Web@aGlance

Getting Started

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For Windows

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Overview of Web@aGlance

Web@aGlance is a data integrator that contains visualization tools you can use to publish and view real-time and historical process data, either shown in an animated graphical display or plotted on a chart, over the Internet using your own, remote Web browser. Web@aGlance provides data connections to all major SCADA, DCS, and data historian applications via @aGlance/IT servers or OPC servers. These control systems can be installed on the local, server node, or on remote nodes that are accessible though TCP/IP network connections.

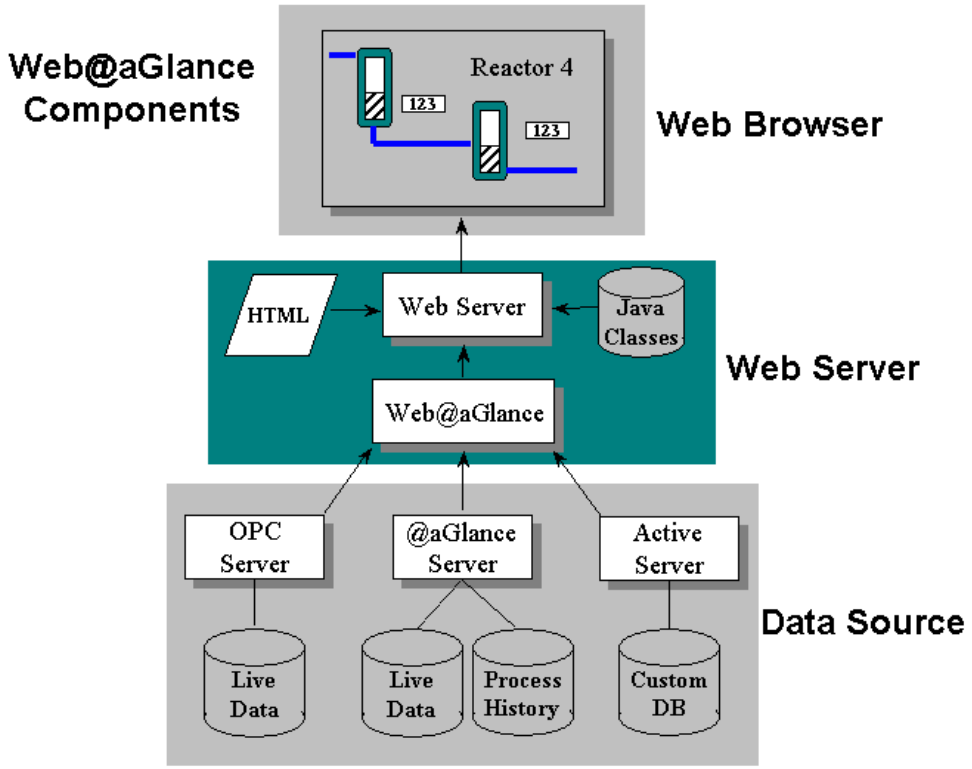

Figure 1. Network configuration for Web@aGlance

You can use the Web@aGlance tools to provide process information to secured remote users via the Internet or an intranet. This can be real-time data, read from actively running data sources, or historical data that was logged to disk. The data from your process is accessible to any end user in your enterprise who has a standard, Web browser with Java™ enabled.

You can configure your displays and charts to contain only the information you want end users to access. For example, R&D engineers can see how the new batch parameters worked out; quality assurance personnel can determine if each product is meeting the design requirements; maintenance personnel can determine if a line is down and why; and plant management can be assured that everything is working as planned.

@aGlance/IT and OPC servers access process data

Web@aGlance obtains data from of any eMation @aGlance server or any OPC-compliant server. @aGlance/IT and OPC servers bring live plant floor data from Distributed Control Systems (DCS) and SCADA (Supervisory Control And Data Acquisition) systems, supervisory control software, or devices to the Web@aGlance server via TCP/IP network connections. In addition, @aGlance servers can fetch data logged by data historians for display in Web@aGlance Web pages.

Web Servers serve process data to remote users

Web@aGlance uses an HTTP (HyperText Transmit Protocol) Web server to provide data from your process to remote users in the form of Web pages. The Web server, located on a machine to which all, or a select group of, end users have access, maintains the Web pages configured with information from your process. To access Web pages, end users type the IP address or URL (Uniform Resource Locator) of the Web server machine in their Web browsers, along with the name of the Web page to open. Multiple end users can connect to your Web server and view your pages.

If you do not already have an HTTP-format Web server, you can obtain the Personal Web Server (PWS, for Windows Workstations) or Internet Information Server (IIS 4.0, for Windows NT Servers) from Microsoft's Web site, *http://www.microsoft.com*. Web@aGlance is fully-compatible and functional with this free server. After configuring your Web@aGlance Web pages with animations and charts, you can use your own Web server to upload them a corporate Web server for access by remote end users.

Web@aGlance Tools

Configuration tools

Using the Web@aGlance tools, you create animations or charts of live and historical process data. To create animations, you use the Web@aGlance Animation Editor and your own Java-enabled Web browser. To create charts with live or historical process data, you use the Web@aGlance Chart Wizards. If you intend to do a more involved evaluation, such as creating a multi-page Web site to show your process information, you can run the Chart Wizards from within Microsoft FrontPage and use the FrontPage tools to create hyperlinks to other Web pages, add navigation buttons to your Web pages, and otherwise change the appearance of the Web pages.

When you create animation links or charts, the Web@aGlance configuration tools automatically detect any actively running @aGlance/IT or OPC servers and show you the data points available in each. If a desired server is not running when you create your animation displays or charts, you can type the server and tag (data point) information manually; at runtime, Web@aGlance will find that the server is running and show the values for the data points defined manually.

The Animation Editor and Chart Wizards create the displays and charts as Web pages (HTML files). The Animation Editor prompts you to save displays to one of the following locations: back to the Web@aGlance Web server for viewing by other remote users ("saving to HTTP"), to your local machine for your own use ("saving to File"), or to an FTP server ("saving to FTP"). The Chart Wizards prompt you to save charts to local files, to an open Microsoft FrontPage file, or to the Windows Clipboard (for copying into other HTML pages).

Display conversion tools

If you use one of the major SCADA/control systems and already have animation displays in that proprietary format, you can use one of eMation's display converters to convert those displays into Web@aGlance format. You can use a converter to convert the displays from an entire Web site in a short amount of time. If there is no existing converter for your SCADA application, you can use our Java Animation SDK to create a converter that converts displays created in your selected display format to Web@aGlance format. (Contact eMation for more information about available display converters and the SDK.)

Display viewing tool

You can use the LookBack VCR tool to playback your animation display and view it at an earlier time period. For example, if something went wrong in the process line during a previous shift, you can use the LookBack tool to replay the process and view it as it occurred during that shift to determine what went wrong.

Main Features

Supports real-time and historical data

You can view real-time and historical process data using a variety of Web@aGlance tools, including dynamic graphical objects, live trend charts, history charts, and the LookBack VCR tool.

Using the animation tools, you can create displays that show actual values in the connected process. If the SCADA/control program logged process data to disk, then you can use the LookBack VCR tool to rewind the process to replay the animation.

The Chart Wizards allow you to create charts of your real-time or historical process data. (For historical charts, your process information system must support historical data.) Web@aGlance offers a range of charting options. For example, you can create a single Web page with two charts: one with live data and one with historical data.

View and access only information of interest

When a Web browser opens a Web@aGlance display or chart, the Web@aGlance Web server provides the browser with tools to view and interact with the display or chart, according to permissions established in your server-client security configuration.

For example, you can open a Web page containing a chart and modify it to show only the process data points of interest (as long as those chart fields were defined as editable by the chart designer).

