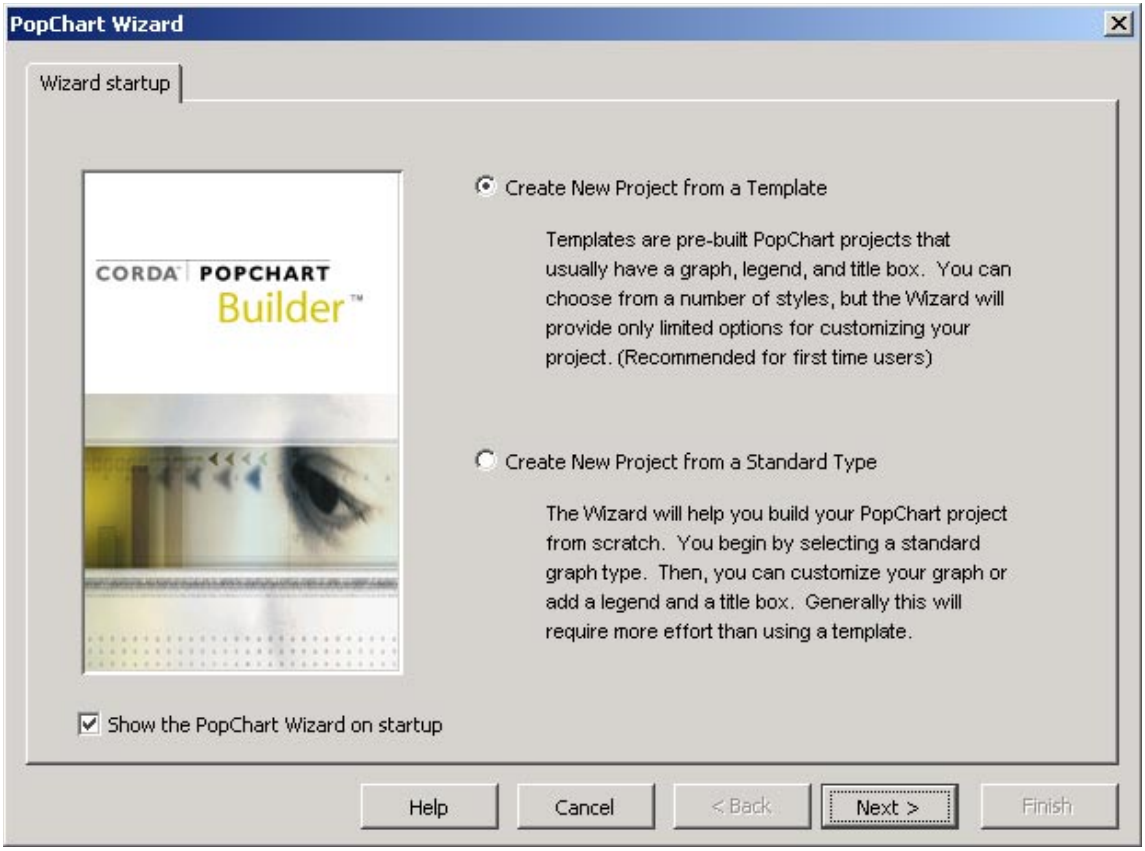
By default, PopChart Server expects to find its appearance files in its document root (chart_root). For organizational purposes, PopChart Builder saves these files in the apfiles subfolder of that directory. Appearance files have a .pcxml extension.

appearance files contain sample data to help you get a feel for what the graph will look like when it has real data in it. To make things simple for now, we will just use that sample data. In most cases, though, you will send live data to PopChart Server, which will be applied dynamically to the graphs in your appearance file. Although the data will change, PopChart Server will retain the layout and formatting options that you specified in your appearance file.

Because appearance files are merely templates for graphs, it is hard to know exactly how the resulting will graph will look when fed real data. For tips on creating an appearance file that will look good no matter what data is fed to it, you should refer to "Tips for Creating Good Appearance Files" on page 1-18.

CREATING A SIMPLE APPEARANCE FILE

Creating an appearance file is easy with PopChart Builder. When you first start PopChart Builder, the PopChart Wizard will begin. The Wizard will guide you through the steps of building a basic appearance file.



USING THE WIZARD

You can start the appearance file with a standard graph type, such as Bar, Pie, Line, or Stock, or you can select a pre-defined template to customize. After you select the graph type or template, you will be given the option of customizing some of the more common features, such as the title, the legend, and the color theme. When you are done customizing your appearance file in the Wizard, click Finish.

Note: *PopChart Builder allows you to preview your PopChart image in the three main image formats (FLASH, SVG, GIF/PNG) at any time in your default web browser. Just click on the preview button at the bottom of the Wizard. Outside of the Wizard, you can preview your PopChart image by clicking on the Preview*  *toolbar button or select File > Preview.*

CUSTOMIZING YOUR APPEARANCE FILE

When you click finish the PopChart Wizard, you will be brought to the main PopChart Builder designer. In this designer, you can further customize your appearance file.

By clicking on the buttons at the top of the window, you can add more objects to your graph, including graphs, images, text boxes, and legends.

By double-clicking on any object (or selecting options from the Properties pull-down menu), you can bring up dialogs that allow you to control more advanced features that aren't available in the PopChart Wizard.

While in the dialogs, if you have any questions about what a certain option or feature does, click on the help button. This will bring you to the PopChart Builder online help reference, which will answer all of your questions about appearance file features and options.

SAVING YOUR APPEARANCE FILE

When you are done customizing your appearance file, you can save your appearance file by selecting File > Save. Your appearance file will be saved in the chart_root/apfiles folder of your PopChart installation.

You can access this folder later by selecting the Builder Projects shortcut, which is in your Start Menu on Microsoft Windows®. If you want to make changes to your appearance file, simply double-click on it and it will open in PopChart Builder.

Note: *If double-clicking does not open your appearance file, start PopChart Builder, select File > Open, and locate the file you want to edit.*

TESTING THE APPEARANCE FILE WITH THE EXAMPLE CODE

One of the many convenient features of PopChart Builder is that it will automatically generate code to embed a PopChart image for you. Simply load or create an appearance file, select File > Sample Code, and choose the type of example code that you want. A dialog with sample code that you can copy will pop up.

In this dialog, you have a variety of choices. you can generate example code for a variety of environments, including JSPs, ASPs, Servlets, JavaBeans, JavaScript, PHP pages, and just straight HTML. The dialog also allows you to specify important variables, such as PCScript and your server address.

In some cases, you can cut and paste this example code directly into a file on your web server and have it work immediately. Most of the time, though, you'll want to customize this code further before publishing your PopChart image.

Either way, the sample code can save you a lot of time. And, of course, it's a great learning tool.

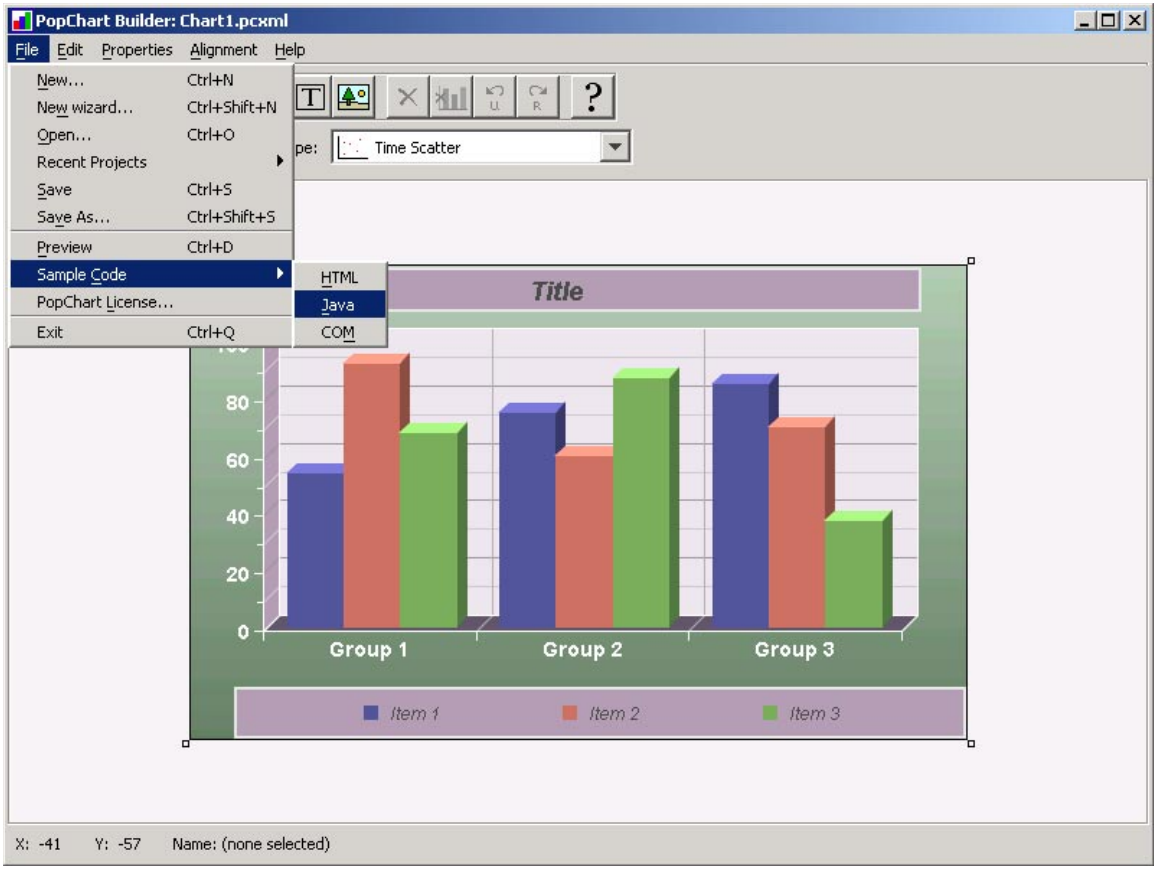
To Test the Appearance File with the JavaScript PopChart Embedder

These steps will help you test your appearance file with the example code generated for the JavaScript PopChart Embedder.

1 **Start PopChart Builder.**

2 **Create and save an appearance file (or load one).**

3 **Select File > Sample Code > Java.**



4 **Under the Show Code For option, select JavaScript.**

5 **Click on the Copy Code to ClipBoard button.**

6 **Open up a new file in a text or HTML editor and paste the example code into the file.**

7 **Save the file to your computer as a web page (e.g. popchart.html).**

8 **Start PopChart Server on your computer.**

9 **View the web page that you saved in step 7.**

If all goes well, you should see a PopChart image when you view the web page.

If you don't see anything, make sure PopChart Server has been started, and that it is running at http://localhost:2001. If it is running on a different machine, change the PopChartServer URL value in the sample code dialog. Also be sure to upload the appearance file to the same location on that machine.

For more instructions on embedding PopChart images, refer to Chapter 4, "Embedding PopChart Images in a Web Page," in the *PopChart Server User Guide*

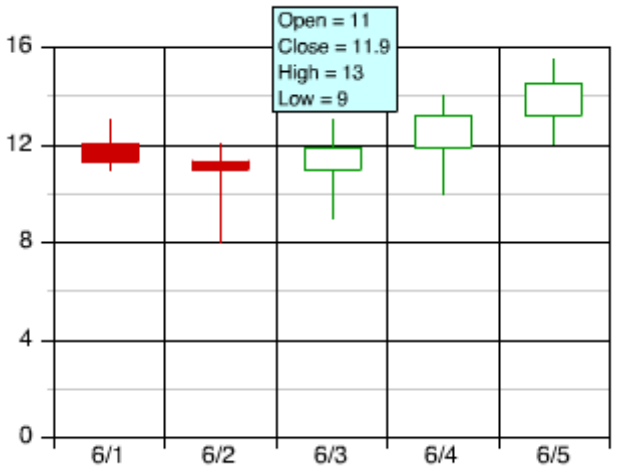
NEW FEATURES

This section contains information about some of the new advanced features in PopChart Builder. These topics include:

- Custom Data Label Formatting
- Global Drill-down Settings and Macros
- PopChart Notes

CUSTOM DATA LABEL FORMATTING

Data Labels can now be customized using macros. For example, in previous versions you only had one option for displaying data labels: the number only. Now, using macros, instead of having a data label that says *43*, you can have one that says *Price: $43*. When combined with showing data labels on rollover, customized data label formatting may virtually eliminate the need for PopUp Text.



Macros are text keywords that stand for a dynamic value, such as a series or category name, or a data value. By using macros, you can make it so that each data label contains information pertinent only to the data item it is associated with.

To customize your data labels, select a graph, right click on it, and select Data Label Properties. The Data Label Format (All Graphs Except Pie) text box lets you change the data label format. A list of available macros is shown below in the Value

keywords pull-down menu. You can insert any of these macros into the text box by selecting the macro and clicking in the Insert button.

For example, by default the data label format is simply %_VALUE. This will display only the data value in the data label. If you wanted the data label to display the data series name, followed by a colon, followed by the data value, followed by a dollar sign, you could change the data label format to %_SERIES_NAME: %_VALUE$.

Table 1.1 lists the available data label formatting macros.

TABLE 1.1 Data Label Macros

Macro	Description	Graphs
%_BUBBLE_VALUE	The value of the bubble in an X-Y or Time Bubble graph.	X-Y or Time Bubble
%_CATEGORY_NAME	The name of the category that the data item belongs to.	All, except X-Y and Time Plot
%_CATEGORY_TOTAL	The sum of all data values in the category to which the data item belongs (applies to	Area, Bar, Line, Pareto, Pie, Radar
%_CLOSE_VALUE	The close value for a high-low data item.	Stock
%_GRAPH_TOTAL	The sum of all data values in a bar, line, pie, or radar graph.	Area, Bar, Line, Pareto, Pie, Radar
%_HIGH_VALUE	The high value for a high-low data item.	Stock
%_LOW_VALUE	The low value for a high-low data item.	Stock
%_OPEN_VALUE	The open value for a high-low data item.	Stock
%_PERCENT_OF_CATEGORY	The data value represented as a percentage of the sum of all data values in its category.	Area, Bar, Line, Pareto, Pie, Radar
%_PERCENT_OF_TOTAL	The data value represented as a percentage of the sum of all data values in the graph.	Area, Bar, Line, Pareto, Pie, Radar
%_SERIES_NAME	The name of the data series that the data item belongs to.	All
%_TIME_VALUE	The time value for a Time Plot data item.	Time Plot
%_VALUE	The value of the data item.	Area, Bar, Line, Pareto, Pie, Radar
%_XVALUE	The x value for an X-Y data item.	X-Y
%_YVALUE	The y value for an X-Y or Time Plot data item.	X-Y, Time Plot

You can also change the data label format for an individual data series. Simply edit the value in the Data Label Format text box of the Series Properties > Data Labels pane.

For information about dynamically changing the data label format, refer to "Drill-down Effects" on page 7-14 of the *PopChart Server User Guide*.

PARETO DATA LABELS

Data labels on a pareto graph work just like data labels fro any other graph (...). However, since the bars typically indicate a different type of value (e.g. dollars) than the line (percentage), you need to "trick" your appearance file into displaying a different symbol for the data labels along the line.

For example, suppose you set your data label format to *$%_VALUE*. A data label along the bar would look much like you would expect it to (e.g. *$43,000*). However, a data label along the line would unfortunately also include the dollar sign. So, wehereas you would want the data label along the line to be labelled as a percentage (e.g. *43%*), it would instead use the same data label format as the bar (e.g. *$43*). This, of course, is probably not what you want to happen.

To work around this problem, first set your global data label string (select Graph Properties > Data Labels in PopChart Builder) to the format that you want data labels along the line to use (e.g. *%_VALUE%*). Next, use the series data label override (select Series Properties > Data Leabels in PopChart Builder) to change the data label format of the bars (e.g. *$%_VALUE*). This should give you the correct data label format both for the pareto line and bars.

GLOBAL DRILL-DOWN SETTINGS AND MACROS

A graph's global drill-down destination can be set in the Drill-down URL text box of the Graph Properties > Drill-down dialog pane. The global drill-down destination will be applied to any data item that does not have an individual drill-down destination set in either the Series Properties dialog, PopChart XML, or PCScript.

Like data labels, the global drill-down destination can also be customized using macros. In many cases, this may make it so that you no longer have to worry about setting drill-down effects for individual data items.

For example, you could set your global drill-down destination to morestats.jsp?%_SERIES_NAME. If a user clicks on any data item in the Blue series, PopChart Server will drill-down to the address morestats.jsp?Blue.

The Value keywords pull-down menu below the Drill-down URL box lists the available data macros. You can insert any of these macros by selecting the macro and clicking Insert. Table 1.2 lists the available drill-down macros.

TABLE 1.2 Drill-down Macros

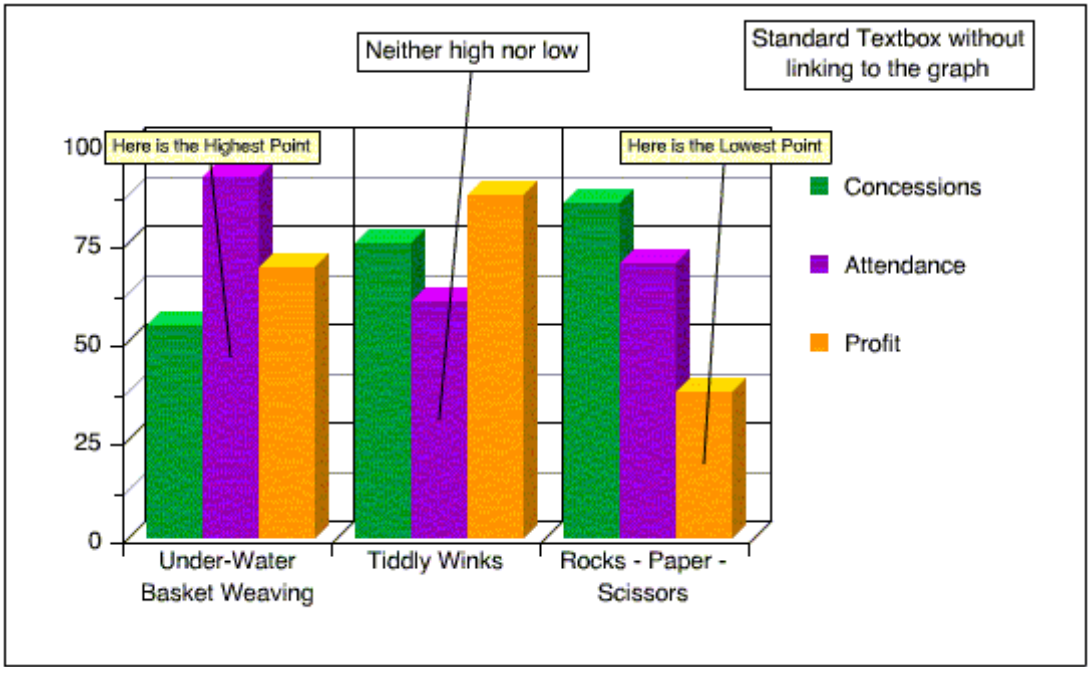
Macro	Description	Graphs
%_CATEGORY_NAME	The name of the category that the data item belongs to.	All, except X-Y and Time Plot
%_CATEGORY_NUMBER	The number of the data series that the data item belongs to.	All, except X-Y and Time Plot
%_POINT_NUMBER	The number of the data item in the data series (e.g, the first plot point=1).	X-Y and Time Plot
%_SERIES_NAME	The name of the data series that the data item belongs to.	All
%_SERIES_NUMBER	The number of the data series that the data item belongs to.	All

For information about dynamically adding or changing drill-down text settings, refer to "Drill-down Effects" on page 7-14 of the *PopChart Server User Guide*

POPCHART NOTES

A new feature in PopChart 4.0.5 is *PopChart Notes*. Notes are a combination of text boxes and PopUp text (in fact, another name for them is *Sticky PopUp*). Like PopUp text, they are attached to a specific data item. However, like text boxes they are always visible. Notes "call-out" from the data item—there is a leader line from the data item to the note box.

The image below shows a PopChart image that uses notes. The appearance file for this image is located in chart_root/examples/apfiles/notetest.pcxml.



DYNAMIC POPCHART NOTES

PopChart Notes can be added dynamically with the `graph.AddNote()` PCScript method, or the `Note` attribute of the PopChart XML `Data` element (refer to "PopChart Notes" on page 7-9 of the *PopChart Server User Guide*). You can change the way that dynamic Notes look in the Graph Properties > Notes dialog pane.

ATTACHING POPCHART NOTES TO TEXT BOXES

With the `graph.AddNote()` PCScript, or the `NoteTarget` attribute of the PopChart XML `Data` element (refer to "PopChart Notes" on page 7-9 of the *PopChart Server User Guide*), you can also attach a note to a text box. When you do this, the text box becomes the PopChart Note. This allows you greater control over the placement of the note. It is also useful when you want several notes that have different formats than dynamically generated notes.

When you attach a Note to a text box, you may want to set the text box so that it will only appear if it is attached to a Note. This way, if you decide not to attach a Note to the text box, the text box will be invisible. To do this, go to the General pane of the Text Box Properties dialog and check the Only Display Textbox as a Note box.

If you are creating text boxes for the sole purpose of using them as PopChart Notes, you may also want to consider creating static PopChart notes, which allow you to better see how the text box would look as a PopChart note, as well as set the Only Display Textbox as a Note option for you.

USING STATIC POPCHART NOTES

You can create static PopChart Notes in an appearance file by going to the Series Properties > Note Text dialog pane. Simply enter the text for a PopChart Note next to the data item that you want to attach the note to, then click OK. The Note will appear in the designer.

You can customize this static PopChart Note as if it were a text box. In fact, for all practical purposes, it is a text box. the first notebox will be named `notebox1`, the second will be named `notebox2`, and so on.

Static Notes will disappear from a PopChart image if you load new data into the graph. However, they will reappear if you dynamically add a PopChart Note and attach it to the note box.

TIPS FOR CREATING GOOD APPEARANCE FILES

An important thing to remember when you are creating an appearance file is that you are not creating a static image; you are designing a template for dynamic charts and graphs. Because of that, the image that you see in PopChart Builder can often be very different from the image generated by PopChart Server.

You should consider the following factor when creating a well-designed PopChart appearance file:

- Object Names
- Appearance File Dimensions
- Sample Data
- Colors and Color Themes
- Dynamic Object Resizing and Repositioning
- Image Format

OBJECT NAMES

In order to send dynamic data to and/or customize objects in an appearance file, each object must have its own unique name. You will use this name to reference the object when you send PCScript or PopChart XML commands to PopChart Server. For example, the PCScript command to modify the data inside a text box is:

```
textbox.SetText(My Title)
```

In this case, the name of the text box object is `textbox`. Were the name something else, like `title`, for instance, the command would be:

```
title.SetText(My Title)
```

Thus, it is important to know what your objects are named and to make sure there are no duplicate names. By default, PopChart Builder assigns each object a unique name. The first graph will be named `graph`, and all subsequent graphs will be named `graph2`, `graph3`, and so on. Text boxes and legends follow a similar naming scheme, except text boxes are based on the name `textbox`, and legends on the name `legend`.

You may want to change these names to something more easy to remember. For example, if you have pie graph named `graph2` that you use to show voting percentages, a name like `votingpie` might be more suitable to your needs.

To Change the Name of an Object

1. **Select the appropriate object.**
2. **Bring up the properties dialog for that object by either double-clicking on the object or selecting the appropriate option from the Properties menu.**
3. **Click on the Advanced tab.**
4. **Enter in the new object name in the box to the right of the words Object Name.**
5. **Save the settings by clicking on Apply or OK.**

TITLE TEXT BOX

One very important object is the title text box. The text box named `title` is always considered the title text box. When you display descriptive text, the contents of this text box will be used to determine the title of your graph.

To set a Title Box in an appearance file

1. **Select the text box that contains the project title.**
2. **Right-click on the text-box.**
3. **Select Set as Title.**

This will change the object name to `title`. If another text box was previously set as the title text box, it will be given a different name.

APPEARANCE FILE DIMENSIONS

When you create an appearance file, you should always try to make sure that the dimensions of the appearance file are exactly the same as the dimensions of the images you want to output. Changing the dimensions of your appearance file dynamically can lead to reduced image quality or unexpected repositioning of your objects (see below).

To change the dimensions of your appearance file, you can either click and drag out a corner of the appearance file's border in the PopChart Builder interface, or you can select Project Properties > General and change the Size in Designer values.

DYNAMICALLY RESIZING THE APPEARANCE FILE

You can dynamically resize your PopChart images through the `height` and `width` PopChart Embedder attributes or the `@_HEIGHT` and `@_WIDTH` server commands. However, resizing PopChart images does not mean that the image will be scaled. It will simply enlarge or reduce the dimensions of your PopChart images. Objects may be repositioned if they are outside of the appearance files boundaries.

You can also scale your PopChart image with the `htmlHeight` and `htmlWidth` PopChart Embedder attributes. This not recommended if you are using the GIF or PNG image formats, as image quality will suffer.

SAMPLE DATA

It is difficult to anticipate what or how much data will be put into your template. A graph that looks good with a very small sample data set may look horrible with twenty or thirty categories and series. Therefore, you should try to make your sample data set as close as possible to the data sets that you expect to be used with your appearance file.

To change your sample data, click on your graph and select Properties > Data Editor.

You may also want to test your template with a variety of data sets to make sure that it still looks good.

COLORS AND COLOR THEMES

Set colors for all of your data series, not just the ones that you see in PopChart Builder. That way, if your user inputs more data series than you expected, you still have control over the colors in your graph. You can set these by changing the Series Colors buttons on the top half of your Graph Properties > Colors dialog. Alternatively, you may want to provide your user with color themes refer to Chapter 11, "Color Themes," in the *PopChart Server Reference* manual.

DYNAMIC OBJECT RESIZING AND REPOSITIONING

Because the data that you use with appearance files is dynamic, objects such as text boxes, legends, and graphs can grow to unexpected sizes. To compensate for that, PopChart Server can try to resize your objects. For example, If a text box doubles in height, overlapping with a graph, PopChart Server will shrink the graph to compensate.

Most of this functionality is turned on by default. However, you may not want this behavior. For example, if you have a text box that you want to always stay the same size, you may need to turn off its `Auto Size Adjustment` option.

The following is an explanation of options that affect object repositioning. It is divided into the following topics:

- Global Repositioning Options
- Graph Resizing
- Legend Resizing
- Text Box Resizing
- Scale Label Adjustments

- Aligned Objects
- Anchored Objects

GLOBAL REPOSITIONING OPTIONS

In the Advanced pane of the Properties > Project Properties dialog, you will find the following global repositioning options. By default, they are all enabled.

ADJUST GRAPH SIZE TO PREVENT OVERLAP

If checked, this setting automatically resizes graph objects so that they do not overlap with other objects, such as text boxes, legends, and other graphs.

AUTO RESIZE TO FIT HEIGHT AND WIDTH

If checked, this setting attempts to automatically resize the objects in the PopChart image so that they scale to the dimensions specified in the request to PopChart Server. This applies only when the `height` and `width` PopChart Embedder attributes or the `@_HEIGHT` and `@_WIDTH` server commands have been used.

Note: *PopChart Server will not resize any fonts, so you may not like the results you get with this setting if you shrink the dimensions of the appearance file.*

KEEP COMPONENTS WITHIN HEIGHT AND WIDTH

If checked, this setting forces the appearance file to format itself so that all of its objects remain inside of its border. This setting is useful when dealing with dynamic data, as the legend and graph objects can grow to unanticipated sizes.

GRAPH RESIZING

When you create a graph, all parts of the graph are placed within predefined boundaries. This includes everything on the grid area, as well as text, tick marks, and scales.

By default, the data you provide is scaled to fit within these boundaries. This means that as the scales and scale label text grow, the grid area may shrink to compensate. However, you can set the tick marks and scales to be outside of these boundaries so that the grid area always remains the same size.

The following two settings, in the Graph Properties >General dialog affect boundary settings:

- Keep text and ticks within graph bounds. When selected, the grid area, gridlines, labels, and ticks will be placed within the bounds of the graph.
- Allow text and ticks outside of bounds. When selected, the graph bounds affect only the size of the grid area. Tick marks, scale labels, and text will be positioned outside the graph boundary.

  If the label text is larger than the graph, you may want to select this option. Note that if the labels extend beyond the project border they will be cut off.

This option is also beneficial when two graphs are combined (overlaid) for data comparisons. It allows you to easily align the grid areas.

The size of scale labels may also affect graph labels (see "Scale Label Adjustments" on page 1-22).

LEGEND RESIZING

A legend will never shrink in size.

By default, it also will never grow in size, even if it runs out of room to display legend items. However, you can change this behavior in the General pane of the Legend Properties dialog. Checking the Grow Vertically if Needed and Grow Horizontally if Needed boxes will allow the legend to grow vertically and horizontally, respectively. The Max Width and Max Height values place a limit on how much the legend can grow.

If, after trying to grow the legend, PopChart Server still cannot fit all of the items inside of the legend's bounds, it will try to fit the items by adding additional columns to the graph. You can specify the maximum number of columns by checking the Set number of columns to option and entering a number in the text box to the right of the column.

If the legend items still do not fit, PopChart Server will shrink the legend font. you can set the minimum size of the legend font in the Minimum Font Size box.

As a last resort, PopChart Server will attempt to truncate the legend item. You can control how much of the legend item PopChart Server truncates by entering a value in the Truncate Down to X Characters box. The default value is *20*.

TEXT BOX RESIZING

By default, text boxes will automatically shrink so that the text fits exactly within the box. besides the margin, which can be set in the General pane of the Text Box Properties dialog, there will be no space between the text and the text box border.

In the Auto Size Adjustment section of this same dialog, you disable this behavior by unchecking the Shrink to Width and Shrink to Height boxes, which allow the text box to shrink its width and shrink its height, respectively.

A text box cannot grow wider than the value of its Max Width option, which is *600* by default. However you cannot limit the amount a text box can grow vertically.

SCALE LABEL ADJUSTMENTS

Depending on the number of categories in your graph, PopChart Server may have difficulty displaying all of the scales labels. When this happens, PopChart Server will try several actions to automatically accommodate the scale labels.

You can control how PopChart Server adjusts the scale labels by checking or unchecking scale label adjustments in the Bottom Scale Properties > Label dialog pane. You can also make manual adjustments to the scale labels to prevent overlap; however, you are less likely to prevent overlap when you make these adjustments manually.

AUTOMATIC SCALE LABEL ADJUSTMENT

By default, PopChart Server will automatically try to adjust the scale labels to prevent overlap. If this option has been disabled, you can re-enable automatic scale adjustments by selecting As Needed as the value of the Perform the Following Adjustments option.

If overlap occurs, it will try to apply any rules that have been checked below in order to prevent overlap. It begins by applying the highest (closest to the top of the pane) checked rule. If that doesn't work, it discards the rule and attempts to apply the next checked rule. It does this until it has exhausted its options. PopChart Server then attempts to apply the adjustments in tandem (i.e. Wrap Text and Shrink Font, Wrap Text and Stagger Labels, etc.) until it exhausts its options. If this fails, it attempts to apply the rules three at a time, and so on.

These are the adjustment options available to PopChart Server. You can disable any option by unchecking it.

WRAP TEXT When selected, PopChart Server will wrap the text in the scale label at the specified number of characters.

SHRINK FONT TO When selected, PopChart Server will reduce the font of the scale label to the specified point size.

STAGGER LABELS When selected, PopChart Server will stagger the labels so that every other one appears on an alternating level.

ROTATE When selected, scale labels will be rotated to try to make more room. They will be rotated to the number of degrees specified in the box to the right of this option.

SKIP LABELS When selected, certain labels will be skipped. The bar, line, area, or plot point will still be shown for that category, but the scale label will not.

The graph will use the specified number to determine how many labels to skip. For example, if the value is 1, it will display every other label. If the value is 2, it will display every third label.

MANUAL SCALE LABEL ADJUSTMENTS

You may always make the following adjustments to your scale labels. These options are shown at the top of the Bottom Scale Properties > Label dialog pane.

LIMIT LABEL CHARACTER LENGTH This option limits the character length of each scale (category) label to the specified number. If the label is longer, it will truncate it and add a period on the end. This period counts as part of the character length. You can set different values for the length of regular labels and the length of rotated labels.

FIRST LABEL TO BE DISPLAYED This specifies the first bottom scale label that will actually be shown.

You can also make any of the adjustments listed in "Automatic Scale Label Adjustment" above by disabling automatic scale adjustments and selecting the adjustment manually.

DISABLING AUTOMATIC SCALE ADJUSTMENTS

You can disable automatic scale adjustments by selecting Always as the value of the Perform the Following Adjustments option. When you do this, PopChart Server will do nothing to prevent the overlap of scale labels. Additionally, any scale label adjustments that are checked will always be applied, even if there is no overlap.