If you have permissions on the Web server, you can edit an animation display and save it back to the Web server for other end users; otherwise, you can only save the display on your local computer for your use. As soon as the modified Web page is saved to the server, it is immediately accessible by all end users. This ensures that everyone is working with the latest view of the data.

Support of all major SCADA/DCS software applications

The Web@aGlance tools can work with all major SCADA, DCS, and Data Historian applications. These applications can be installed on the Web@aGlance Web server or on remote nodes that are accessible via TCP/IP connections to the Web server. The Web server accesses process data through @aGlance/IT or OPC servers. If you do not already have one of these servers, you can contact eMation for a server that fits your specific needs.

For some of the major control applications, eMation has created converters you can use to convert existing displays to Web@aGlance format. The display converters can convert existing displays in a very short period of time, enabling you to get your Web site up and going in no time.

If there is no converter available for your existing displays, you can create a converter using the eMation Java Animation SDK. (Contact eMation for complete information about the display converters and the SDK.)

Ease of use

Thin client technology allows for zero installation

You install Web@aGlance once, on the Web server node. When a Web browser opens a Web@aGlance Web page from the server, the server provides all the tools needed to view the page and interact with its configured data. When the browser closes the page, the tools are removed from the browser computer. All the Web page design wizards are installed on the Web server. If you do not want to create animation displays directly on the Web server node, you can install the Animation Editor on another machine connected to the Web server and then download your Web pages to the server for access by other remote users.

No programming required

Although Web@aGlance uses Java, VBScript, and HTML programming languages, you do not need to know any of these to create displays and use the Web@aGlance tools.

The Animation Editor and Charting Wizards assist you in the creation of your displays and charts by prompting you for any required configuration information and showing you the active servers and the data points available for each server. To create graphic and configure it with a dynamic animation link, you select the tool for that graphical object from the Animation Editor Toolbox, drop it in your display, and configure its animation properties.

The Charting Wizards operate by prompting you for typical chart information and then saving the chart as you specify: either to the Windows Clipboard (for insertion in another file), as its own HTML file, or in an open FrontPage file. By drawing objects and setting properties, you can link critical, real-time information to graphical objects for animation within standard Web browsers.

If you **are** familiar with JavaScript and HTML, you can edit the applet and HTML source in the Web pages to customize the appearance of your process information pages. For example, you can change the font styles and colors in a chart.

Rapid deployment and configuration

The Web@aGlance tool implementation facilitates configuring and viewing process information.

To enhance performance and minimize network load, the Animation Editor is implemented as a Java applet that begins running in a Web browser only when that browser opens a Web@aGlance page.

The Web@aGlance Automation Server is a Common Gateway Interface (CGI) program that uses @aGlance/IT Automation API to access data in process information systems. This implementation provides for interoperability with most existing Web servers. The Automation Server also uses “Server Push” technology to notify the Animation applet of changing data values, thereby avoiding the need to repeatedly create a new connection for rapidly changing data. In addition, the Automation Server can be configured to poll the data server for values at a specific rate.

Secure information access environment

You have access to all the latest Internet security features because the Automation Server runs "behind" the Web server. Web@aGlance works with whatever type and level of security you define for your server-client configuration.

For example, you can encrypt all your data with Secure HyperText Transport Protocol (S-HTP) and/or Secure Sockets Layer (SSL) . You can use your Web server's password scheme for authentication, or add a certificate server and encrypted digital IDs.

You can implement password protection on certain functions or even prevent them altogether (for example, using `PutData`). Since the Automation Server uses @aGlance/IT to access plant floor data, all the proxies and permissions that control access to your process data can be applied.

The security permissions defined on a Windows NT Web server can control remote user access. When a Web browser opens a Web page from the Web server, the server prompts the user of that Web browser to log in. If the user is not already defined in the server, the process information is not passed to the browser. (See *Controlling user access to Web@aGlance data* on page 20 for more information about Web@aGlance security.)

Package contents

- The Web@aGlance Evaluation Kit CD contains the following:
  - The **Web@aGlance Server Edition**, including the Web@aGlance Automation Server, the Animation Applet, and the Charting Applet. (This edition contains a single client/browser license.)

    The Web@aGlance Server Edition enables you to access process data from any control applications connected via @aGlance/IT or OPC servers and maintains the configured Web pages on the server. It is licensed for multiple client connections, provides HTTP server access to outside the network, and ensures secured server/browser communications.
  - The **Web@aGlance Designer Edition,** including the Charting Wizards and Animation Editor. (This edition contains a single client/browser license.)
  - LookBack VCR historical playback tool.
  - @aGlance/IT demonstration servers and a restricted runtime (Full Function Runtime) that provide simulated live and historical data. These servers are used in the sample Web pages and projects, and for the tutorials.

Note: The restricted runtime included in the Evaluation Kit works with the demo servers and eMation's OPC connection. If you have @aGlance installed, the Evaluation Kit detects that installation and reconfigures its runtime restrictions during the installation process to work with the existing @aGlance installation.

  - @aGlance/IT Client Runtime, which enables you to connect Web@aGlance to any @aGlance/IT data server and use the Evaluation Kit to view data from your existing data servers in a Web browser.
  - Demonstration animation displays and charts, created using the Web@aGlance tools.
  - Online documentation, including user procedures, troubleshooting information, and release notes.
- Software license, included on a 3.5" diskette.
- This *Web@aGlance Getting Started* manual.

System requirements

Server computer

- A Pentium computer or better, with the following:
  - Windows NT, Version 4.0, or Windows 2000
  - At least 64 MB of RAM
  - TCP/IP installed and configured for server - browser connections
  - An HTTP Web server that supports CGI and Server Push

Note: If you do not already own Web server software, you can use the Personal Web Server (PWS) or Internet Information Server (IIS, version 4.0 or later). This server is available from the Microsoft Web site (http://www.microsoft.com); from the Windows NT 4.0 Options pack; or from a Windows NT Service Pack 4 or 5 CD.

*We recommend that you do **NOT** use the Personal Web Server included in a FrontPage installation. This version of the PWS contains limited functionality.*

Refer to Appendix B, "Compatibility Matrix," for complete information on supported and tested software environments for Web@aGlance.

Optional

- Display converter for existing SCADA/DCS displays.
- Actual SCADA/DCS applications and projects that are accessible to the Web server, either installed on the server or on a node to which the server has access.

  Note that one of the tutorials in this manual takes you through the process of adding real data from your own control application to an existing demo.

Client computers

- Java-enabled Web browser. We recommend either Internet Explorer 4.0 or later or Netscape Navigator 4.0 or later. (If you use a browser of an earlier version, some Web@aGlance functionality may not be available.)

Optional

- Microsoft Front Page 98 or 2000 for advanced Web site management capability.

Installation

The sequence in which you install the various applications is important to the correct operation of Web@aGlance.

***IMPORTANT**: Before attempting to install Web@aGlance and the other support applications, verify that you have configured the TCP/IP connection correctly. You can do this by pinging the "localhost" and verifying the returned IP name.*

You should install the various applications in the following order:

1. Install the Web server first, and verify its communication and operation with the target client nodes.
2. Optionally install FrontPage if you plan to use one of the Charting Wizards from within FrontPage.

   You **do not need** FrontPage to create real-time and historical charts: you can use the same chart creation wizards standalone, without FrontPage.
3. Install Web@aGlance.

   If you plan to do the live process data tutorials in this manual, you should install this software on a machine that has access to your actual process.

Licensed version versus Evaluation version

The Evaluation Kit may install partner-specific files such as the homepage and demos.

If you do not have a license, the Evaluation Kit is fully functional for one hour, after which time the license expires. When the one-hour license expires, you can reset it for an hour at a time.

➤ To reset the one-hour license

The Evaluation Kit runs for one hour without an actual license. You can reset the one-hour license using the Reset Evaluation License tool.

1. On the **Start** menu, select **Programs.**
2. Select **Web@aGlance** and then click **Administration**.
3. Click **Reset Evaluation License**.
4. In the displayed dialog box, click **Accept**.

When the Reset Evaluation License dialog box closes and the "Start Evaluation License" task is removed from the Windows taskbar, the license is reset. (This may take up to approximately one minute.)

5. Refresh or reload any open Web pages to view the animations and configured process data.

Applying licenses

To apply a license to an existing installation, you use the License Tool. You do not need a CD and you do not need to re-install Web@aGlance.

Using the Licensing Tool, you can also apply multiple licenses to a Web@aGlance installation.

➤ **To apply licenses to installations**

1. On the **Start** menu, select **Programs**.
2. Select **Web@aGlance** and then click **Administration**.
3. Click **Licensing Tool**.
4. Click **Add a License**.
5. Locate and select the file containing the license and click **OK**.
6. If you have more than one license to apply, select each license and click **OK**.

Additional Web server notes

Any Web server that supports the CGI V1.1 interface works with this release of Web@aGlance. For dynamic animations, the server must also support the *server push* protocol or you must configure Web@aGlance to use Java polling.

Microsoft Web Servers:
If setup recognizes a Web server installed on your system, it attempts to configure the server automatically. Setup looks for the URL addresses for documents and CGI folders (also known as "virtual directories" or "web server aliases") in your Web server's configuration database, and defines them if they not already there.

After installing Web@aGlance, you must restart your Web server so that it can recognize any new definitions. The Animation Editor uses Web server aliases when saving HTML files to the Web server via HTTP. The Web server detects Microsoft Web server aliases automatically.

Non-Microsoft Web Servers:
For these types of Web servers, you need to manually configure the Web server aliases "aagweb" and "cgi-bin" in the Web server. Refer to *aagweb\HomePages\trouble.html* in the online documentation for complete customization information.

Before upgrading from a previous eMation installation

Before you install an upgrade to a previous installation of Web@aGlance or a related product from eMation, do the following:

- Back up your aag.ini and aagweb.ini files to save any manual changes you may have made to these files. (These are located in the \Windows or \Winnt folders.) The installation procedure overwrites these files without warning, which will require you to manually re-add any changes you made previously to these files.

Note: The installation program automatically creates a copy of the most recent aag.ini and aagweb.ini files. These backup files are named aag.old and aagweb.old and they are located in the \Windows or \Winnt folder with other .ini files. If you have customized these .ini files, you may wish to make your own, more permanent backup copies.

- Stop any @aGlance/IT servers and the @aGlance/IT name server, which runs as a service on Windows NT. (This requires Administrator privileges.)

Installing the Web server

For Windows NT, we recommend the PWS or IIS 4.0. This server is included in Service Packs 4 and 5, or it can be downloaded for free from the Microsoft Web site.

See Appendix D, "Installing IIS 4.0 on Windows NT", for installation procedures specific to installing the Microsoft IIS 4.0 server on Windows NT machines.

Installing Web@aGlance

Before installing Web@aGlance, do the following:

- Make sure the Web server and any data sources (OPC or @aGlance/IT servers) are already installed.
- Close any applications on your desktop.
- Shut down any Windows NT services that are not necessary for the installation.

➤ **To install Web@aGlance**

1. Log into the Administrator account, or an account that is in your system's Administrator group.
2. To install from a product CD, do the following:
   - Insert the Web@aGlance installation CD in the CD-ROM drive of your computer.
   - Identify the license information.
   - Double-click `Setup.exe` in the \Install folder to begin the installation.
3. To install from a downloaded version of Web@aGlance, double-click on the downloaded executable file, which is a self-installing kit.
4. Follow the Setup program's instructions as prompted.
5. Restart your computer after installation.

If prompted, you must define the following aliases in your Web server:

Name	Actual installation path	Permissions
Aagweb	..\inetpub\wwwroot\aagweb	Read
Aagweb/scripts	..\inetpub\wwwroot\aagweb\scripts	Script or Execute
Cgi-bin	..\inetpub\scripts	Execute

Specifying data sources

Web@aGlance can connect to either local @aGlance data servers or to servers running on another TCP/IP host. The Web@aGlance installation program searches any TCP hosts you specify for available data servers. You can define the host names during the Web@aGlance installation, or use the Web@aGlance Administration tool to add them later after the Setup program is finished. The Administration tool is available on the Windows **Start** menu, from **Programs - Web@aGlance - Administration**. Web@aGlance can access all servers installed on the "localhost" (the local machine) by default.

To add a SCADA system after Web@aGlance is installed, you must first verify the TCP/IP configuration. Then, you use the Administration tool to add the host for that system. Web@aGlance will find that new host automatically and connect to the specified @aGlance server.

If you are adding another SCADA node to a SCADA network for which an @aGlance server is already installed, you only need to reconfigure the SCADA system for that node and restart the @aGlance server. The primary host is already defined for Web@aGlance.

Allowing browser users to write to server pages

Normally, browser clients are allowed only to read from Web data sources.

During the installation program, you can configure Web@aGlance to allow users to perform writes as well.

Installation Types

- **Typical Installation**
  This selection installs the components that are used by most users. The Typical installation completes automatically, installs both Web product support and OPC connection support, and permits browser Writes to Web data sources.
- **Custom Installation**
  This option enables advanced users and those familiar with the various Web@aGlance components to install Web@aGlance as desired.

  1. Select **Web Product** and **OPC Connection,** and click **Next**.
  2. If setup recognizes a Web server installed on your system, it attempts to automatically configure the server. Setup will look for URL addresses for the documents and the CGI folders in your Web server's configuration database, and define them if they not already there.

     After installation, you must restart your Web server. The Animation Editor uses Web server aliases when saving HTML files to the Web server via HTTP.

  Microsoft Web servers: Most Microsoft Web server aliases are detected automatically.

  Non-Microsoft Web servers: You need to manually define the Web server aliases "aagweb" and "cgi-bin" in the Web server using the appropriate file or configuration tool for the particular Web server in order for Web@aGlance to work correctly. This is in addition to the `[Aliases]` section used by Web@aGlance saving files.

  3. Type or select the location of your Web server HTML documents. This may be the root document folder or any other folder that has been configured for your Web server. Setup installs sample HTML documents, help files, and Java applets in this folder.
  4. Type or select the location your Web server uses for scripts. This is where the Setup program will put the CGI binary executables or an ISAPI (Internet Server Application Programming Interface). This is the folder to which the Web server maps URLs containing the `cgi-bin` path. Note that for some Web sites, CGI binaries and CGI scripts are kept in separate folders. You can also configure your Web server to keep HTML documents and CGI programs in the same folder.
  5. Pre-define any remote hosts if Web@aGlance and your control system are located on different nodes.

If you are using WebOPC, or Web@aGlance with our OPC Connection, you can configure DCOM (Distributed Component Object Model) to communicate from WebOPC/OPC Connection to the OPC server on your control system. Ask your system administrator for help. If you are having trouble with DCOM, you can use eMation's @aGlance client-server technology.

6. To use @aGlance, **do not** select the OPC Connection box as described in step 1. Instead, pre-define the control system host name. (You can also do this step later using the Web@aGlance Administration tool, which is accessible from **Start** menu - **Programs - Web@aGlance - Administration**.) Then, install ONLY the OPC Connection on the control system.

If you are using Web@aGlance with @aGlance data servers, you must use eMation's @aGlance client-server technology.

7. If applicable, pre-define the control system host name to Web@aGlance. (You can do this later instead, using the Web@aGlance Administration tool from the Start menu.)

8. Select the Windows Program Folder where the Setup program should install the Web@aGlance menu items.

The installation completes automatically.