ALIGNED OBJECTS

When you align a group of objects, you tell PopChart Server to shrink or grow these objects in such a manner that the objects will always be aligned with each other.

To align objects

1. **Select an object.**
2. **Select the other object(s). These object(s) will be aligned to the first object.**
3. **Select Alignment from the menu bar or right-click the selected item to display the alignment options.**
4. **Specify the desired alignment option.**
   - Left. Aligns the second object, and any subsequently selected objects, with the left edge of the first selected object.
   - Center. Aligns the second object, and any subsequently selected objects, with the horizontal center of the first selected object.
   - Right. Aligns the second object, and any subsequently selected objects, with the right edge of the first selected object.
   - Top. Aligns the second object, and any subsequently selected objects, with the top edge of the first selected object.
   - Middle. Aligns the second object, and any subsequently selected objects, with the vertical middle of the first selected object.
   - Bottom. Aligns the second object, and any subsequently selected objects, with the bottom edge of the first selected object.

ANCHORED OBJECTS

Anchors are used to specify the position of graph, legend, and text box objects as they expand.

For example, if additional text is added to a text box, the anchor points determine how the text box will adjust for the additional text. If you specify the Vertical Anchor as Bottom, and the Horizontal Anchor as Right, then as you add text to the text box, the bottom right of the text box will remain stationary, while the text box will expand left and upwards to accommodate the additional text.

To anchor an object

1. **Select the object you wish to anchor.**
2. **Using the Properties menu, select the object's properties dialog.**
3. **Select the Advanced tab.**
4. **Change the anchor settings using the radio buttons.**

   You can anchor an object vertically to these three positions: Top, Middle, or Bottom.
   You can anchor an object horizontally to these three positions: Left, Center, or Right.
5. **Select Apply or OK to save your settings.**

IMAGE FORMAT

For best image quality, we recommend that you serve your PopChart images in the Macromedia® Flash™ or SVG™ formats. If you are serving your images in a different format, you should consider the following:

PDF AND EPS PDF and EPS images allow no interactivity. Drill-down effects, rollover data labels, transparency, and PopUp text will not be shown in these image formats.

PNG Interactivity in PNG is supported via image-maps. Because of this, some older browsers may not support Drill-down effects, rollover data labels, and PopUp text. Also, feedback will be slow—it may take up to 2 seconds for rollover data labels or PopUp text to appear.

GIF If you anticipate that your appearance file will be used mostly to generate GIF images, you should probably take into consideration that GIF images only support 256 colors. If you use a lot of colors or gradients in your graph, the image may not look as good as you want it to look when it is shown as a GIF image. Be sure to preview your appearance file to make sure that it looks okay as a GIF image.

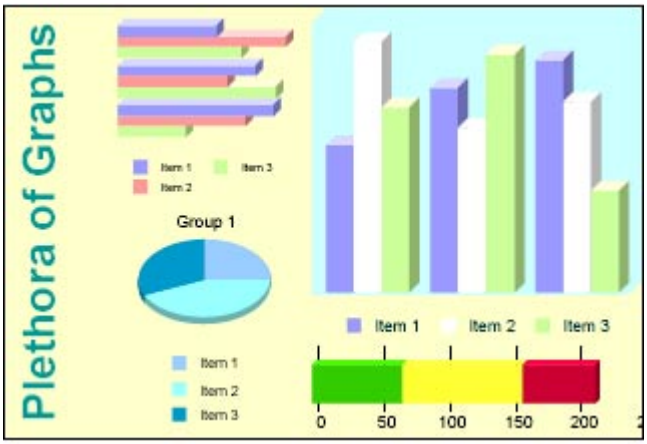
Interactivity in GIF is supported via image-maps. Because of this, some older browsers may not support Drill-down effects, rollover data labels, and PopUp text. Also, feedback will be slow—it may take up to 2 seconds for rollover data labels or PopUp text to appear.

WBMP If you anticipate that your appearance file will be used mostly for WBMP images, you will have to consider several factors as you create your appearance file.

For details, refer to "WBMP" on page 14-15 of the *PopChart Server Reference* manual.

USING MULTIPLE GRAPHS IN THE SAME APPEARANCE FILE

One very useful feature of PopChart Builder is the option to place multiple graphs in the same PopChart project. Each graph can have its own data, legend, and settings, as you can see in the PopChart image below.



For the most part, using multiple graphs in the same project is pretty straightforward. To place a second graph in your project, all you have to do is click on the Create a Graph button. To add a legend to this graph, simply select the graph and click on the Create a Legend button. You can customize the second graph just as you would customize any other graph.

If you are going to use your PopChart project as an appearance file for PopChart Server Pro, though, it is important that you be aware of each graph's name. You will use the graph names when you change data or settings with the PCScript you send PopChart Server Pro. Thus, it is important that you know the names of the objects in your project, and that you don't give objects the same name.

By default, PopChart Builder will try to give each object a unique name. Usually, the first graph object will be called `graph`, the next one called `graph2`, and so on. Text boxes and Legends have a similar naming scheme. You can see the name of an object by selecting that object and then looking at the status bar at the bottom of the PopChart Builder window. The name will be the last piece of information listed, right next to the word Name.

Occasionally, you may find it useful to rename the object. For instance, if your Pie graph is named `graph22`, you could rename it to `pie` for easier reference.

To Change the Name of a Graph (or Any Object)

1 **Select the Object**

2 **Select Properties > Graph Properties or right-click on the graph and select Graph Properties.**

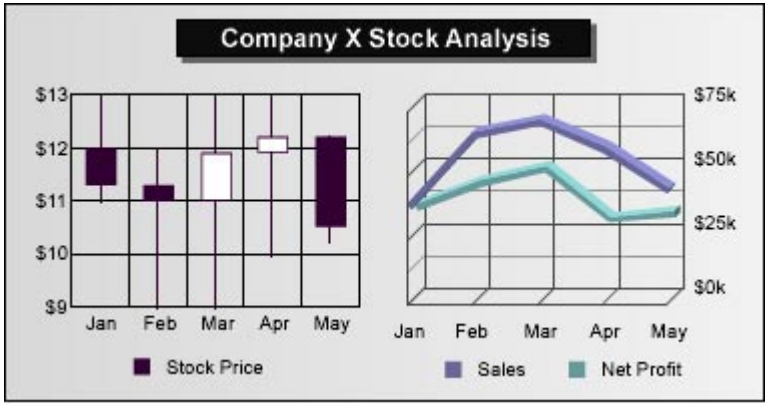
3 **Go to the Advanced tab**

4 **Change the name listed in the box next to the words Object Name.**

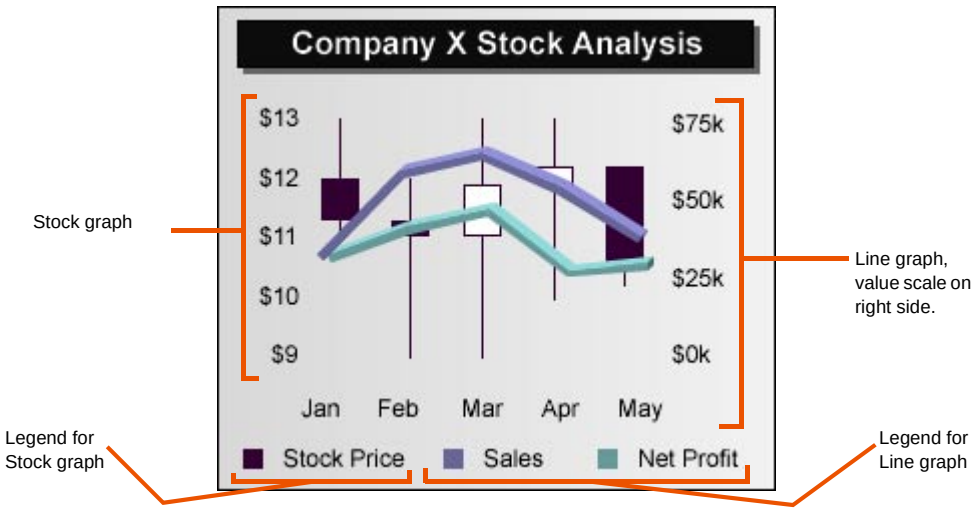
Important: *If you make a template from a project that has multiple graphs, and then try to create a new graph from the template using the PopChart Wizard, you will only be able to customize the settings for the first graph that was created in the project. You will have to customize everything else outside of the Wizard.*

OVERLAYING GRAPHS

One reason you might want to use multiple graphs is to layer one graph over another. This is useful when you want to compare two different data sets with different graph types and/or with different data ranges. For an example of how this might be useful, consider the following PopChart image.



This image might be more interesting and useful if we overlaid the Line graph on top of the Stock graph so that we can make a visual comparison of the data more easily. The next PopChart image shows what this might look like.



Note that we had to make some modifications to the gridlines and scales to achieve this effect. Particularly, we removed bottom scale of the Stock graph so that the two bottom scales wouldn't overlap with each other. Because of this, we also had to change the size of the Stock graph. Also note that we put the scale for the Line graph on the right side of the graph so that the two scales wouldn't overlap.

You will probably find the items on the Alignment menu of the PopChart Builder interface helpful in overlaying graphs, especially the Move to Front and Move to Back items.

CREATING TEMPLATES FOR PopChart Builder

If you or your company create many graphs that are similar to each other, it may be beneficial to create a PopChart template. PopChart Builder users will be able to create appearance files from this template while using the PopChart Wizard. Since your template will already be customized to suit your or your company's needs, the only thing you will have to do to create your final PopChart image after you select this template is enter in the new data. Obviously, this greatly simplifies the PopChart creation process.

To Create a PopChart Template

Creating a template is very easy.

1. **Create a PopChart project that looks exactly like you want your template to look.**

   You may want to refer to "Tips for creating a PopChart Template" below for suggestions on how you should format your template.

2. **Save your project.**

3. **Locate your appearance file.**

4. **Copy your project file to the PopChart Builder template directory.**

   This directory is the one specified in User Preferences > Template Directory. To keep things organized, you may want to create folders in the template directory for your new templates (e.g. Company Templates or Daily Stock Quotes).

   You may also want to change the name of the template file so it is something more appropriate (e.g. Stock Price 3D Bar.pcxml).

To Set a Title Box in a PopChart Template

One aspect of your template that you will want users to customize in the PopChart Wizard is the title box. Because the title box is just like any other text box, you will need to name it `title` so that the PopChart Wizard knows that it should put the title in that box.

1. **Select the text box that contains the project title.**

2. **Right-click on the text-box.**

3. **Select Set as Title.**

This will change the object name to `title`. If another text box was previously set as the title text box, it will be given a different name.

TIPS FOR CREATING A POPCHART TEMPLATE

- Make your project self-explanatory, so users know what they should modify and what they should leave alone. For example, if you have a text box where the user should enter today's date, you should put the text *Enter Today's Date* in the text box.
- Find out the image format and size that appearance files created from your template will need be set to. Set these in the template using Project Properties.
- It is difficult to anticipate what or how much data will be put into your template. A graph that looks good with a very small set of sample data may look horrible with twenty or thirty categories and series. Test your template with a variety of data to make sure that it still looks good.
- Avoid manually setting scales. Because you don't know the data that will go into your graph, you may inadvertently clip some of the data.
- Decide how you want the graph to automatically adjust your bottom scale labels. This way, if it has to adjust labels, you have control over what it can and cannot do. For more information, refer to the section entitled "Scale Label Adjustments" on page 1-22.
- Again, because the data may vary, be careful when setting Drill-down URLs or PopUp Text. Only set these when you are absolutely certain that the data values you set these for will always use your drill-down or PopUp settings.
- If you want users to be able to change the title from within the wizard, make sure you name your title textbox *title* (refer to "Title Text Box" on page 1-19).
- All of the tips that apply to appearance files also apply to templates. For more information, refer to the section entitled "Tips for Creating Good Appearance Files" on page 1-18.

A

DIALOG REFERENCE

This appendix is a comprehensive list of all the dialogs and options you will see as you use PopChart Builder. It briefly describes the functionality of each option and then refers you to the main documentation for further explanation of that functionality. It is intended for reference only.

Note: *When a dialog or option applies only to certain graph types, a list of the graph types that it applies to will appear to the left of the heading for that dialog or option.*

The following dialogs are discussed in this appendix:

POPCHART WIZARD

The PopChart Wizard simplifies the process of creating your appearance file. It will guide you step by step through the process of selecting a graph type, entering graph data, customizing the project, and publishing it to the web.

Note: *Depending on your graph type or template selection, some of the options listed in this section may not be available.*

BUTTONS

Throughout the PopChart Wizard you will see the following buttons along the bottom of the Wizard.

BROWSER PREVIEW This button launches your default web browser and shows you what your PopChart image will look like in it.

HELP This button launches context-sensitive help (in other words, this help window).

CANCEL This button cancels the PopChart Wizard. You will be taken to the PopChart Builder interface where you will see a blank appearance file.

BACK This button goes back one screen in the Wizard. Click on it if you need to go back and change a setting you made earlier.

Warning: If you have made changes in one screen and then go back and make changes in a previous screen, you may lose your first changes.

NEXT This button will go forward one screen in the Wizard. Click on it when you have finished with the current screen.

FINISH This button will end the Wizard and take you to the PopChart Builder interface. Here you will be able to further customize the appearance file that you have created.

WIZARD STARTUP

This screen allows you to choose the method by which you will create your appearance file. You can choose to build a project from a template or from the standard graph types. The screen explains what each option does.

SHOW THE POPCHART WIZARD ON STARTUP If you uncheck this, the next time you start PopChart Builder, you will skip the PopChart Wizard and

go directly to a blank appearance file in the PopChart Builder interface. You can make PopChart Builder start with the PopChart Wizard again by checking the Start New Wizard on Startup box in your User Preferences.

STANDARD TYPES (SCREEN 1)

This pane allows you to select a base graph type for your appearance file. To learn more about graph types, refer to Chapter 13, "Graph Types," in the *PopChart Server Reference* manual.

SELECT A GRAPH TYPE Allows you to choose from the standard graph types.

SUBTYPE Allows you to choose a subtype of your selected graph type.

TEMPLATES (SCREEN 1)

This pane allows you to select a template from which to build your appearance file. Templates are pre-defined projects that are commonly used. You can select from the templates that come with PopChart Builder, or use one that you or your company has designed for you.

SELECT A TEMPLATE Navigate through this tree to find the template you are looking for. PopChart Builder will look for templates in the location specified in the Template Directory field of the User Preferences dialog (See Also: "Template Directory"). The first template you see will be the template that was selected the last time the PopChart Wizard was run.

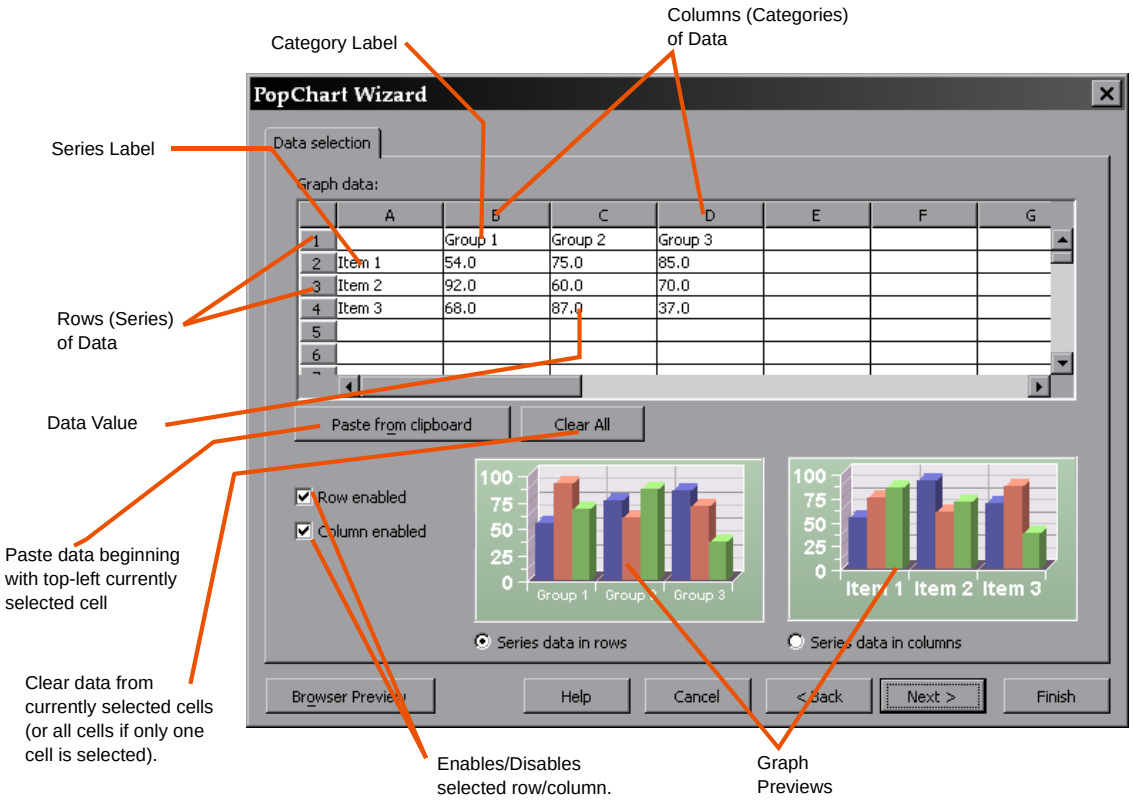
PREVIEW This image is a preview of the currently highlighted template.

DATA SELECTION (SCREEN 2)

This screen allows you to enter data for your graph. You can enter information either manually, or by pasting it from a spreadsheet program. To enter data manually, just select the first row and start typing. The Tab key cycles through the squares. To paste data, copy it from your spreadsheet program and use the Paste from clipboard and Clear All buttons to place it in the Wizard data table.

The Paste from Clipboard button will paste data into your table beginning with the top-left most currently selected cell. The Clear button will delete the information in all

currently selected cells. If you have selected only one cell, it will clear every cell in the table.



ROW ENABLED This option toggles the visibility of the currently selected row. If it is unchecked, this row will not be graphed. Otherwise, it will be graphed normally.

COLUMN ENABLED This option toggles the visibility of the currently selected column. If it is unchecked, this column will not be graphed. Otherwise, it will be graphed normally.

SERIES DATA IN ROWS / COLUMNS This option allows you to transpose data by changing what information is considered to be *Series* data. By default, this option is set to Series Data in Rows, meaning that each row constitutes a series and each column constitutes a category. Choosing Series Data in Columns switches this around. The graph previews depicted above this option show you how the graph will look under each setting.

DATA FOR PIE IN COLUMNS / ROWS This option appears for pie graphs instead of the previous option. It works as explained above.

GENERAL (SCREEN 3)

This pane controls general settings for your appearance file. The image on the right shows you how the changes you make in this pane will affect your project.

ENABLE PROJECT BORDER Places a border around the entire project.

BORDER COLOR Launches the Color Properties dialog, where you can change the project border color. For more information about this dialog, refer to "Color Properties" on page A-65.

BACKGROUND COLOR Launches the Color Properties dialog, where you can change the project background color. For more information about this dialog, refer to "Color Properties" on page A-65.

COLOR THEME Changes the graph's color theme. Color themes are pre-set color definitions that help determine the colors of bars, lines, wedges, and areas. You can create color themes adding them to the config/PCColors.xml file. Refer to "Color Themes" on page 11-1 of the *PopChart Server User Guide*.

This screen will be unavailable for gauges.

TITLE (SCREEN 3)

This pane helps you add a title box to your project. The image on the right shows you how the changes you make in this pane will affect your project.

GRAPH TITLE If you enter text into this box, the Wizard will insert a title box into your project. You must press tab or enter for the text you type to be displayed.

TITLE POSITION This option allows you to set the position of your title box. You can put it either above or below the graph. This option is not applicable for templates.

SHOW BORDER If checked, the title box will have a border around it.

SHOW SHADOW If checked, the title box will have a shadow.

FONT This button will launch a Font Properties dialog, where you can change the title font.

This screen will be unavailable for gauges.

AXES (SCREEN 3)

This pane allows you to add or remove axes from the graph. The image on the right shows you how the changes you make in this pane will affect your appearance file. This pane will not appear for templates or for pie graphs or gauges.

BOTTOM AXIS If checked, scale labels and tick marks will appear along the bottom of the graph.

SIDE AXIS If checked, scale labels and tick marks will appear along the side of the graph. You can choose to put them on either the left or right of the graph.

This screen will be unavailable for gauges.

GRIDLINES (SCREEN 3)

This pane allows you to add or remove gridlines. The image on the right shows you how the changes you make in this pane will affect your appearance file. This pane will not appear for templates or for pie graphs, pareto graphs, or gauges.

VERTICAL LINES

These options enable or disable vertical gridlines.

Major Gridlines If checked, major vertical gridlines will be displayed behind the graph.

Minor Gridlines If checked, minor vertical gridlines will be displayed behind the graph. For some graph types, this option does nothing.

HORIZONTAL LINES

These options enable or disable horizontal gridlines.

Major Gridlines If checked, major horizontal gridlines will be displayed behind the graph.

Minor Gridlines If checked, minor horizontal gridlines will be displayed behind the graph. For some graph types, this option does nothing.

This screen will be unavailable for gauges.

LEGEND (SCREEN 3)

This pane helps you add a legend to your appearance file. The image on the right shows you how the changes you make in this pane will affect your project. This pane will not appear for templates or for gauges.

SHOW LEGEND If checked, PopChart Builder will place a legend in the project.

POSITION This option allows you to set the position of the legend. You can place it to the right, left, bottom, or top of the graph.

This screen will be unavailable for gauges.

DATA LABELS (SCREEN 3)

This pane helps you add data labels to your appearance file. The image on the right shows you how the changes you make in this pane will affect your project. This pane will not appear for templates or for gauges.

SHOW DATA LABELS

If checked, data labels will appear when specified below:

Display Always Data labels will always appear.

Display on Rollover Data labels will only appear when a user places his or her mouse over the relevant area.

POSITION

This option allows you to set the position of the data labels.

Outside Top Data labels will appear immediately above the relevant area.

Inside Top Data labels will appear immediately below the top edge of the relevant area.

Inside Bottom Data labels will appear immediately above the bottom edge of the relevant area.

Outside Right (Horizontal Bar graphs only) Data labels will appear immediately to the right of the right edge of each bar.

Inside Right (Horizontal Bar graphs only) Data labels will appear immediately to the left of the right edge of each bar.

Inside Left (Horizontal Bar graphs only) Data labels will appear immediately to the right the left edge of the each bar.

Out w/ Leader (Pie graphs only) Data labels will appear outside of each pie wedge with leaders pointing from the wedges to their label.

Outside (Pie graphs only) Data labels will appear outside of each pie wedge.

Inside (Pie graphs only) Data labels will appear on the inside of each pie wedge.

DATA LABEL TEXT

This section allows you to change the data label format string. For information about this string, refer to "Custom Data Label Formatting" on page 1-12.

SHOW BORDER

This option allows you to choose to display a border around your data label boxes.

BORDER COLOR

You can choose a color for your border by clicking on the color button, which launches the Color Properties dialog, where you can change the data label border color. For more information about this dialog, see "Color Properties" on page A-65.

FONT

This button will launch a Font Properties dialog, where you can change the data label text font and background color. For more information about this dialog, refer to "Font Properties" on page A-64.

This screen will be unavailable for gauges.

POPUP TEXT (SCREEN 3)

This pane helps you customize the appearance of PopUp text in your appearance file. The image on the right shows you how the changes you make in this pane will affect your project. This pane will not appear for templates.

SHOW BORDER PopUp Text will appear with a single line border around it.

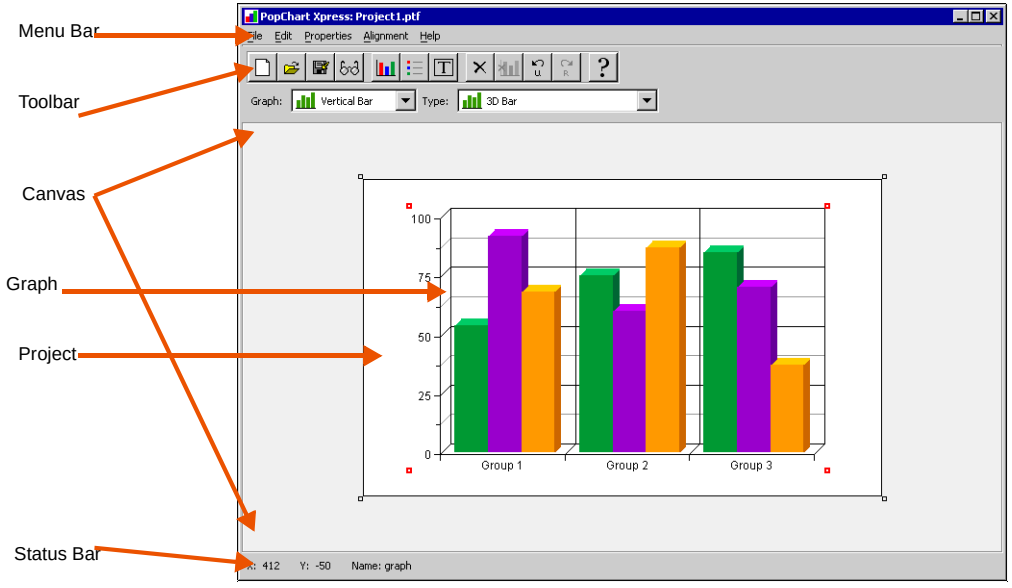
BORDER COLOR Launches the Color Properties dialog, where you can change the PopUp text border color. For more information about this dialog, refer to "Color Properties" on page A-65.

FONT This button will launch a Font Properties dialog, where you can change the PopUp text font and background color. For more information about this dialog, refer to "Font Properties" on page A-64.

This screen will be unavailable for gauges.

PopChart Builder INTERFACE

The interface for PopChart Builder is similar to other applications. In this section, you will learn about the various components of your PopChart project, as well as PopChart Builder's toolbar and menu options. The following figure displays an appearance file in PopChart Builder.



The large area in the background of the main screen is called the canvas. Everything you create in PopChart Builder is done on the canvas.

The rectangular area is called the project area. A project can have one or more graph objects inside of it. It can also have several text box and legend objects.

Graph objects consist of scales, a grid area, and graph items, such as a bars, lines, and pie wedges.

The status bar at the bottom of the canvas identifies the location of your mouse pointer on the screen and the name of the currently selected object in the project.

In addition to understanding the components on the canvas, it is helpful to become familiar with the following: toolbar buttons, menu options, keyboard shortcuts.

TOOLBAR BUTTONS

The toolbar provides quick access to the key functions you perform. Below is a table describing all of the toolbar buttons in PopChart Builder.

Button	Functionality
	New Project
	Open project
	Save project
	Preview project in browser
	Create a graph
	Create a legend
	Create a text box
	Create an Image
	Delete selected object
	Delete selected part of graph
	Undo last action
	Redo last undo
	Show Help
	Select generic graph type
	Select graph sub-type

MENUS

The following table lists all of the PopChart Builder menu items.

FILE MENU

Menu Item	Functionality
New	Creates a new appearance file from a blank canvas. Automatically closes the current document.
New Wizard	Creates a new appearance file using the PopChart Wizard. Automatically closes the current document.
Open	Opens an existing appearance file. Automatically closes the current document.
Recent Projects	Lists the latest (user specified) number of projects accessed in PopChart Builder. Selecting one of these projects will close the currently opened appearance file.
Save	Saves the current appearance file.
Save As	Saves the current appearance file under a different name.
Preview	Opens up the user's default browser and shows how the appearance file will look as a dynamically generated PopChart image.
Sample Code	Opens the Sample Code dialog. This dialog will help you generate code to embed your appearance file into a web page.
PopChart License	Prompts the user for the PopChart Builder license key.
Exit	Exits the Program.

EDIT MENU

Menu Item	Functionality
Undo	Undo the last command
Redo	Redo the last undo command
Create Graph	Creates a new graph in the project.
Create Legend	Creates a legend for the selected graph. You can only have one legend per graph.
Create Text box	Creates a text box in the project.
Duplicate Object	Duplicates the selected object
Delete Object	Deletes the selected object
Next Object	Selects the next object
Previous Object	Selects the previous object
Preferences	Opens User Preferences dialog. User preferences include: default configuration for the PopChart Wizard, location for template files, and location for saved projects.

PROPERTIES MENU

The properties menu changes based on the items selected. The following identifies the available property menus:

Menu Item	Functionality
Data Editor	Opens the Data Editor dialog where you can change the graph data and the display configurations, and determine if the graph will reflect the data in rows or columns.
Graph Properties	Opens the Graph Properties dialog where you can change the following: general settings, data labels, gridlines, drill-down configuration, popup text configuration, 3D settings, colors, and position.
Left or Right Scale Properties	Opens the Scale Properties dialog. Scale properties include the following: scale position, tick marks, label configuration, font, and position.
Bottom Scale Properties	Opens the Bottom Scale Properties dialog. Bottom scale properties include the following: tick marks, label configuration, and font.
Data Label Properties	Opens the Data Label Properties dialog where you can change the way data labels are displayed for the currently selected graph.
Series Properties	Opens the Series Properties dialog where you can change the following: general settings, popup text, drill-down data.
Gauge Properties	Opens the Gauge Properties dialog where you can change the data value and label, color ranges, and formatting options.
Text Box Properties	Opens the Text Box Properties dialog where you can change the following: general formatting, font, borders and shadows, and display position.
Legend Properties	Opens the Legend Properties dialog where you can change the font, borders, shadows, and legend display position.
Project Properties	Opens the Project Properties dialog where you can change the following: image format, background color, gradient shading, border style, numeric settings, and advanced settings.
Image Properties	Opens the Image Properties dialog where you can change dimensions, transparency, drill-down, and PopUp settings for an imported image.

ALIGNMENT MENU

Changes the alignment of the currently selected object. For more information on aligning objects, refer to “Aligned Objects” on page 1-24.

HELP MENU

Menu Item	Functionality
Quick Start Guide	Opens the Quick Start Guide which will display the *PopChart Quick Start* manual.
View Documentation	Opens the online help system
Visit PopChart.com	Opens the default browser to the PopChart Builder home page.
Click for Updates	Opens the default browser and checks Corda Technologies website for updates.
Corda Technical Support	Opens the default browser to the Corda Technologies technical support page.
Register PopChart Builder	Opens the default browser to http://www.corda.com/register/registration. If your license key has been entered during installation or through File > PopChart License, your key number will automatically be entered when you go to this page, so you don't have to type it in.
Purchase PopChart Products	Opens the default browser to the online Corda Technologies online shopping mall, where you can buy PopChart products.
About PopChart	Provides version information and copyright details for Corda Technologies, Inc. and PopChart Builder.

KEYBOARD SHORTCUTS

The following table lists the various keyboard shortcuts available in PopChart Builder.

Keystroke	Shortcut To
Alt-F4	Exit
Ctrl-D	Preview in browser
Ctrl-G	Create graph
Ctrl-L	Create legend
Ctrl-N	New
Ctrl-O	Open project
Ctrl-Q	Quit (Exit)
Ctrl-T	Create Text Box
Ctrl-S	Save
Ctrl-Z	Undo
Ctrl-Shift-N	New Wizard
Ctrl-Shift-S	Save As
Ctrl-Shift-Z	Redo
F1	View Documentation

Keystroke	Shortcut To
F10	File Menu
Shift-Tab	Select Previous Object
Tab	Select Next Object

USER PREFERENCES

These settings affect how PopChart Builder will run in general. They can be accessed by selecting Edit > Preferences from the PopChart Builder interface. If you change one of these settings, the change will affect PopChart Builder every time you use it, not just how it behaves for the current appearance file.

GENERAL

The settings on this page affect how PopChart Builder behaves in general.

START NEW WIZARD ON STARTUP

If checked, PopChart Builder will begin with the PopChart Wizard. Otherwise, it will begin with an empty project.

REMEMBER MAIN WINDOW SIZE/POSITION

If checked, PopChart Builder will restart at the same location and with the same size on your screen as when you last exited the program. Otherwise, it will restart in its default location with the default size.

REMEMBER DIALOG POSITIONS

If checked, PopChart Builder will place new dialogs in the same location as when they were last closed. This means if you move a dialog once, you will not have to do it again.

DEFAULT WIZARD TYPE

This determines whether the PopChart Wizard will start with templates (choose Templates, which is selected by default) or with the standard graph types (choose Standard Types).

PREVIEW OPTIONS

These options allow you to control how PopChart Builder will show your PopChart images when you click on the browser preview button.

Image Format Allows you to change the default format of your PopChart images. The available settings are:

- **Flash**
- **SVG**
- **GIF**

Create d Descriptive Text If checked, this box tells PopChart Builder to generate descriptive text for the visually impaired with each new project.