How it works

You install Web@aGlance on the Web server computer to which your process data servers are connected and your end users can connect. Any end users with access to that server computer can access the process information configured in Web pages, using standard Web browsers. When you install Web@aGlance, you can identify the locations of existing SCADA/DCS applications, or allow Web@aGlance to dynamically retrieve that information when starting Run mode.

When you create an animated drawing using the Animation Editor and live process data, you produce both a Web page (named "Your process.html" in Figure 2) and a screen description file. The Web page includes a call to the Web@aGlance Java applet. The screen description file contains all of the descriptive information about the layout of the drawing and how it is to be animated. This file guides the behavior of the Web@aGlance Animation Applet.

Upon receiving the HTTP request for the Web page from the Web browser, the Web server sends back the Web page along with a Java applet and a screen definition file. The applet contains tools for viewing the Web page. (If Web@aGlance Designer Edition was installed on the Web browser machine, then the end user can also edit the Web page.)

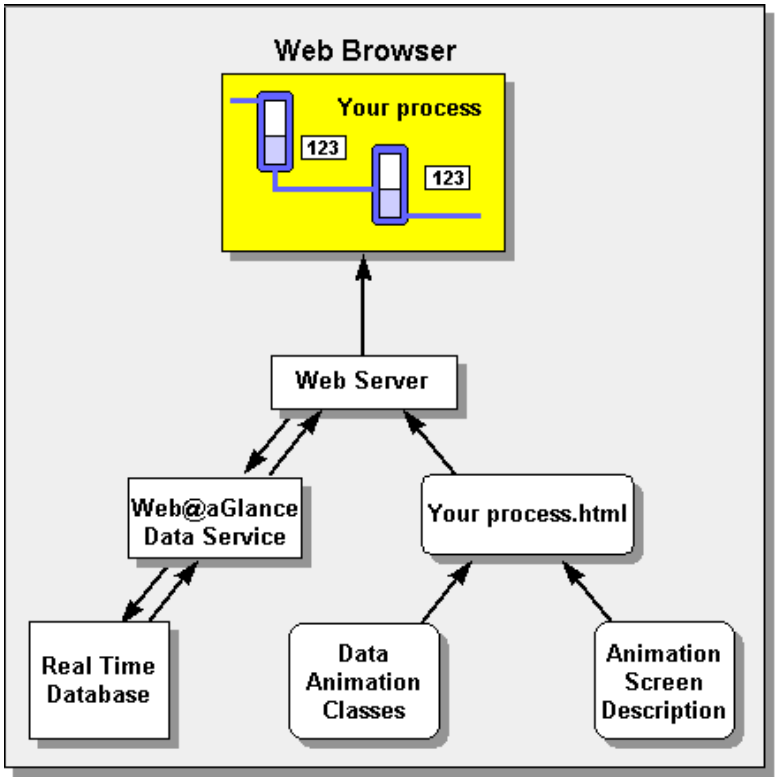

Figure 2. Shows how Web@aGlance and its various components work

The applet reads the screen description file and creates the animated graphics as configured in the display. Once the graphics are created, the applet establishes a connection with the Web@aGlance Data Service on the Web server. The applet provides the Data Service with a list of data values to retrieve. The Data Service automatically connects to the appropriate data sources and sends the requested information to the applet, and then notifies the applet whenever one of these data values changes. Upon receiving a new data value, the applet updates each graphical object that is linked to that data point. The graphical objects configured in the animation display redraw themselves to reflect the latest value.

When the Web browser leaves the page, the applet closes (and is removed from the browser machine) and the connection to the Data Service is ended. The Data Service automatically closes the connections to the data sources.

Controlling user access to Web@aGlance data

Note: This section assumes you are using Windows NT and Microsoft Peer Server (IIS 4.0) as your Web server configuration. As of this Web@aGlance release, most of our customers use this configuration and have no problems. If you have a different configuration for your Web server, reference the information in this section. If this section does not answer your questions, you can contact us for help in setting up security for your specific configuration.

A common concern of many users is how to control access by Web browser users to sensitive process data. You may wish to specify exactly which browser users are allowed to view process information. Or, if you have configured Web@aGlance to allow users to modify process data values, restrict that permission to specific browser users only.

You can control access to your Web@aGlance data using the following two methods:

- First, you can secure the Web server by forcing remote browser users to login as identified users (that is, not as an anonymous user).
- Second, you can configure the @aGlance server to control which of the identified users are allowed access (either Read or Write) to values in its database.

Identifying Web Users

By default, all network users are permitted "anonymous" access to your Web@aGlance Web site. This means that any user can load and view any page from your Web site without identifying him or herself. All requests from a browser for loading Web pages and for viewing data run on the Web server system resides under a single default guest account. This account is created when you install and configure the IIS Web server.

The first step in controlling access to Web@aGlance data is to enforce identification and authentication by using Web server security. The Windows NT IIS Web server provides for the following three types of authentication:

- **Anonymous.** No authentication, and all users run locally under the IIS Guest account. No browser login is required.
- **Basic Authentication.** Account login is requested. The browser prompts the user for a username and password. The username and password supplied must be associated with a valid account defined on the Web server system.

  The advantage of this authentication method is that it works with both Netscape and Microsoft Web browsers. A drawback to this method, however, is that is relatively insecure because the password sent from the browser to the Web server is not encrypted (that is, it is sent in clear text).
- **NT Challenge/Response.** User login is required. This method works only in Internet Explorer browsers. The password is not sent across the network. If the browser and server systems are in the same Windows NT domain, then the user is authenticated automatically with no visible login prompt.

You can define an authentication level for an entire Web site, for a selected folder, or for individual pages within a Web site. You use the Internet Service Manager provided with the IIS Web server to set the authentication options. (Refer to that tool's documentation for more information.)

If you do not allow anonymous access, the Web server will demand a login when a browser user first attempts to access a Web page. If this login is successful, the user is logged in for the entire browser session.

@aGlance data server security

When a browser user is successfully logged into the Web server, an @aGlance data server can identify the logged in user and apply its own security controls. This provides for another level of security for your Web@aGlance Web pages and process data.

When anonymous access is allowed, all requests for data appear to the @aGlance server as originating from the Web@aGlance data client running under the guest account. In this case, @aGlance data servers cannot distinguish which user is making the request. On the other hand, when anonymous access is disabled and each browser user is forced to log into the Web server, the @aGlance data server can identify which user is making a specific request and determine if that user has the appropriate permissions.

You configure data access permissions on the system where the @aGlance server is actually running. This may be a different system from the one on which you installed Web@aGlance. To configure permissions, use the @aGlance/IT Administration tool (from **Start** menu - **Programs - @aGlance,** select **Administration Tool**). You can use this tool to create security groups and add individual client users as members. Then, you can give data Read or Write permissions that apply to the entire security group. (See the Help in the Administration tool for complete information.)

Note: Some @aGlance servers allow for a finer level of access control. For example, some servers require additional permissions to access certain tag values. See the documentation included with your @aGlance server for more information.

Typical security configuration

One important thing you need to decide is whether you want to allow anonymous access to Web@aGlance data. In general, to disable anonymous access you must do the following:

1. Use the IIS Internet Service Manager to disable anonymous access for the folder(s) or specific Web pages that you want to protect.
2. Disable anonymous access for the Web@aGlance data connection (**aagweb.exe** or **aagweb.dll**) in the '**cgi-bin**' folder on your Web site. You can either disable access for the entire folder or for each executable file.
3. Remove all Read/Write permissions from the @aGlance default security group, AAG, for the server you are protecting.

There are several ways to configure access to your Web pages and @aGlance data, as follows:

- **Modify the Guest account permissions -** You can allow anonymous access for all browser users, but restrict these users to a low level of data access on the @aGlance server.

  One way to do this is by creating a security group on the @aGlance server that has only one member: the IIS guest user account from the Web server system. (Typically, the IIS guest user account is named 'IUSR_host' where 'host' is your Web server's host name.) Then, you could apply a Read permission to this group, for example.