RECENT PROJECTS

The number of projects that PopChart Builder will remember in the Files > Recent Projects menu item.

TEMPLATE DIRECTORY

This is the location for all templates. PopChart Builder will look at this location when showing you the available templates. By default, it is set to the lib/Templates folder inside of the PopChart Builder root directory.

SAVE OPTIONS

The settings in this dialog pane affect how PopChart Builder saves your appearance file.

APPEARANCE PROPERTIES

These settings control how PopChart Builder will generate your appearance file's PopChart XML.

Verbose PopChart Builder will output all attributes and elements, regardless of whether or not they are using the default value. Not only does this setting produce a large appearance file, but it takes PopChart Server up to 4 times longer to process this appearance file. This option is provided mostly to help you learn more about PopChart XML.

Minimal PopChart Builder will remove any attributes or elements that are set to their default value, making your appearance file as small as possible. This is the default setting.

DATA FORMATTING

This controls how PopChart Builder saves the data in your appearance file. The only reason you would want to change this setting is to learn how your PopChart XML should look if you need to import data in PopChart XML using a row/column spreadsheet format instead of the default series/categories/data format.

Native PopChart Builder exports the data as it normally would, using `Series`, `Category`, and `Data` tags. This is the default setting.

Row/Column PopChart Builder exports the data in spreadsheet form, using `Row` and `Cell` tags.

SHOW PCXML ERRORS IN BUILDER

This controls whether or not PopChart Builder will notify you of errors in PCXML documents that it opens. By default, this is turned off. This functionality is provided to help you check the validity of your PCXML documents.

SAVE USING LATEST PCXML FORMAT

Allows you to specify the version of PCXML to use for saving appearance files. If this is not selected, your appearance files will be saved in the 4.0 format. If it is selected, they will be saved in the 4.0.5 format.

Many elements and attributes have been added or renamed since the 4.0 version of PCXML. You cannot use appearance files in the current PCXML version with previous versions of PopChart Builder. However, the current version of PopChart Builder supports previous versions of PCXML.

To maintain backwards compatibility, PopChart Builder saves appearance files in the PCXML 4.0 format by default. If you are using PopChart Server 4.0.5, you can take advantage of new PCXML features by checking this box.

DEFAULT SAVE LOCATION

This is the default location for all saved files. By default, this is set to the chart_root/apfiles folder inside of the PopChart root directory.

DIALOG FONT

This dialog pane allows you to change the system font used by PopChart Builder. If you are unable to see international or double-byte characters when you type them in your text boxes, you can resolve that problem by choosing a font that supports your international or double-byte characters. To change the font, select it by double-clicking or pressing Select. The click OK.

You can change the font back to the default font by clicking the Use Default button.

PROJECT PROPERTIES

This dialog allows you to set global properties for the project, such as the output image type and size of the project background and border colors. This dialog can be accessed by selecting Properties > Project Properties.

GENERAL

Allows you to change general settings for the appearance file.

BACKGROUND COLOR

Sets the background color for the appearance file.

GRADIENT BACKGROUND

Enables and controls the format of the gradient background.

None Uses the Background Color setting only. The background will be solid.

Top to Bottom Makes the background a gradient starting with the Background Color at the top edge of the project and ending with the End Color at the bottom edge of the project.

Left to Right Makes the background a gradient starting with the Background Color at the left edge of the project and ending with the End Color at the right edge of the project.

End Color Specifies ending color for the gradient.

SIZE IN DESIGNER

Sets the size of appearance file in your designer workspace.

This setting only affects how big the project will appear on your screen. It will not scale the graph, text box, or legend objects that are in the project. If you change this setting, you will probably need to resize these objects, also.

Width Specifies the width in pixels of the appearance file.

Height Specifies the height in pixels of the appearance file.

BORDER

Controls the appearance file border settings.

BORDER TYPE

Sets the project border type. Available options include:

- **None**
- **Thin**
- **Regular**
- **Thick**
- **Double Thin**
- **Double - Thin Inside, Thick Outside**
- **Double - Thick Inside, Thin Outside**

COLOR

Sets the project border color.

NUMERIC SETTINGS

Controls the way numbers will be displayed within the project, including abbreviations for large numbers and currency symbols. These settings will affect all objects in the appearance file.

CURRENCY SYMBOL

Specifies the symbol that should be used to display any scale label numbers that represent currency (e.g. *$* or *USD*).

Note: *In order for a number to actually appear as currency you must specify that it be displayed as currency in the Value Scale Properties > Label dialog pane.*

Symbol on Left Places the currency symbol on the left side of the number.

Symbol on Right Places the currency symbol on the right side of the number.

DECIMAL

Specifies the symbol that should be used as the decimal indicator. You can choose either a period (*3.14*), comma (*3,14*), or blank space (*3 14*).

THOUSANDS

Specifies the symbol that should be used as the thousands indicator. You can choose either a comma (*1,000,000*), period (*1.000.000*), or blank space (*1 000 000*).

ABBREVIATION CHARACTERS

Specifies the characters that will be used to abbreviate numbers in the project. For example, if Thousands is set to *K* and you have chosen to display the value as thousands, *$15,000* would be displayed as *$15K*.

Note: *In order for a number to actually appear abbreviated you must specify that it be shown with the abbreviation in the Value Scale Properties > Label dialog pane. Only scale labels can be shown with an abbreviation.*

Thousands Specifies abbreviation for numbers that are displayed as thousands.

Millions Specifies abbreviation for numbers that are displayed as millions.

Billions Specifies abbreviation for numbers that are displayed as billions.

Trillions Specifies abbreviation for numbers that are displayed as trillions.

ADVANCED

Controls advanced settings for the appearance file.

ADJUST GRAPH SIZE TO PREVENT OVERLAP

If checked, this setting automatically resizes graph objects so that they do not overlap with other objects. This setting is useful when dealing with dynamic data, as the legend and graph objects can grow to unanticipated sizes.

AUTO RESIZE TO FIT HEIGHT AND WIDTH

If checked, this setting automatically resizes the PopChart image to the size specified in the request to PopChart Server. This applies only when the `height` and `width` PopChart Embedder attributes or the `@_HEIGHT` and `@_WIDTH` server commands have been used.

KEEP COMPONENTS WITHIN HEIGHT AND WIDTH

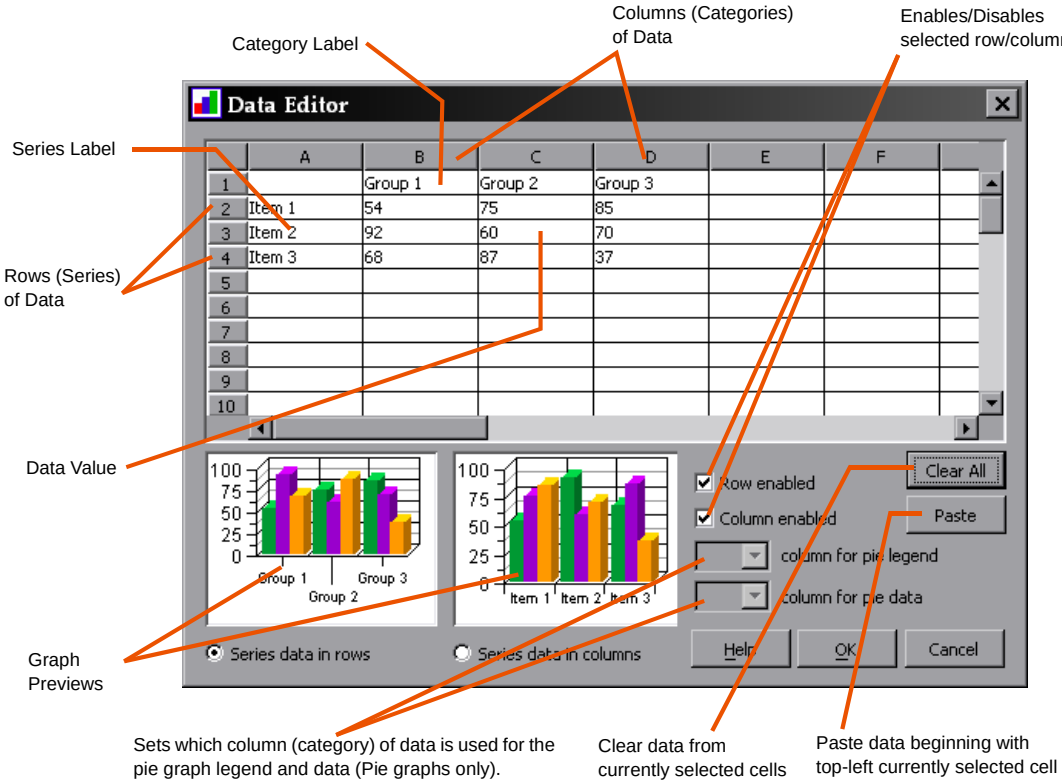
If checked, this setting forces the appearance file to format itself so that all of its objects remain inside of its border. This setting is useful when dealing with dynamic data, as the legend and graph objects can grow to unanticipated sizes.

DATA EDITOR

This dialog allows you to manipulate the data inside of the currently selected graph object. It can be accessed by selecting a graph, and then selecting Properties > Data Editor.

You can enter information manually, or you can paste it from a spreadsheet program. To enter data manually, just select the first row and start typing. The Tab key cycles through the cells. To paste data, copy it from your spreadsheet program and use the Clear and Paste buttons to place it in the PopChart Builder data window.

The Paste button will paste data into your table beginning with the top-left most currently selected cell. The Clear button will delete the information in all currently selected cells. If you have selected only one cell, it will clear every cell in the table.



SERIES DATA IN ROWS / COLUMNS This option allows you to transpose data by changing what information is considered to be *Series* data. By default, this option is set to Series Data in Rows, meaning that each row

constitutes a series and each column constitutes a category. Choosing Series Data in Columns switches this around. The graph previews depicted above this option show you how the graph will look under each setting.

DATA FOR PIE IN COLUMNS / ROWS This option appears for pie graphs instead of the previous option. It works as explained above.

ROW ENABLED This option toggles the visibility of the currently selected row. If it is unchecked, this row will not be graphed. Otherwise, it will be graphed normally.

COLUMN ENABLED This option toggles the visibility of the currently selected column. If it is unchecked, this column will not be graphed. Otherwise, it will be graphed normally.

SERIES ENABLED This option toggles the visibility of the currently selected series. If it is unchecked, this series will not be graphed. Otherwise, it will be graphed normally.

COLUMN / ROW FOR PIE LEGEND Sets which column (category) of data contains the legend and series label information in a pie graph. This option is only available for Pie graphs.

COLUMN / ROW FOR PIE DATA Sets which column (category) of data contains the data information in a pie graph. This option is only available for Pie graphs.

GRAPH PROPERTIES

This dialog allows you to change settings directly related to the currently selected graph. It is accessed by selecting a graph and then selecting Properties > Graph Properties. Depending on the graph type, some or all of the following options may be available. Where appropriate, the graphs that these options affect are listed to the right of the option header.

For more information about Graph Types, refer to Chapter 13, "Graph Types," in the *PopChart Server Reference* manual.

GENERAL

This pane controls general graph formatting and display options.

GRAPH FORMATTING (ALL GRAPHS)

This controls how the graph object is formatted in regards to tick marks and labels.

Keep Text and Ticks Within Graph Bounds This setting keeps scale labels and tick marks within the graph object's boundaries. As the text in scale labels grows, the graph's grid area will shrink to compensate.

Allow Text and Ticks Outside of Bounds This setting moves the scale labels and tick marks outside of the graph object's boundaries. This means that the graph's grid area will always be the same size, regardless of the scale label text. This setting makes it easier to overlap graphs, since it guarantees that same-sized graph objects will have grid areas of the same size.

OUTLINE TYPE (BAR, LINE BAR)

This allows you to apply an outline to your bars. By default, there will be no outline (None). The other options are Lighter and Darker and Color.

Color Launches the Color Properties dialog, where you can change the PopUp text border color. For more information about this dialog, refer to "Color Properties" on page A-65.

SINGLE SERIES MULTICOLOR MODE (BAR)

In the event that there is only one series of data, checking this will make the graph display each item in the series in a different color instead of in the same color. Otherwise this will have no effect. This setting does not apply to Stacked Bar graphs.

SPACE BETWEEN BARS (BAR, LINE BAR, PARETO)

Specifies the amount of white space between each bar in a Bar graph as a percentage of the Bar Width. You can choose from three default settings, or specify another setting by selecting Other and manually entering the percentage of white space.

BAR WIDTH (BAR, LINE BAR, PARETO)

Specifies the width of the bars in a Bar graph as a percentage of the category width. You can choose from three default settings, or specify another setting by selecting Other and manually entering the percentage of white space. This setting does not apply to Stacked Bar graphs.

MANUALLY SET NUMBER OF LINES (LINE BAR)

By default, the series of data in a Line Bar Combo graph are divided evenly into lines and bars. Checking this setting allows you to specify the number of series that should be represented as lines. For example, if you check this box and type in *3* as the Number of Lines, the first three series of data will be shown as lines, while all of the other series will be shown as bars.

FLOATING BARS (STACKED BAR)

Renders the last series, which is represented by the bottom segment of a Stacked Bar graph, invisible. This makes the bar appear to be floating.

SHOW GRAPH LABEL (PIE)

When this is checked, a label will appear above the Pie graph. This label corresponds with the category label for the category that is being graphed.

GRAPH STYLE (PIE)

This option allows you to choose from three different ways of displaying a Pie graph: 2D, 2D with Gaps, and 3D. The picture above each setting will give you an idea of the effect.

SORT DATA (X-Y PLOT, TIME PLOT)

Tells the X-Y Plot graph to draw a line connecting plot points according to the order of their x values as opposed to the order in which they appear on the spreadsheet.

Warning: Do not use PopUp text when you select this option. PopUp text will not work correctly.

BUBBLE SIZE (BUBBLE)

Allows you to scale the size of the bubbles in your graph. This can be useful if you have extremely large or small bubble values.

VALUE REPRESENTED BY (BUBBLE)

Changes how PopChart Builder uses the bubble value to determine the size of the bubble. If set to Width of Bubbles, PopChart Builder will use your bubble value as the diameter of the bubbles. If set to Area of Bubbles, PopChart Builder will use your bubble value as the area of the bubbles.

SHOW WEEKLY GRIDS ON (TIME PLOT)

Selects the day of the week on which minor gridlines should occur. This can be especially useful if you need your gridlines to correspond to Monday for the start of the business week instead of Sunday.

This setting only affects graphs where the range of the time scale is such that the minor gridlines fall on each week. For graphs with a larger time scale (generally, any range larger than six months, with dates occuring over more than one calender year), or a smaller time scale (generally, a range smaller than two months) this setting has no effect.

DATE INPUT FORMAT (TIME PLOT)

This box allows you to change the data input format string.

This string determines how PopChart Builder and PopChart Server translate your data values to actual time values. It uses macros to indicate different values, such as month, day, or minute. You can also enter static text if your time values contain slashes or colons

For example, the default format is *%m/%d/%Y*. this means that when you enter data into the Data Editor, or when you send to PopChart Server dynamically, you should enter the month, followed by a slash, followed by the day, followed by a slash, followed by the four digit year (e.g. 12/31/2001).

As another example, suppose all of the time values you are graphing occur on the same day, and you just want to enter the hour and minutes (e.g. *9:30*, *10:00*, *14:15*, etc). To do this, you would choose *%H:%M* as your date input format.

The table below this box on the dialog screen indicates what time macros PopChart Builder accepts. A list is also available on page 5-17 of the *PopChart Server Reference* manual.

SERIES TRANSPARENCY (RADAR)

Sets the transparency of the area fill for a radar graph. Radar graphs use transparency so that you can see data items below the top data item.

GRIDLINES (ALL EXCEPT PIE, PARETO, GAUGES)

This pane controls settings for the gridlines behind the currently selected graph object. On the left you will find a series of check boxes. Each box, when checked, enables the gridline indicated by the name to the right of the box. The image on the right side of the pane shows you which gridlines correspond to what name. To the left of each check box is a color button. Clicking on these buttons will bring up the Color Properties dialog (refer to "Color Properties" on page A-65), from which you can select a different color for the corresponding gridline.

DRILL-DOWN

This pane controls options for drill-down effects in the currently selected graph. For information about Drill-down effects, refer to "Drill-down Effects" on page 7-14 of the *PopChart Server User Guide*.