- **Create shared accounts -** You can disable anonymous access while allowing browser users to access your pages and data through a few shared accounts on the Web server.

  For example, you could use the Windows NT User Manager to create two accounts on the Web server system: WebReader and WebWriter. Then, you could distribute the username and password for the appropriate account to all approved browser users. All browser users who do not have the correct username and password would be denied access to the Web site.

  This is a simpler administrative task, but means giving out shared passwords to your users.
- **Require user login to individual accounts -** You can require each browser user to log into an individual account on your Web server. This option provides maximum flexibility. If your users are already part of the same Windows NT domain for your Web server, then there is no need to create new Windows NT accounts; the browser users simply log into the server using their own domain usernames and passwords.

  On the @aGlance server system, there are several configuration choices:

  - You can grant Read access to all Web users, but protect Write access. If this is the case, you need to give Read permission to the default @aGlance security group ('AAG'), create a separate security group for those with Write access, and add the appropriate browser users to the Write access group. For this option you need only define which browser users have Write permission.
  - You can restrict Read access to specific users only. In this case, you need to create another @aGlance security group for those browser users who will need Read access, and then add that group to the appropriate users.

Figure 3 illustrates a typical security configuration.

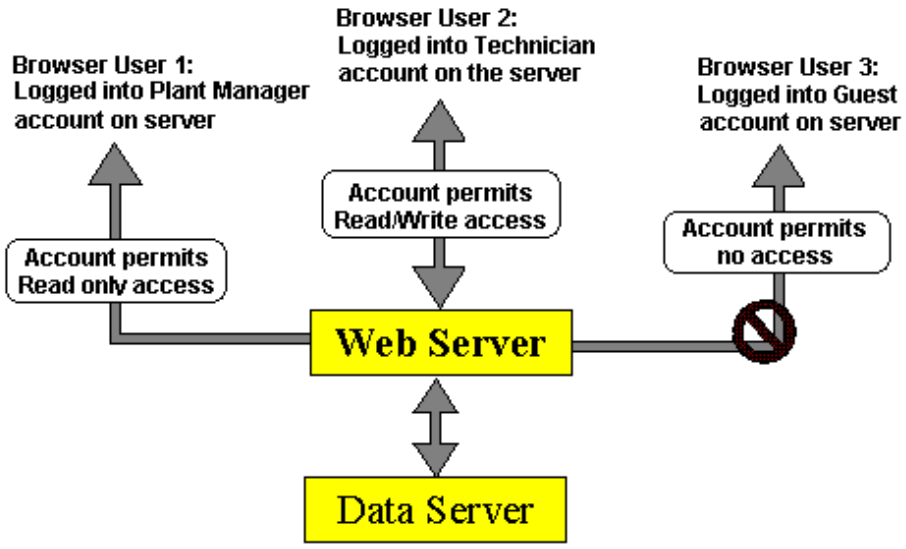

Figure 3. Shows three users trying to access Web@aGlance process data

Unique Security Configurations

If the information in this section does not cover your own system configurations, such as firewalls and proxy servers, data encryption with secure sockets, or other issues, refer to *www.emation.com/support/aglance* for more information on security configuration. If you can't get the information you need from our site, please contact us directly for help.

How to Use the Web@aGlance Tools

Web@aGlance facilitates the creation of tabular, charted, and graphical representations of process data. You can create Web pages that contain animated displays of your live process data and charts containing live or historical process data. Remote users can access the Web pages saved to a Web server and view and interact with the configured data.

Animation Editor

The Animation Editor (one component of the Animation Applet, which is installed on the Web server) is a set of tools you can you use to configure objects and animations in displays. When you open a Web@aGlance Web page from the server, the Animation Editor is loaded on your computer. The Editor is run in your Web browser, enabling you to edit the animation display, or create new displays, and save them to the Web server for access by other Web browsers.

The Animation Editor provides for a true What-You-See-Is-What-You-Get configuration environment. You can edit a display as it animates; you do not have to take it offline to change its appearance. If you want, you can pause the display's animations while editing.

To create Web pages with real-time dynamic process graphics, you use the Animation Editor's tools from your Web browser.

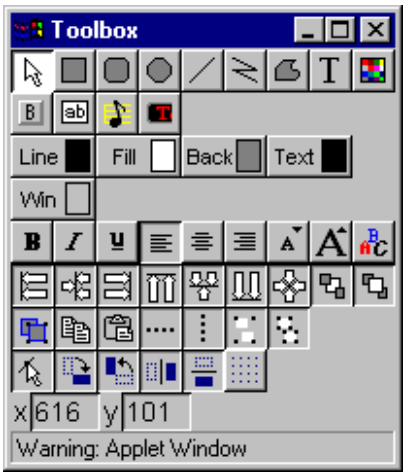

Figure 4. Animation Editor Toolbox

You select a graphical object tool from the Toolbox, drop the object in the display, and configure its properties. The applet shows you a list of all active servers (that is, servers that are running) and the I/O points in the selected server (referred to as "tags") to which you can link your animations.

The Animation Editor stores your completed displays as Web pages back on the Web server, enabling others to have immediate access to them. If remote end users can write to the Web@aGlance server, they can operate the animated objects and write values to live data points. Depending upon the security configurations of your file system, Web server, @aGlance server, and SCADA system, remote browser users can control your process and even shut it down if necessary.

The Toolbox contains tools that can be used to create and manipulate objects, or perform other functions within the application window. You can add objects such as text fields, scrolling marquees, sound objects, process values, and symbols to the display using the Toolbox. Then, you use the formatting tools in the Toolbox to format the graphical objects in the display, including aligning, rotating, flipping, and coloring selected objects.

Note: You can configure one animation display per Web page.

Aside from the simple graphical object tools in the Toolbox, there are some more advanced, special purpose objects, as follows:

- **Wizards**
  Wizards are symbols that are saved as separate files. All wizards available to the designer show up as wizard tools in the Toolbox. When you insert a wizard into the document, it appears as a symbol object.
- **Marquees**
  You can use the Marquee tool to add scrolling text marquees to your display. These appear similar to those seen in the real world, for example in airports and train stations.
- **Melodies**
  You can use the Melody tool to insert sound objects (.au files) into animation displays. You can use the Melody tool to play one or more sound files when an associated tag value is True (Boolean 1), and stop play when the tag transitions to False (Boolean 0).

Charting Wizard

The Charting Wizard (part of the Chartlet, or Charting Applet) provides the ability to create both real-time and historical charts and trends of your process data. These charts are saved as Web pages accessible from Web browsers. (Note that you can create history charts only if your process control/information system supports saving history and logging history data.)

At design time, you can configure the data you add to a chart as invisible (that is, it doesn't appear in the chart as a display field) or fixed (that is, it's shown in the chart but cannot be edited), or some other format that allows user interaction. For example, you can create a chart that shows the current values of two tags: if you format the Tag information as a Text Box, then the end user can type in the names of other tags available in the associated server and redraw the chart to show those tag values. When the chart is saved back to the Web server, the chart reverts to its original design for the next browser user.

You can add the ability to export charts in Excel and HTML formats, allowing you to use the chart information in other applications.

You can create these charts using one of the standalone chart wizard tools and save them as HTML documents or copy them to the Windows Clipboard for insertion in other Web documents, for example, other Web pages in a company intranet. If you have Microsoft FrontPage, you can use the Web@aGlance chart tools from within FrontPage to create the charts. If you intend to use the charts within as part of a Web site, you can use the FrontPage tools to add other Web formats, such as hyperlinks that open other pages in the Web site or link to other URLs. Using the Charting Wizards with FrontPage can help simplify the creation of Web pages that contain one or more Web@aGlance charts.