DRILL-DOWN URL

This sets a global drill-down destination for the data items in your graph. This is the URL (internet address) of the web page or resource to which the user will be forwarded when he or she clicks on a data item. You can also use JavaScript instead of a URL. This string can contain any macros listed in the Value Keywords box below.

If set, all data items will drill-down to this destination unless you specify otherwise in the Series Properties > Drill-down URLs dialog pane, or dynamically with the `graph.DDEnable()` method.

For information about the global drill-down effects and macros, refer to "Global Drill-down Settings and Macros" on page 1-14.

VALUE KEYWORDS

This is a list of macros that can be used in the drill-down metastring. You can insert any of these macros into the drill-down URL box above by selecting the appropriate macro and clicking on the Insert button. A complete list of these macros is available in Table 1.2 on page 1-15.

METHOD FOR HIGHLIGHTING NON-TEXT ITEMS

This option changes the method for highlighting non-text items, such as bars or pie wedges, that have been enabled for drill-down effects. You can choose from the following options:

OutLine A single line outlines the drill-down area as the mouse passes over it.

Bold OutLine A double line outlines the drill-down area as the mouse passes over it.

Color Change The drill-down area changes color as the mouse passes over it. It will change to a lighter shade of its current color. Note that this means the user will be unable to see the color change on white objects. This only applies to certain graphs.

COLOR FOR TEXT HIGHLIGHTING

When drill-down is enabled for a text item, the color of the text item will change to the color shown in the color button. To change this color, click on the button. This will bring up the will bring up the Color Properties dialog (refer to "Color Properties" on page A-65), from which you can select a color.

POPUP

This pane controls the format of PopUp text in the currently selected graph. PopUp text will appear as a user rolls his or her mouse over a data item. For more information about PopUp text, refer to "PopUp Text" on page 7-12 of the *PopChart Server User Guide*.

Note: *These settings do not change the way popup is displayed for GIF images.*

JUSTIFICATION

Changes the justification of the PopUp text. Settings include: left, center, and right. The effects of this setting will only be seen when there are multiple lines of PopUp text.

MARGIN VALUES

These values set the margin between the actual PopUp text and the edge of the PopUp text box.

Top Sets the space in pixels between the top of the text and the top edge of the text box.

Left Sets the space in pixels between the left edge of the text and the left edge of the text box.

Bottom Sets the space in pixels between the bottom of the text and the bottom edge of the text box.

Right Sets the space in pixels between the right edge of the text and the right edge of the text box.

SET WORD WRAPPING WIDTH TO

If checked, this box specifies that the PopUp text box should be no wider than the number of pixels indicated in the box below. If the PopUp text is wider than this value, it will automatically wrap and form another line inside of the PopUp text box.

SHOW BORDER

If checked, the PopUp text box will be surrounded by a border.

Border Color Allows you to change the color of the PopUp text box. Clicking on it brings up the Color Properties dialog (refer to "Color Properties" on page A-65).

FONT

This button will launch a Font Properties dialog, where you can change the font of the PopUp text for the graph. For more information about this dialog, refer to "Font Properties" on page A-64.

NOTES

This pane controls the format of dynamically created (not static) PopChart Notes in the currently selected graph. For more information, refer to the section entitled "PopChart Notes" on page 1-15.

LAYOUT NOTES

This sets how PopChart Server will try to lay out your dynamically created PopChart Notes. The available options include: Default, Outside First, and Inside First.

JUSTIFICATION

Changes the justification of the text in the Note. Settings include: left, center, and right. The effects of this setting will only be seen when there are multiple lines of Notes.

MARGIN VALUES

These values set the margin between the actual Note text and the edge of the Note box.

Top Sets the space in pixels between the top of the text and the top edge of the text box.

Left Sets the space in pixels between the left edge of the text and the left edge of the text box.

Bottom Sets the space in pixels between the bottom of the text and the bottom edge of the text box.

Right Sets the space in pixels between the right edge of the text and the right edge of the text box.

SET WORD WRAPPING WIDTH TO

If checked, this box specifies that the Note box should be no wider than the number of pixels indicated in the box below. If the Note box is wider than this value, it will automatically wrap and form another line inside of the Note box.

SHOW BORDER

If checked, the PopUp text box will be surrounded by a border.

Border Color Allows you to change the color of the PopUp text box. Clicking on it brings up the Color Properties dialog (refer to "Color Properties" on page A-65).

FONT

This button will launch a Font Properties dialog, where you can change the font of the PopUp text for the graph. For more information about this dialog, refer to "Font Properties" on page A-64.

LEADER LINE WIDTH

The width of the leader line. The leader line is the line that originates from the data item and leads to the Note box.

LEADER COLOR

This color button allows you to set the color of the leader line. Clicking on it brings up the Color Properties dialog (refer to "Color Properties" on page A-65).

MONTH/DAY NAMES (TIME PLOT)

This dialog allows you to change the names used for months and weekdays within a graph. For example, if you want your month and day names to be abbreviated, you could abbreviate them all in this dialog pane. Also, you could change these names to another language.

3D SETTINGS (AREA, BAR, LINE, PARETO, PIE)

This pane controls 3D settings for the currently selected graph.

SHOW 3D GRAPH (LINE BAR)

This option is available only for Line Bar graphs. If checked, the graph will appear as a three-dimensional graph. Otherwise, it will be two-dimensional. Note that this option will always make the bars three dimensional. However, Show 3D Line must be checked for the line to appear three dimensional.

SHOW 3D BARS / LINES / PIE / AREA

If checked, the indicated feature (bar, line, pie, or area) will appear 3D, as will the background grid. However, this will have no affect on a Line Bar graph unless Show 3D Graph is enabled.

X OFFSET %

Changes the offset, as a percentage of the category width, of the *x* dimension of the bar, area, or line. The offset affects the angle from which the user appears to be looking at the graph. Values can range from *0* to *40*. This setting does not apply to Pie graphs.

Y OFFSET %

Changes the offset, as a percentage of the category width, of the *y* dimension of the bar, pie, area, or line. The offset affects the angle from which the user appears to be looking at the graph. Values can range from *0* to *40*.

DEPTH %

Changes the depth, as a percentage of the category width, of the bar, line, area, or pie. This is essentially the *z* dimension of the graph.

COLORS

This pane controls color settings for the currently selected graph.

SERIES COLORS

This allows you to change the color settings for the data series.

Select a Color Theme Allows you to select from several pre-set color themes. Selecting a new color theme will override any color changes that you have already made for bars, lines, areas, or pie wedges. It will not affect background, border, or font colors.

Color themes are set in the config/PCColors.xml file. Refer to Chapter 11, "Color Themes," in the *PopChart Server Reference* manual for details on how to add color themes to this file.

Colors These 16 color buttons represent the colors of the bars, lines, pie wedges, or areas within the graph. The first color corresponds to the first data series, the second to the second series, and so on. You can set colors for up to 16 data series before the graph will start reusing colors. You can change each color with the Color Properties dialog that comes up when you click on a color button (refer to "Color Properties" on page A-65).

To set colors for series beyond the first 16 series, change the color button for that series in the Series Properties dialog.

GRID AREA BACKGROUND COLORS

This allows you to change the background color of the graph's grid area.

By default, the transparent box is checked, meaning that the area will have no background color. If you uncheck this box, the area will have the background color shown in the color button to the right of the check box. You can change this color with the Color Properties dialog that comes up when you click on a color button (refer to "Color Properties" on page A-65). The image on the far right indicates the areas that each option changes. Note that Side and Bottom affect only 3D graphs.

ADVANCED

This controls advanced properties for the graph object. For more information, refer to the section entitled “Advanced Object Properties” on page A-66.

GAUGE PROPERTIES

This dialog allows you to set the formatting of and data within your Gauge. For more information about Gauges, refer to "Gauges" on page 13-35 of the *PopChart Server Reference* manual.

GENERAL

In this dialog pane, you can set the data value and color ranges for your Gauge. For more information about Gauges, refer to "Gauges" on page 13-35 of the *PopChart Server Reference* manual.

VALUE
This sets the value of the Gauge.

MINIMUM
This sets the minimum value of the Gauge. It is used when calculating the data value as a percentage. It also sets the extreme right value of the bar in a bar gauge. It does not affect any formatting in a Bulb gauges.

MAXIMUM
This sets the maximum value of the Gauge. It is used when calculating the data value as a percentage. It also sets the extreme left value of the bar in a bar gauge. It does not apply to Bulb gauges.

BACKGROUND COLOR
This allows you to change the background color of the Gauge.

SHOW BORDER
This allows you to toggle the 3D border of the Gauge.

SHOW VALUE AS PERCENTAGE
If this is checked the Gauge's value will be shown as a percentage of the difference between the minimum and maximum values.

SHOW COLOR RANGE
If this is checked, small color bars along the top and bottom scales of the gauge, indicating the Gauge's color ranges. (LED Bar and Filled Bar only)

COLOR RANGES
This box displays the color ranges currently being used in the graph. It shows the name of the range, the minimum and maximum value of the range, and the color of the range.

ADD ROW

When you click on this button, you will bring up a dialog that allows you to add a new color range to the Gauge. you will be able to select the name of the color range (which can be completely arbitrary), the minimum and maximum values of the range, and the color of the range.

DELETE ROW

This will delete the currently selected color range from the Gauge.

SCALE

This dialog pane allows you to change scale properties for Gauges.

SHOW SCALE (BAR GAUGES ONLY)

This allows you to toggle whether or not the scale will be drawn (Bar Gauges Only).

COLOR (BAR GAUGES ONLY)

This allows you to change the color of the scale.

BACKGROUND COLOR (BAR GAUGES ONLY)

This allows you to change the background color of the bar and scale (i.e. the color that will be drawn when there is no color range).

SIZE MANUALLY

This allows you to manually set the maximum size of the bar or bulb in pixels.

SHOW MAJOR TICKS (BAR GAUGES ONLY)

This allows you to turn major tick marks on or off.

Number Sets the number of major tick marks.

Color Sets the color of the tick marks. Clicking on this button brings up the Color Properties dialog (refer to "Color Properties" on page A-65).

SHOW MINOR TICKS (BAR GAUGES ONLY)

This allows you to turn minor tick marks on or off.

Number Sets the number of minor tick marks.

Color Sets the color of the tick marks. Clicking on this button brings up the Color Properties dialog (refer to "Color Properties" on page A-65).

LABELS

This dialog pane allows you to change the gauge label (appears to the left or on the top) and value label (appears to the right or on the bottom) of your Gauge.

SHOW GAUGE LABEL

This allows you to turn the Gauge label on or off.

Position Sets the alignment of the gauge label. the available options include: Center, Left, Right, Top, and Bottom (options will depend on value of Show Labels On).

Text Sets the gauge label text. Be careful not to make this too large, or the Gauge will have difficulty displaying it.

Font Sets the gauge label font. This button will launch a Font Properties dialog. For more information about this dialog, refer to "Font Properties" on page A-64.

SHOW VALUE LABEL

This allows you to turn the value label on or off.

Position Sets the alignment of the gauge label. the available options include: Center, Left, Right, Top, and Bottom (options will depend on value of Show Labels On).

Font Sets the value label font. This button will launch a Font Properties dialog. For more information about this dialog, refer to "Font Properties" on page A-64.

SHOW LABELS ON

This allows you to change where labels will be displayed. Options include Top and Bottom, and Left and Right.

SIZE LABELS

Allows you to size the area that the labels will be drawn in.

AUTOMATICALLY

The label area will be calculated automatically.

MANUALLY

The label area will use the values specified below.

Gauge The total width or height (depending on the Show Labels On value), in pixels, of the Gauge label.

Value The total width or height (depending on the Show Labels On value), in pixels, of the value label.

DRILL-DOWN

This pane controls options for the drill-down effect of the currently selected Gauge. For information about Drill-down effects, refer to "Drill-down Effects" on page 7-14 of the *PopChart Server User Guide*.

DRILL-DOWN URL

This is the URL (internet address) of the web page or resource to which the user will be forwarded when he or she clicks on a data item. You can also use JavaScript instead of a URL.

METHOD FOR HIGHLIGHTING NON-TEXT ITEMS

This option changes the method for highlighting the gauge for drill-down. You can choose from the following options:

OutLine A single line outlines the drill-down area as the mouse passes over it.

Bold OutLine A double line outlines the drill-down area as the mouse passes over it.

COLOR FOR HIGHLIGHTING

When drill-down is enabled for this gauge, the color of this gauge will change to the color shown in the color button. To change this color, click on the button. This will bring up the will bring up the Color Properties dialog (refer to "Color Properties" on page A-65), from which you can select a color.

POPUP

This pane controls the format of PopUp text in the currently selected Gauge. PopUp text will appear as a user rolls his or her mouse over a gauge. For more information about PopUp text, refer to "PopUp Text" on page 7-12 of the *PopChart Server User Guide*.

JUSTIFICATION

Changes the justification of the PopUp text. Settings include: left, center, and right. The effects of this setting will only be seen when there are multiple lines of PopUp text.

MARGIN VALUES

These values set the margin between the actual PopUp text and the edge of the PopUp text box.

Top Sets the space in pixels between the top of the text and the top edge of the text box.

Left Sets the space in pixels between the left edge of the text and the left edge of the text box.

Bottom Sets the space in pixels between the bottom of the text and the bottom edge of the text box.

Right Sets the space in pixels between the right edge of the text and the right edge of the text box.

SET WORD WRAPPING WIDTH TO

If checked, this box specifies that the PopUp text box should be no wider than the number of pixels indicated in the box below. If the PopUp text is wider than this value, it will automatically wrap and form another line inside of the PopUp text box.

SHOW BORDER

If checked, the PopUp text box will be surrounded by a border.

Border Color Allows you to change the color of the PopUp text box. Clicking on it brings up the Color Properties dialog (refer to “Color Properties” on page A-65).

FONT

This button will launch a Font Properties dialog, where you can change the font of the PopUp text for the graph. For more information about this dialog, refer to “Font Properties” on page A-64.

ADVANCED

This controls advanced properties for the gauge object. For more information, refer to the section entitled “Advanced Object Properties” on page A-66.

VALUE SCALE PROPERTIES

Note: *This dialog is not applicable to and therefore unavailable for Pie graphs.*

This dialog controls scale properties along the value scale of certain graphs. You will see this dialog when you change the properties for the following scales:

Graph	Scale(s)
Vertical Bar, Line, Area, Stock	Left Scale Properties or Right Scale Properties (depending on the position of the scale).
Horizontal Bar	Bottom Scale Properties.
Line Bar Combo, Pareto	Line Scale Properties and Bar Scale Properties (Line Bar graphs contain both a left and right scale—see "Line Bar Combo Graphs" on page 13-12 of the *PopChart Server Reference* manual).
X-Y Plot	Left Scale Properties or Right Scale Properties (depending on the position of the scale), and Bottom Scale Properties (both scales are considered to be value scales).
Dual Y Combo	Left Scale Properties and Right Scale Properties.
Radar	Value Scale and Category Scale.

These dialogs can be accessed by selecting a graph and then selecting the appropriately named dialog under the Properties menu. If you are looking to modify the other scale(s) on a graph, refer to "Bottom Scale Properties" on page A-43.

SCALE

This pane controls the position of the scale as well as the range of its values.

POSITION SCALE

You can place the scale in one of the following positions (not applicable for Horizontal Bar graphs or the bottom scale of X-Y Plot graphs):

On Left The scale is to the left of the graph. In radar graphs, this means that the scale labels will be on the left of the scale.

On Right The scale is to the right of the graph. In radar graphs, this means that the scale labels will be on the right of the scale.

Line Scale Left, Bar Scale Right This option will appear on the line scale dialog for Line Bar Combo graphs only. It sets the line scale to the left of the graph and the bar scale is to the right of it.

Bar Scale Left, Line Scale Right This option will appear on the line scale dialog for Line Bar Combo graphs only. It sets the bar scale to the left of the graph and the line scale is to the right of it.

SYNC LINE AND BAR SCALES (LINE BAR ONLY)

This option is available for bar scale of Line Bar Combo graphs only. If selected, the bar scale will use the same scale values as the line scale.

HIDE THIS SCALE (LINE BAR ONLY)

This option is available for bar scale of Line Bar Combo graphs only when Sync Line and Bar Scales is selected. If selected, the bar scale will not be displayed.

SET SCALE VALUES

There are two available settings for this option: Manually and Automatically. Depending on your selection, you will have different options available at the bottom of this dialog pane.

OPTIONS (MANUALLY)

This setting allows you to manually determine the range of the scale. These settings will be used regardless of the data values, meaning some bars, lines, and areas may be clipped.

Minimum Value The lowest data value to be shown along the y-axis.