The Charting Wizard walks you through the process of configuring process data in a chart format. The Wizard shows you all available data sources and prompts you to select the data sources and data points (tags) to show in the chart.

Charts with history data

*Note: The SCADA/Control application must support the logging of process values in order to create charts with historical data. As of this writing, OPC servers do **NOT** support historical data.*

The Chart Wizard can show logged process data in two formats: Actual and Interval. For charts showing actual data, the Chart Wizard makes a request to the historian (the program that logs the process data) to retrieve a specific number of data values exactly as they were stored, during a specified time period. For interval data, the Wizard requests that the historian return values the values logged at exactly the times you specify.

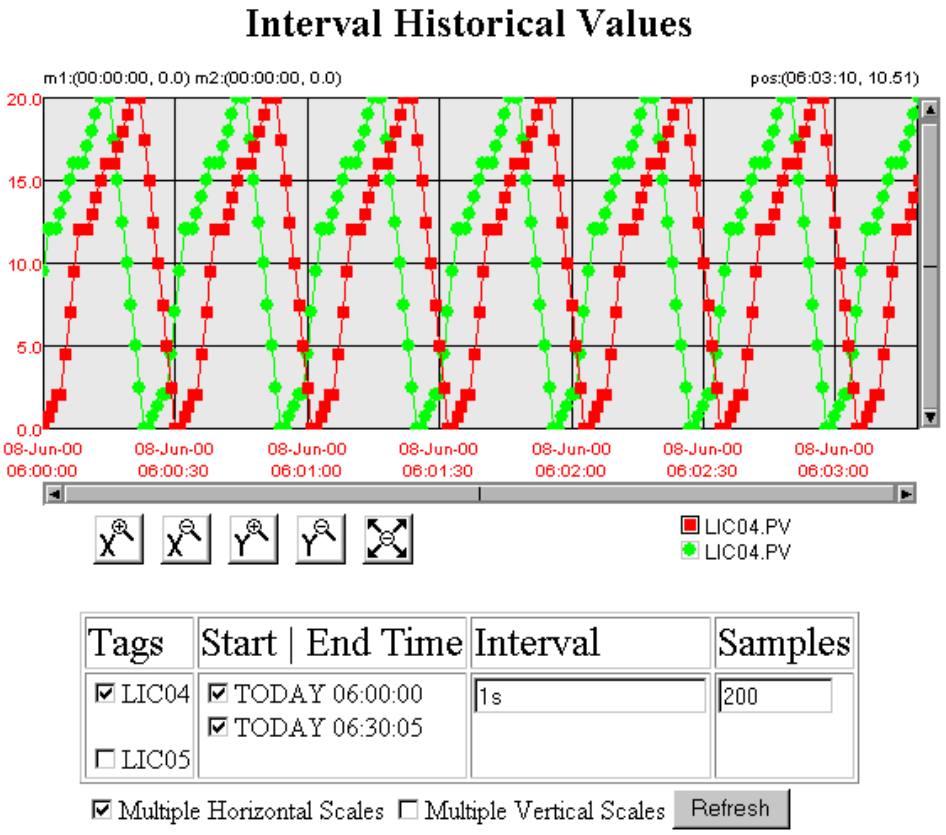

Figure 5. Chart configured with interpolated historical process data and overlapping time comparisons

In addition, most historians programs can calculate statistics on the values taken on a process variable over a defined period of time. Using the Chart Wizard, you can create a history chart containing statistical data in either whole chart format (plots the specified statistical value(s) as a representation for the entire time span of the chart) or interval format (plots the requested statistical value(s) for each interval time in an Interval History chart).

You can create historical data charts with data from one or two servers, and from multiple time ranges. Also, you can create Web pages that contain more than one history chart on each page.

Charts with real-time data

You can create trends showing live process information formatted in a strip chart or bar chart format. (Strip charts update automatically and display recent values.) The Charting Wizard fetches the most recent process values available from the data server and displays it in the selected format.

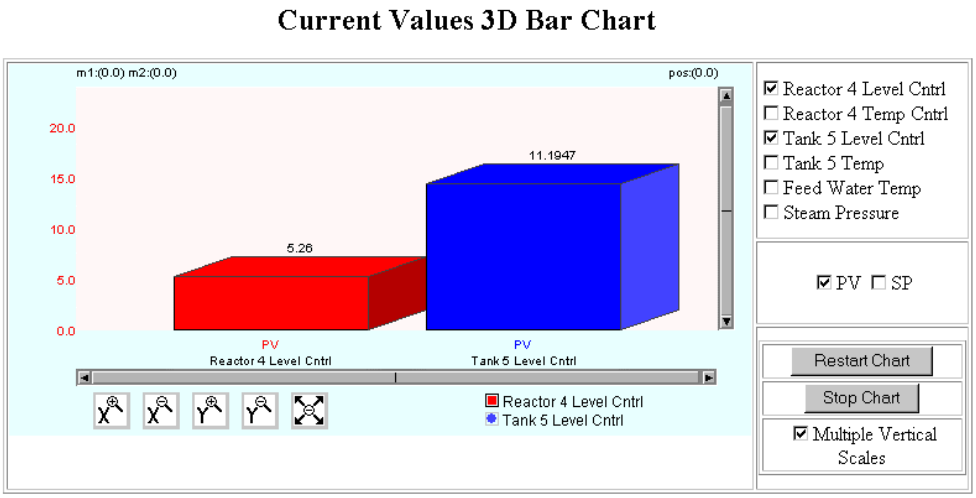

Figure 6. Chart with live process data shown in Bar Chart format

Note: You can only configure one live data chart on a Web page.

Manually-editing charting wizard code

Once a chart is embedded in an HTML document, you can view the source and edit the applet or HTML code for that page. By editing the code, you can customize how the Web pages appear to the Web browser user.

The online user documentation provides a functional reference of the JavaScript and HTML used to create the applets and Web@aGlance Web pages. Refer to *aagweb\Charts\HTMLParams.htm* for this information.

We recommend that you edit the Web page source code only if you **are** very familiar with JavaScript and HTML. Note that it's always a good idea to create backup copies of the pages before you edit them.

Other wizards

In addition to using the Charting Wizard to create trend and historical charts, there are three other wizards: Animation Wizard (available from within FrontPage only), Form Wizard, and HotLink Wizard. As with the Charting Wizard, each of these wizards guides you through a few easy steps, creates the necessary HTML, and automatically inserts the finished object into a Web page.

Animation Wizard

You can run the Animation Wizard from within Microsoft FrontPage to create new, empty animation applets in existing HTML documents. The Animation Wizard is available from the Web@aGlance menu in FrontPage.

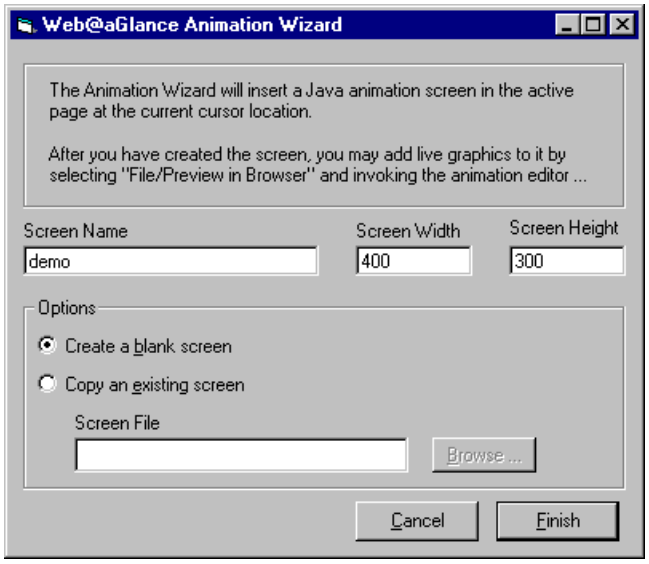

Figure 7. Animation Wizard tool available from within FrontPage

You can preview the Web page in your Web browser (**File** menu - **Preview in Browser** command in FrontPage) and use the standard Animation Editor tools to add graphical objects and animations to the display. In this way, you can add the applets to HTML documents that may be configured as part of a Web site, with other HTML tags, such as hyperlinks and style sheets.

Forms Wizard

You can use the Form Wizard to create custom forms that you can insert into HTML pages. This Wizard creates forms that read, display, and chart data values. Including forms in your Web pages enables you to collect information from the people viewing your Web page or visiting your Web site.

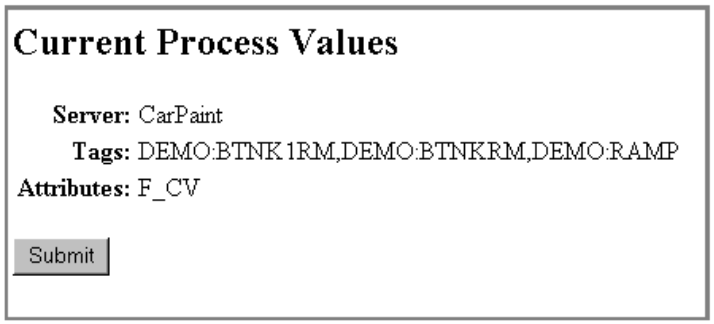

Figure 8. Example form that prompts the user for information and then creates a chart with that information when the user clicks Submit

When someone submits information, using the **Submit** button configured in the form, the form sends the information to the Web server. You can request the information from the Web server and view it in a Web page. When you request to view the information, the server creates a custom HTML page containing the information retrieved from the form.

HotLink Wizard

You can use the Hot Link Wizard to insert custom hot links, or hyperlinks, in your HTML pages. You can create a hot link that automatically reads and displays data in a chart format when a Web browser user clicks the links in your Web page. You can also configure hot links that show charts of current values or historical values from your process data.

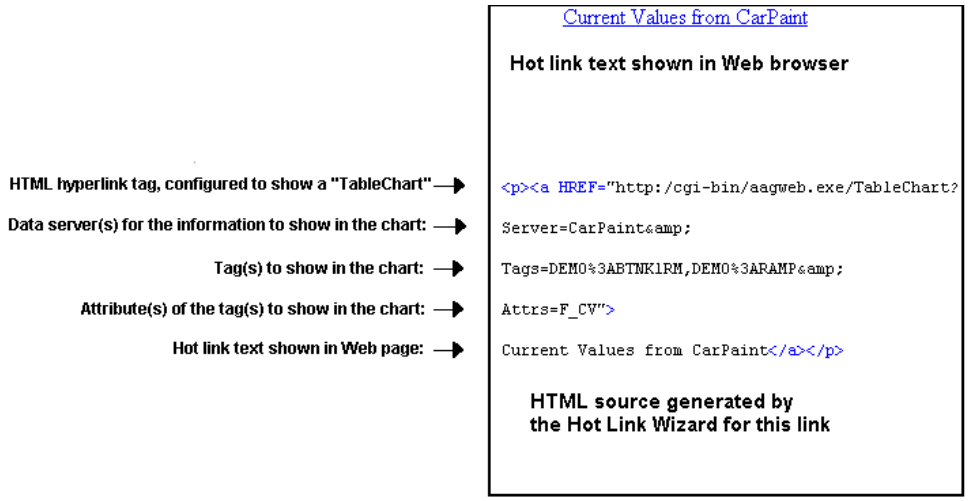

Figure 9. Example of a hot link created in a Web page, and the link's HTML source (not shown in the resulting Web page)

LookBack VCR tool

The Web@aGlance LookBack VCR tool enables you to replay animated displays to view historical process information. LookBack VCR is useful for training, debugging, and even auditing purposes. You can use the LookBack VCR tool from your remote Web browser to see the process operations as the actual plant operator saw them when they occurred. You can use this tool to replay the process to determine what may have gone wrong in the process.

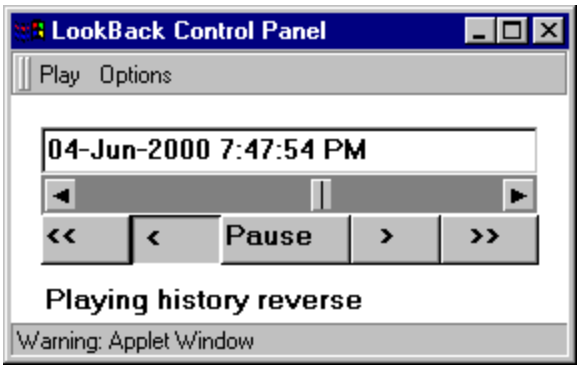

Figure 10. LookBack VCR tool

The LookBack VCR plays back data stored in a server-side data historian. LookBack utilizes Web@aGlance animation displays that were created with the Animation Editor or were imported with a Graphics Filter. Objects in the displays are associated with data points in the SCADA or data historian system. As long as the data points linked to a particular display were being logged to disk, that display can be used to view past process information. Using the LookBack VCR, you chose a specific time and then replay the process from that point.

You can use the LookBack tool with data historian applications or with historical information from supported SCADA applications.

Using the Web@aGlance Demos

The Evaluation Kit includes many demonstration displays and charts. These demonstrations are designed to use simulated process data from the local demonstration servers, which are also included in this installation.

The demos use either "live" or historical simulated data. Note that in order to use the historical demos, the data server must be able to provide logged data. As of this release, only @aGlance/IT servers (not OPC servers) support history data.

Animation display demos

These demos use the Web@aGlance Java Animation Applet to show process data in an animating display. These displays were created in a Web browser using the Web@aGlance Animation Editor tools.

You can view a selected animating display while it is updating with live data. Some of these demos support viewing the live data, and some support viewing historical data. The animation design demo was configured to start in design mode (so that the Animation Editor appears when you start the demo). If your server supported historical data, you can use the LookBack VCR tool to replay the process and view it as it looked in an earlier timeframe.

Animation Displays	Description
Reactor4	Shows a manufacturing process in which a concentrate is mixed with water and heated, transferred to a second vessel, and then sent on for packaging. Temperatures, pressures, and levels from the process are measured, reported through the operator display, and stored in the server database. **Live Data Animation** To start the display in live animation display mode, select **Real-Time Animation Demos**, and then select **Reactor4**.

Animation Displays	Description
	History Replay To start the display with the LookBack VCR tool shown for history replay, select **Historical Animation Demos**, and then select **Reactor4**. **Editor** To start the display with the Animation Editor toolbox shown for editing the display, select **Animation Design Demo**, and then select **Reactor4**.
CarPaint	Shows a production line on which cars are painted blue. The display's graphical objects animate as position sensors are tripped; these changes are recorded in the server database. **Live Data Animation** To start the display in live animation display mode, select **Real-Time Animation Demos**, and then select **CarPaint**. **History Replay** To start the display with the LookBack VCR tool shown for history replay, select **Historical Animation Demos**, and then select **CarPaint**.
Stock Grid	Shows live (simulated) stock market data for fourteen companies. This display fetches the current values from the Market Data demo server. You need to start this server manually. (Refer to Running a demonstration display or chart on page 41 for the steps to starting a server.) **Live Data Animation** To start the display in live animation display mode, select **Real-Time Animation Demos**, and then select **Stock Grid**.

Animation Displays	Description
Fast Animation	Shows simple text boxes and rectangular objects configured with color fill dynamic links that are configured to animate quickly with process values. The server is set to the same update rate as for all demos in this installation. The text box at the bottom of the display updates according to a ramp function that changes by one unit every 0.1 second. The data source sends an update every two-tenths of a second, if the CPU is fast enough. **Live Data Animation** To start the display in live animation display mode, select **Real-Time Animation Demos**, and then select **Fast Animation**.