Maximum Value The highest data value to be shown along the y-axis.

Number of Major Ticks The number of major tick marks in the graph.

Number of Minor Ticks The number of minor tick marks that occur between each major tick mark.

OPTIONS (AUTOMATICALLY)

This setting tells PopChart Builder to automatically scale the graph using the following guidelines:

Maximum Major Ticks The maximum number of major tick marks that will appear in the graph. The actual number of increments used may be less than this value.

Number of Minor Ticks The number of small tick marks that should appear between each major tick.

Percent Over Max Value The amount of space between the maximum data value and the top of the scale as a percentage of the maximum data value.

Set Base of Scale to Zero If checked, the bottom of the scale will always be set to 0, regardless of the data values.

Percent Below Minimum Value The amount of space between the minimum data value and the bottom of the scale as a percentage of the maximum data value.

USE LOGARITHMIC SCALES

Checking this box sets the scale type to logarithmic.

TICK MARKS

This pane allows you to control the appearance of tick marks in the currently selected graph

SHOW MAJOR TICKS

If checked, a major tick mark will delimit each major increment. You can set the following options for this mark:

POSITION

You can position major tick marks in the following locations:

OUTSIDE The mark will appear outside of the graph's grid area.

INSIDE The mark will appear inside of the graph's grid area.

CROSS The mark will appear both outside and inside of the graph area so that it looks like a cross.

SIZE

The mark can appear in one of three sizes: Small, Medium, or Large.

COLOR

The color button will launch a Color Properties dialog, where you can change the color used for major tick marks. For more information about this dialog, refer to "Color Properties" on page A-65.

SHOW MINOR TICKS

If checked, a minor tick mark will delimit each minor increment. You can set the following options for this mark:

POSITION

You can position minor tick marks in the following locations:

OUTSIDE The mark will appear outside of the graph's grid area.

INSIDE The mark will appear inside of the graph's grid area.

CROSS The mark will appear both outside and inside of the graph area so that it looks like a cross.

SIZE

The mark can appear in one of three sizes: Small, Medium, or Large. Note that minor tick mark sizes are relatively smaller than major tick mark sizes: a minor tick mark will appear smaller than a major tick marks of the same size.

COLOR

The color button will launch a Color Properties dialog, where you can change the color used for minor tick marks. For more information about this dialog, refer to "Color Properties" on page A-65.

LABEL

This dialog pane allows you to change the settings for scale labels.

DISPLAY SCALE LABELS

If checked, scale labels will appear to the left (or right, if the scale is on the right) of each major tick mark.

NUMBER FORMAT

These settings affect the numerical format of the graph's scale labels.

DISPLAY LABEL AS

A label can be displayed in one of several different formats:

General Only the number itself will be shown.

Currency The number will be shown with the PopChart's currency symbol. For example, *5* might be displayed as *$5*. See also: "Currency Symbol."

Percentage A percentage sign *%* will follow the number.

NEGATIVE VALUES

If the data value is negative, the graph will use this setting to determine how to display it. It can be displayed either as a minus sign -, in parenthesis *( )*, or as an absolute value (no negative value indicator).

ALWAYS SHOW DECIMAL PLACES

If this is checked, the number will always be shown as a decimal, regardless of whether it was entered into the Data Editor as such. It will be shown to as many places as indicated in the Decimal Places property.

DECIMAL PLACES

The number of decimal places to show. Data values that have more decimal places will be rounded to the nearest decimal at this point.

SHOW THOUSANDS SEPARATOR

Specifies whether or not to show a thousands separator. For example, if a comma is used as the thousands separator (see "Thousands"), one million will be shown as *1,000,000* when this box is checked. Otherwise, one million would be shown as *1000000*.

SCALE LABEL ABBREVIATION

These settings control how the scale labels will be abbreviated.

AUTO ABBREVIATE

PopChart will automatically abbreviate the scale labels. It will usually abbreviate it so that there are no more than three digits in the scale label. For example, *1,000* becomes *1k*, while *56,500,000* becomes *56.5M*.

MANUALLY ABBREVIATE

You decide how the labels should be abbreviated.

Display Value As This setting changes the how the numbers will be displayed. It determines what number the scale labels will be relative to. If set to Unchanged, they will be displayed normally. However, if set to Thousands, *560* would be displayed as *.56*, since it is 56/100 of one thousand. Likewise, *4,125,375* would appear as *4.125* if it were displayed as Millions. If set to Percentage, *.08* would appear as *8*, or as 8% if Display Label As is also set to Percentage. Other options include Billions and Trillions.

Show Abbreviation If this is checked, all numbers will be followed by an abbreviation to indicate what the numbers are relative to. For example, *10* displayed as Thousands with an abbreviation might be *.01k*. When you are displaying a value as a Percentage and check this box, the number will always be followed by a percentage *%* sign, regardless of what Display Label As is set to For information on setting the abbreviation, refer to "Abbreviation Characters" on page A-21.

ROTATE LABELS

When checked, the scale labels will be rotated by the value shown in the text box to the right.

FONT

Specifies font characteristics for the left or right scale. For more information, refer to the section entitled "Font Properties" on page A-64.

BOTTOM SCALE PROPERTIES

Note: *This dialog is not applicable to and therefore unavailable for Pie graphs.*

This dialog controls scale properties along the x-axis (or y-axis in the case of Horizontal Bar graphs) of the currently selected graph object. It is accessed by selecting a graph amd then selecting Properties > Bottom Scale Properties (or Left Scale Properties for Horizontal Bar graphs).

X-Y Plot and Horizontal Bar graphs use the Value Scale Properties dialog for what appears to be the bottom scale. Refer to "Value Scale Properties" on page A-38 for information on modifying the bottom scale for these graph types.

This scale is also known as the "Category Scale," since each discrete point along it represents a category of data.

TICK MARKS

This pane controls tick marks for the currently selected graph's bottom scale.

SHOW TICK MARKS

If checked, tick marks will be shown between each scale label along the bottom of the graph. You can set the following options for these marks:

POSITION

You can position tick marks in the following locations:

Outside The mark will appear outside of the graph's grid area.

Inside The mark will appear inside of the graph's grid area.

Cross The mark will appear both outside and inside of the graph area so that it looks like a cross.

SIZE

The mark can appear in one of three sizes: Small, Medium, or Large.

COLOR

The color button will launch a Color Properties dialog, where you can change the color used for bottom scale tick marks. For more information about this dialog, refer to "Color Properties" on page A-65.

LABEL

This dialog pane allows you to change the settings for scale labels.

DISPLAY SCALE LABELS

If checked, scale labels will be displayed for each category that is being graphed.

LIMIT LABEL CHARACTER LENGTH

Limits the character length of each scale (category) label to the specified number. If the label is longer, it will truncate it and add a period on the end. This period counts as part of the character length.

MAX LENGTH HORIZONTAL TEXT

Sets the maximum number of characters in the category label when it is not rotated.

MAX LENGTH ROTATED TEXT

Sets the maximum number of characters in the category label when it is rotated.

FIRST LABEL TO BE DISPLAYED

This specifies the number of the first bottom scale label that will actually be shown.

PERFORM THE FOLLOWING ADJUSTMENTS

Allows you to select how the following category label adjustments are applied. The options are As Needed and Always. For a description of how these options behave, refer to "Scale Label Adjustments" on page 1-22.

WRAP TEXT TO MAX NUMBER OF LINES When selected, the text in the scale label will be wrapped to the specified number of lines (if needed).

SHRINK FONT TO This rule applies only when As Needed has been selected. If this rule is applied, PopChart will attempt to shrink the font of the scale labels down to the font point size specified in the box to the right of this option.

STAGGER LABELS This rule applies only when As Needed has been selected. If this rule is applied, PopChart will attempt to stagger the labels so that every other one appears on an alternate level.

ROTATE LABELS If this rule is applied, PopChart will rotate the scale labels by the specified number of degrees. This will usually significantly decrease the vertical size of the graph, unless Limit Label Character Length has been enabled or Keep Text and Ticks Within Graph Bounds has been unchecked in the Graph Properties > General dialog pane (refer to "Keep Text and Ticks Within Graph Bounds" on page A-24).

SKIP X LABELS AT A TIME This rule specifies that a certain number of labels should be skipped altogether. The bar, line, area, or plot point will still be shown for that category, but the scale label will not. The graph will use the number in the box to determine the increment between each shown bottom label. For example, if the value is *1*, it will display every other label. If the value is *2*, it will display every third label. If the value is *0*, it will skip nothing.

FONT

Specifies font characteristics for the bottom scale. For more information, refer to the section entitled "Font Properties" on page A-64.

CATEGORY SCALE

Note: *This scale only exists in Radar graphs.*

This dialog controls the category scale for a radar graph. The category scales occur at each compass point in the radar graph.

LABEL

This dialog pane allows you to change the settings for category scale labels.

DISPLAY SCALE LABELS

If checked, scale labels will be displayed for each category that is being graphed.

LIMIT LABEL CHARACTER LENGTH

Limits the character length of each scale (category) label to the specified number. If the label is longer, it will truncate it and add a period on the end. This period counts as part of the character length.

FIRST LABEL TO BE DISPLAYED

This specifies the number of the first bottom scale label that will actually be shown.

WRAP TEXT IF OVER

When selected, the text in the scale label will be wrapped at the specified number of pixels.

FONT

Specifies font characteristics for the bottom scale. For more information, refer to the section entitled "Font Properties" on page A-64.

DATA LABEL PROPERTIES

This dialog controls the appearance of data labels. Data labels are boxes of text that usually appear above a data item. The dialog can be selected by double-clicking on any data label, or by selecting graph and then selecting Properties > Data Label Properties.

GENERAL

This dialog pane allows you to specify general properties for your data labels.

SHOW DATA LABELS

Specifies when the graph will display data labels. The available options are:

Never The graph will never display data labels.

Always The graph will always display data labels.

On Rollover The graph will display data labels only when a user "rolls over" the corresponding bar, line, or wedge with their mouse pointer.

Note: *When you use roll-over data labels, the letters RO will appear in the data label boxes while you are in the PopChart Builder interface. This is to indicate that the boxes will only appear as the user rolls his or her mouse over the data item.*

POSITION

Sets the location of the graph's data labels. Depending on the graph type, different options will be available. The image to the right of this setting indicates the effect of the various options. These options include the following:

Above Line / Point The data label will appear above the line or data item.

Below Line / Point The data label will appear below the line or data item.

Outside Top / Right The data label will appear above the bar (or to the right for a horizontal bar).

Inside Top / Right The data label will appear just below the top of the bar (or just to the left of the right end of a horizontal bar).

Inside Bottom / Left The data label will appear at the bottom of the bar (or at the left end of a horizontal bar).

Out w/Leader on Sides The data label will appear just below the top of the bar (or just to the left of the right end of a horizontal bar).

Out w/ Leader The data label will appear at the bottom of the bar (or at the left end of a horizontal bar).

Out The data label will appear just below the top of the bar (or just to the left of the right end of a horizontal bar).

Inside The data label will appear at the bottom of the bar (or at the left end of a horizontal bar).

DATA LABEL FORMAT (ALL GRAPHS EXCEPT PIE)

This controls how the text in your data labels will appear. Your data format string can include regular text, such as a currency symbol or percent character, or it can include any of the data-specific macros listed in the Value Keywords pull-down menu.

For information about the data label format string and macros, refer to "Custom Data Label Formatting" on page 1-12.

VALUE KEYWORDS (ALL GRAPHS EXCEPT PIE)

This is a list of macros that can be used in the data label format string. You can insert any of these macros into the data label format string by selecting the appropriate macro and clicking on the Insert button. A complete list of these macros is available in Table 1.1 on page 1-13.

SHOW BORDER

Specifies whether or not the data label should have a border. You can control the color of this border by clicking on the Color button next to it, which will launch a Color Properties dialog (refer to "Color Properties" on page A-65).

MAXIMUM WIDTH (ALL GRAPHS EXCEPT PIE)

The maximum width of the data label. If the data label exceeds this width, it will be wrapped.

SHOW ONE DATA LABEL FOR EACH CATEGORY (AREA, STACKED BAR)

In an area or stacked bar, you can either show a data label for each data segment, or you can show a data label for the entire stacked bar or area. Check this box if you want to show just one data label for the entire stacked bar or area.

SHOW VALUE AS (PIE GRAPHS ONLY)

This setting affects how the data value is shown. The options available will depend on the graph type:

Actual Value The default setting, this means that the value will appear just as it was entered into the graph's spreadsheet.

Percentage of Total The graph will show each data value as a percentage of the sum of all data values in the entire graph.

SHOW SERIES TEXT (PIE GRAPHS ONLY)

This setting allows you to add the series label to the data label for each wedge in a pie graph. The image above this setting, which changes as you make changes, shows you how the graph will appear with the currently selected setting. Available options include:

Value Only This is the default setting. Only the data value will be in the data label.

Name Only Only the series label will be in the data label.

Name and Value The data value and the series label will both be in the data label.

Name Outside, Value Inside The series label will appear outside of the pie, while the value will appear inside of it.

Name above, value on graph (Roll-over labels only) The series label will appear above the pie, while the value will appear as specified in the Position setting.

Name below, value on graph (Roll-over labels only) The series label will appear below the pie, while the value will appear as specified in the Position setting.

Name and value above (Roll-over labels only) Both the series label and data value will appear above the pie.

Name and value below (Roll-over labels only) Both the series label and data value will appear below the pie.

NUMBER FORMAT (PIE GRAPHS ONLY)

These settings affect the numerical format of the graph's data labels.

DISPLAY VALUE AS

This allows you to specify how a data label will be displayed in a pie graph. The options are: General, Currency, and Percentage.

NEGATIVE VALUES

If the data value is negative, the graph will use this setting to determine how to display it. It can be displayed either as a minus sign -, in parenthesis ( ), or as an absolute value (no negative value indicator).

ALWAYS SHOW DECIMAL PLACES

If this is checked, the number will always be shown as a decimal, regardless of whether it was entered into the spreadsheet as such. It will be shown to as many places as indicated in the Decimal Places property.

DECIMAL PLACES

The number of decimal places to show. Data values that have more decimal places will be rounded to the nearest decimal at this point.

SHOW THOUSANDS SEPARATOR

Specifies whether or not to show a thousands separator. For example, if a comma is used as the thousands separator (see "Thousands"), one million will be shown as *1,000,000* when this box is checked. Otherwise, one million would be shown as *1000000*.

FONT

Specifies font characteristics for data labels. For more information, refer to the section entitled "Font Properties" on page A-64.

VALUE FORMAT (ALL GRAPHS EXCEPT PIE)

This dialog pane controls the format of the data value in the data label.

NUMERIC FORMAT

This setting affects the numerical format of the value returned by any macros that return values (e.g. %_VALUE).

NEGATIVE VALUES

If the data value is negative, the graph will use this setting to determine how to display it. It can be displayed either as a minus sign -, in parenthesis *( )*, or as an absolute value (no negative value indicator).

ALWAYS SHOW DECIMAL PLACES

If this is checked, the number will always be shown as a decimal, regardless of whether it was entered into the spreadsheet as such. It will be shown to as many places as indicated in the Decimal Places property.

DECIMAL PLACES

The number of decimal places to show. Data values that have more decimal places will be rounded to the nearest decimal at this point.

SHOW THOUSANDS SEPARATOR

Specifies whether or not to show a thousands separator. For example, if a comma is used as the thousands separator (see "Thousands"), one million will be shown as *1,000,000* when this box is checked. Otherwise, one million would be shown as *1000000*.

PERCENTAGE FORMAT

These setting affects the numerical format of the value returned by the `%_PERCENT_OF_CATEGORY` and `%_PERCENT_OF_TOTAL` data label macros.

ALWAYS SHOW DECIMAL PLACES

If this is checked, the percentage will always be shown to number of decimal places indicated in the Decimal Places property.

DECIMAL PLACES

The number of decimal places to show. Percentages that have more decimal places will be rounded to the nearest decimal at this point.

SERIES PROPERTIES

This dialog allows you to control properties that are specific to the currently selected series of data. To access this dialog, select a graph and then select Properties > Series Properties.

SELECTED SERIES

This setting is located in the upper right hand corner of the Series Properties dialog window. It shows the name of the currently selected data series. You can use its pull-down menu to change the currently selected series. This is especially useful for copying and pasting information between series.

GENERAL

This pane controls general options for the series such as the series color.

Note: *This pane will not appear if you are using a bar chart with the Single Series Multicolor Mode (Bar) enabled and there is only one series of data.*

COLOR

The color button will launch a Color Properties dialog, where you can change the color used for the series (bars, lines, pie wedges, etc.). For more information about this dialog, refer to "Color Properties" on page A-65.

LINE COLOR (PARETO ONLY)

The color button will launch a Color Properties dialog, where you can change the color used for the line in a Pareto graph. For more information about this dialog, refer to "Color Properties" on page A-65.

DISPLAY SERIES USING (LINE, X-Y PLOT, TIME PLOT, RADAR)

This option is only available for line or x-y plot elements in a graph. This lets you change how the series is displayed.

Line IYou can add a line for this series by checking the Line box. You can change the thickness of the series line by selecting a new Width from the pull-down menu to the right. You can also change the symbol color by clicking on the Color button below this setting.

Symbols You can add a line for this series by checking the Symbol box. You can change the symbol (or add a symbol to each plot point in the series when you

are using a Line, X-Y, or Time Plot graph. The Type pull-down menu on the right gives you a variety of options, including squares, triangles, circles, crosses, or no symbol at all. You can also change the symbol color by clicking on the Color button below this setting.

Bubble IIf the graph allows for a bubble, you can add a bubble for this series by checking the Bubble box. You can change the look of your bubble by selecting a new Type from the pull-down menu to the right. the options include 3D, Fill only, Outline only, and Outline and Fill. You can change the bubble fill color by clicking on the Color button below this setting. You can also change the color of the outline by clicking on the Outline color button below the pull-down menu.

Filled Area If a graph allows for a fill area, you can add a fill area for the series by checking the Filled area box. A fill area will appear underneath the line for the series. You can change the color of the filled area by clicking on the Color button below this setting.

MOVING UP INDICATOR (CANDLESTICK ONLY)

The moving up indicator in a Candlestick graph appears for data items whose value has risen for the day (the data item's close value was higher than its open value). You can change the colors for moving up indicators by clicking on the Fill Color and Outline Color buttons. This launches a Color Properties dialog, where you can change the color used for the fill or outline color.

MOVING DOWN INDICATOR (CANDLESTICK ONLY)

The moving down indicator in a Candlestick graph appears for data items whose value has fallen for the day (the data item's close value was lower than its open value). You can change the colors for moving up indicators by clicking on the Fill Color and Outline Color buttons. This launches a Color Properties dialog, where you can change the color used for the fill or outline color.

COLOR IF MOVING UP (HIGH-LOW/OPEN-CLOSE ONLY)

The moving up indicator in a High-Low/Open-Close graph appears for data items whose value has risen for the day (the data item's close value was higher than its open value). You can change the colors for moving up indicators by clicking on this file. This launches a Color Properties dialog, where you can change the color used for the stock bar.

COLOR IF MOVING DOWN (HIGH-LOW/OPEN-CLOSE ONLY)

The moving down indicator in a High-Low/Open-Close graph appears for data items whose value has fallen for the day (the data item's close value was lower than its open value). You can change the color for moving up indicators by clicking on this button. This launches a Color Properties dialog, where you can change the color used for the stock bar.

DATA LABELS

This dialog pane allows you to change the data label format string for data labels in this series. This overrides any settings from the Data Label Properties dialog.

DATA LABEL FORMAT

This controls how the text in your data labels will appear. Your data format string can include regular text, such as a currency symbol or percent character, or it can include any of the data-specific macros listed in the Value Keywords pull-down menu.

For information about the data label format string and macros, refer to "Custom Data Label Formatting" on page 1-12.

VALUE KEYWORDS

This is a list of macros that can be used in the data label format string. You can insert any of these macros into the data label format string by selecting the appropriate macro and clicking on the Insert button. A complete list of these macros is available in Table 1.1 on page 1-13.

DRILL-DOWN URLS

This pane allows you to set the drill-down destination for each item in the currently selected series. A drill-down destination can be either a URL or JavaScript command (e.g. `javascript:myfunction()`).

Note: *Because Drill-down is usually context sensitive, you probably don't want to set PopUp text in an appearance file if you will be using that appearance file for dynamic data.*

This pane consists of a table that lists every item in the series along with its drill-down destination. This table contains the following fields:

NAME The name of the item whose drill-down URL you are changing. This corresponds to the category name for that item. This value can be changed in the Data Editor.

VALUE The data value of the item. This value can be changed in the Data Editor.

DRILL-DOWN URL This is the URL (internet address) of the web page or resource to which the user will be forwarded when he or she clicks on the data item. You can also use JavaScript instead of a URL. If you have set a global drill-down URL for the graph in the Graph Properties > Drill-down dialog, the value you set here will replace the global setting.

POPUP TEXT

This pane allows you to set PopUp text for each item in the currently selected series.

Note: *Because PopUp text is usually context sensitive, you probably don't want to set PopUp text in an appearance file if you will be using that appearance file for dynamic data.*

This pane consists of a table that lists every item in the series, along with its PopUp text string. This table contains the following fields:

NAME The name of the item whose PopUp text you are changing. This corresponds to the category name for that item. This value can be changed in the Data Editor.

VALUE The data value of the item. This value can be changed in the Data Editor.

POPUP TEXT This is the PopUp text string that will be displayed as the user moves his or her mouse over the currently selected item. It can be edited directly in this pane.

NOTE TEXT

This pane allows you to set PopChart Notes for each item in the currently selected series.

Note: *Because Notes are usually context sensitive, you probably don't want to set a Note in an appearance file if you will be using that appearance file for dynamic data.The only exception to this is if you are creating a Static Note box, as described in "Using Static PopChart Notes" on page 1-17.*

This pane consists of a table that lists every item in the series, along with its Note. This table contains the following fields:

NAME The name of the item whose Note you are changing. This corresponds to the category name for that item. This value can be changed in the Data Editor.

VALUE The data value of the item. This value can be changed in the Data Editor.

NOTE This is the Note that will be attached to the indicated data item. It can be edited directly in this pane.

LEGEND PROPERTIES

This dialog controls settings for the currently selected legend object. To access this dialog, select a legend and then select Properties > Legend Properties.

GENERAL

This dialog pane controls general options for the formatting of a legend.

LAYOUT ITEMS

This option allows you to control the order by which series names are listed in the legend. For example, when this value is set to Left to Right, the second series name will be listed to the right of the first. When this value is set to Top to Bottom, the second series name will be listed below the first series name. If there is only one row or series of items in the legend, this setting has no effect.

GROW VERTICALLY IF NEEDED

If the legend cannot display all of the legend items within its bounds, this setting allows PopChart to expand the legend to the height specified on the right. If the legend does not need to be expanded all the way to this height to fit the legend items, it will not be expanded. The expansion will take place before PopChart Server attempts to apply the Minimum Font Size and Truncate Down to X Characters settings.

GROW HORIZONTALLY IF NEEDED

If the legend cannot display all of the legend items within its bounds, this setting allows PopChart to expand the legend to the width specified on the right. If the legend does not need to be expanded all the way to this width to fit the legend items, it will not be expanded. The expansion will take place before PopChart Server attempts to apply the Minimum Font Size and Truncate Down to X Characters settings.

PREFERENCES

These options control how the legend is formatted.

SET NUMBER OF COLUMNS TO

This manually sets the number of columns that should be in the legend. This number will only be overridden when there is not enough space (after resizing and other adjustments) to display the legend.

MINIMUM FONT SIZE

This is the smallest size that the legend font can be shrunk to. If there is not enough room in the legend for all of the legend items, PopChart will shrink the legend font size to no smaller than this size in order to fit all of the items.

TRUNCATE DOWN TO X CHARACTERS

If, after shrinking the font size, there is still not enough room for all of the legend items, the series names will be truncated to the number of characters specified in this setting. This number includes a period. For example, if this value is 5, *January* would become *Janu.*.

LEGEND MARKER SIZE

Controls the size of the legend marker. The legend marker is the small color box that appears to the left of the series name.

SCALE TO FONT

The size of the legend marker will be the same as the size of the font (i.e. the height of the legend marker is the height of the font).

SET TO

This allows you to manually set the width and height, in pixels, of the legend marker.

FONT

Specifies font characteristics for the legend object. You can also change the background color for the legend in the Font pane. For more information, refer to the section entitled "Font Properties" on page A-64.

BORDERS & SHADOW

This pane allows you to control border and shadow settings for the currently selected legend.

BORDER TYPE

Sets the legend border type. Available options include:

- **None**
- **Thin**
- **Regular**
- **Thick**
- **Double Thin**
- **Double - Thick Inside, Thin Outside**
- **Double - Thin Inside, Thick Outside**

BORDER COLOR

Sets the legend border color. For more information about this dialog, refer to "Color Properties" on page A-65.

SHADOW TYPE

Sets the legend shadow type. You can choose either None, or from six shadow depths.

SHADOW COLOR

Sets the legend shadow color. For more information about this dialog, refer to "Color Properties" on page A-65.

ADVANCED

This controls advanced properties for the legend object. For more information, refer to the section entitled "Advanced Object Properties" on page A-66.

TEXT BOX PROPERTIES

This dialog controls settings for the currently selected text box object. To access this dialog, select a text box and then select Properties > Text Box Properties.

GENERAL

This pane controls general settings for the currently selected text box, such as the actual text and the justification.

TEXT

The text that will go into the text box.

JUSTIFICATION

Changes the justification of the text inside the text box. Settings include Left, Center, and Right.

MARGIN VALUES

Sets the size of the margin between the text inside of the text box and the edge of the text box.

Note: *Margins on rotated text are relative to how the text is read in the text box.*

Top The margin, in pixels, between the top of the text and the top edge of the text box.

Left The margin, in pixels, between the left edge of the text and the left edge of the text box.

Bottom The margin, in pixels, between the bottom of the text and the bottom edge of the text box.

Right The margin, in pixels, between the right edge of the text and the right edge of the text box.

ROTATE TEXT

Allows you to rotate the currently selected text box.

None The text box will not be rotated.

Clockwise The text box will be rotated clockwise ninety degrees.

CounterClockwise The text box will be rotated counter-clockwise ninety degrees.

AUTO SIZE ADJUSTMENT

If the text in the text box is smaller than the text box and one of these options is set, the text box will shrink so that the text box is the same size as the text plus the margins. This is an especially useful setting for appearance files that will be used dynamically with PopChart Server Pro.

Shrink to Width The width of the text box will be shrunk to match the width of the text.

Shrink to Height The height of the text box will be shrunk to match the height of the text.

Max Width If Shrink to Width is checked, the text box will be no larger than the number of pixels specified in this box. Text will wrap to a new line if wider than this.

ONLY DISPLAY TEXTBOX AS A NOTE

If checked, PopChart Server will only display this text box when it is attached to a PopChart Note. For more information, refer to the section entitled "Attaching PopChart Notes to Text Boxes" on page 1-16.

FONT

Specifies font characteristics for the text box object. You can also change the background color for the text box in the Font pane. For more information, refer to the section entitled "Font Properties" on page A-64.

BORDERS & SHADOW

This pane allows you to control border and shadow settings for the currently selected text box.

BORDER TYPE

Sets the text box border type. Available options include:

- **None**
- **Thin**
- **Regular**
- **Thick**

- **Double Thin**
- **Double - Thick Inside, Thin Outside**
- **Double - Thin Inside, Thick Outside**

BORDER COLOR

Sets the text box border color. For more information about this dialog, refer to "Color Properties" on page A-65.

SHADOW TYPE

Sets the text box shadow type. You can choose either None, or from six shadow depths.

SHADOW COLOR

Sets the text box shadow color. For more information about this dialog, refer to "Color Properties" on page A-65.

ADVANCED

This controls advanced properties for the text box object. For more information, refer to the section entitled "Advanced Object Properties" on page A-66.

IMAGE PROPERTIES

This dialog controls the properties of images that you have imported into PopChart Builder.

GENERAL

This dialog pane controls general properties for your imported image.

TRANSPARENCY

You can the transparency of your image by sliding the transparency bar or entering a number. *100%* means that the object is solid, while *0%* means that the image is invisible. The image above the transparency bar will help indicate the effect of your setting.

PICTURE SIZE

This allows you to set the size of your imported image.

WIDTH

This is the width of your imported image.

HEIGHT

This is the height of your imported image.

CONSTRAIN PROPORTIONS

If this box is checked, PopChart Builder will maintain the aspect ration of your image when you change the width or height.

RESTORE TO DEFAULT SIZE

When you click on this button, PopChart Builder will restore the image to its original size.

BORDER

Controls the image border settings.

BORDER TYPE

Sets the image border type. Available options include:

- **None**
- **Thin**
- **Regular**
- **Thick**

- **Double Thin**
- **Double - Thin Inside, Thick Outside**
- **Double - Thick Inside, Thin Outside**

COLOR

Sets the project border color.

DRILL-DOWN

This pane controls options for the drill-down effect of the currently selected imported image. For information about Drill-down effects, refer to "Drill-down Effects" on page 7-14 of the *PopChart Server User Guide*.

DRILL-DOWN URL

This is the URL (internet address) of the web page or resource to which the user will be forwarded when he or she clicks on the image. You can also use JavaScript instead of a URL.

METHOD FOR HIGHLIGHTING

This option changes the method for highlighting the image when it has been enabled for drill-down effects. You can choose from the following options:

OutLine A single line outlines the drill-down area as the mouse passes over it.

Bold OutLine A double line outlines the drill-down area as the mouse passes over it.

COLOR FOR HIGHLIGHTING

When drill-down is enabled for an, the color of the border area around it will change to the color shown in the color button. To change this color, click on the button. This will bring up the will bring up the Color Properties dialog (refer to "Color Properties" on page A-65), from which you can select a color.

ADVANCED

This controls advanced properties for the bitmap object. For more information, refer to the section entitled "Advanced Object Properties" on page A-66.

FONT PROPERTIES

This dialog or dialog pane occurs frequently in PopChart Builder. Most dialogs allow you to change the following font properties:

FONT The font type. PopChart Builder automatically includes these types: TimesRoman, Helvetica, Courier, and Lucida. You can also use any custom fonts you have set.

FONT STYLE The font style. For each font type, you can choose the following styles: Regular, Italic, Bold, Bold Italic.

SIZE The font size.

TEXT COLOR Launches the Color Properties dialog, where you can change the font color. For more information about this dialog, refer to "Color Properties" on page A-65.

BACKGROUND COLOR Launches the Color Properties dialog, where you can change the background color for the font. For more information about this dialog, refer to "Color Properties" on page A-65. This option will not be available for Data Labels or Scale Labels.

TRANSPARENT BACKGROUND If checked, the background of the font will be transparent. This option will not be available for Data Labels, Scale Labels, or PopUp Text.

PREVIEW This box shows how the font will appear under the current settings.

COLOR PROPERTIES

This dialog allows you to modify the color of the currently selected item. You can select preset or recently used colors through the Swatches tab. You can customize the color using one of the middle three tabs. The text and graphics at the bottom of the dialog allow you to preview your new color.

If you want to make a color translucent or transparent, you can edit its alpha value in the Transparency tab. Setting the alpha value to 0 will make the color solid, while 255 will make the color invisible. Set the color somewhere in between for translucency. When a color is translucent, you will be able to see objects behind any item that uses that color.

ADVANCED OBJECT PROPERTIES

Each object in a appearance file has certain advanced properties that will not normally be changed by a user. These properties are usually only applicable for appearance files built for PopChart Server.

OBJECT TYPE

An object can be one of three types: Graph, Legend, or TextBox. You can not change this setting.

OBJECT NAME

If a project is going to be used with PopChart Server, each object inside of it should have a unique name. This name will be used for reference as you send your dynamic data to PopChart Server.

OBJECT POSITION

This specifies the position and size of the currently selected object in the appearance file. Normally, you'll want to move and resize the object with your mouse. However, if you need more precision, changing these settings with this dialog may be helpful.

Top The y coordinate, in pixels, of the top edge of the object.

Left The x coordinate, in pixels, of the left edge of the object.

Height The height, in pixels, of the object.

Width The width, in pixels, of the object.

ANCHORS

This specifies where to anchor the currently selected object. Anchors determine how the object will grow or shrink as the data in the object is modified. This is an especially useful control mechanism for templates and appearance file being used as appearance files for PopChart Server. In both cases, objects usually grow, shrink, or are repositioned dynamically. By anchoring an object, you can be sure that it will stay where you want it to stay. For example, if you anchor the graph to the Center vertically and Left horizontally, you can be sure that the vertical center of the graph will always be in the same spot and that the left edge of the graph will always be in the same spot.

Vertical You can anchor your object vertically in one of three positions: Top, Center, or Bottom.

Horizontal You can anchor your object horizontally in one of three positions: Left, Center, or Right.