You can show the Animation Editor for any of the animation display demos and edit those displays.

➤ **To edit the animation display demos**

1. Run the selected display.
2. Right-click in the display screen, and select **Editor**.
3. Use the tools in the Animation Editor Toolbox to edit the display.

Charting demos

These demos use the Charting Applet to show "live" or historical simulated process data in a chart format.

The charts were created using the standalone Chart Wizard, available from the Windows Start menu, or by using the Chart Wizard from within Microsoft FrontPage.

Real-time Charting Demos	Description
Current data in an animated 3-D bar chart	Shows a chart with live data shown in a 3-D bar chart format. This chart fetches the current values from the Reactor4 demo server. The chart is designed to show the values of two tags. You can select to add up to four more tags to show in the chart.
Current data in an animated strip chart	Shows a chart with live data displayed in a strip chart format, which displays the oldest values to the left and feeds in current values from the right at the defined interval. This chart fetches the current values from the Reactor4 demo server. The chart is designed to show the values of two tags. You can select to add up to two more tags to show in the chart.

Historical Charting Demos	Description
Interval historical data	Shows a chart with logged process data in a strip chart format. This chart is formatted to show interval history data. This chart fetches the history values from the Reactor4 demo server. The chart is designed to show the values of two tags, with a start time of one hour ago to the present time. You can select to add up to two more tags to show in the chart, and select other start times, and interval and sampling rates to view the chart with different information.
Interval historical data from two time ranges	Shows a chart with logged process data in a strip chart format. This chart is formatted to show interval history data. This chart fetches the history values from the Reactor4 demo server. The chart is designed to show the value of one tag with two different start times from the current day. You can add another tag to show in the chart, and type your own interval and sampling rates to view the chart with different information. (Use the correct format for defining your own time ranges. This information is online in the Charting Wizard documentation. Refer to *aagweb\charts\timeformats.htm*.)
Actual historical data from two servers	Shows a chart with logged process data in a strip chart format. This chart is formatted to show actual history data. This chart fetches the history values from two demo servers: Reactor4 and DemoServer. The chart is designed to show the values of different tags from each server. You can add up to two more tags to show in the chart (for a total of three tags per server), and type your own start and end times for the data and the number of samples to show in the chart.

Historical Charting Demos	Description
	(Use the correct format for defining your own time ranges. This information is online in the Charting Wizard documentation. Refer to *aagweb\charts\timeformats.htm*.)
Excel export capability	Shows a chart with logged process data in a strip chart format. This chart is formatted to show interval history data. The Chart Applet fetches the history values from the Reactor4 demo server. The chart is designed to show the values of one tag attribute. You can select to add up to four more tags and another attribute to show in the chart. You can type your own start time for the data to show, and select other interval and sampling rates to view the chart with different data. The chart is configured to export its data to a Microsoft Excel spreadsheet.
Historical chart without an HTML GUI	Shows a chart with logged process data in a strip chart format. This chart is formatted to show interval history data, logged at 8:00 AM (0800) of the current day. This chart fetches the history values from the Reactor4 demo server. You cannot interact with the chart data; it was designed for view only, and does not provide a form for user input.

Running a demonstration display or chart

Before you can run a demo display or chart, you need to start the server(s) associated with the demo. Refer to the preceding tables to determine which servers are configured for which display or chart.

When a demo server is running, it appears as a task on the taskbar.

➤ To start a demo server

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Do one of the following:
   - **Click Web@aGlance Overview and Demos** to start three of the demo servers and view the Demonstration home page, from which you can select a demo to run. (The Market Data server must be started separately.)

   OR

   - Click **Demo Servers** and select a specific demo server to start. This starts only the selected server.

➤ To run a demo

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Click **Web@aGlance Overview and Demos**.
3. In the Demonstration home page, select the demo to run - either a display demo or a chart demo. (Refer to the preceding table for a description of each demo.)

When you open a Web@aGlance display or chart from your Web browser, the selected Web page and the various runtime tools for that applet are loaded in your browser.

Web@aGlance contains runtime tools for viewing configured process data and changing how it appears in displays.

Viewing historical process data in a display

If the LookBack VCR tool is installed on the Web server, it can be used from a remote Web browser to view the display as it appeared in the past. The LookBack VCR tool provides a snapshot view of a process from a defined time period.

The tool operates in two modes: playback and time selection. Playback mode plays back history data stored in a server-side data historian. You can playback the process by using one of the VCR tool's forward or backward buttons (see Figure 12). In time selection mode, you can use the scroll bar to show the process as it appeared at a different time.

➤ **To use the LookBack VCR**

1. Right-click anywhere in the animation display.
2. From the displayed shortcut menu, click **VCR**.

Figure 11. Loading the LookBack VCR tool in the Web browser

The LookBack VCR tool appears, showing the current date and time.

Note: If the menu does not show a "VCR" option, then the LookBack VCR tool was not installed on the Web server.

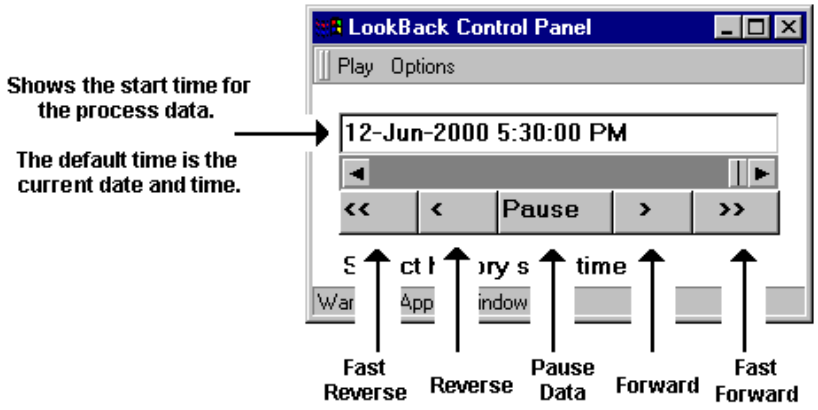

Figure 12. Explains the various components of the LookBack VCR tool

3. Do one of the following:

- Type a different start time (date and time) for the process, press the ENTER key, and then use the tool's buttons or scroll bar to move the process forward or backward in time.

OR

- Keep the start time at the current time and use the buttons or scroll bar to move the process backward or forward in time.

OR

- From the **Options** menu, select **Set History Parameters** and define the time frame (Duration) to show in the window, the start time for the data, and the interval for the data. Then, use the buttons or scroll bar to move the process forward or backward in time.

If you click the **Fast Reverse** or **Fast Forward** buttons, the process loops until you click **Pause** or another button.

Refer to *\aagweb\Vcr\Using.html* for complete user documentation for using the LookBack VCR tool.

Interacting with displays at runtime

You can include Touch Link animation links to enable user interaction with your process. During runtime, a Touch Link does nothing until activated by a browser user.

- Preset Link - writes a value to a tag.
- Text Entry - writes data values to a specified Server/Tag name.
- Hyperlink - loads a specified Web page.
- Disable - disables the touch functionality of an object.

For the Present Link and Text Entry animation links to work properly, the browser user must have permissions to write to the server.

Viewing data in a chart

The Chart Applet provides tools for viewing data in the chart.

Chart legend

The legend for the chart identifies the tags currently shown in the chart, and shows the color in which each tag pen is drawn in the chart.

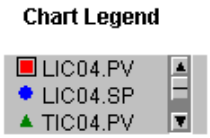

Figure 13. Shows an example legend for a chart

You can click a tag name in the legend to show the primary axes scales for that tag.

Zoom tools

You can zoom in and out of the chart to view the various tags and data. The Chart Applet supports two forms of zooming: using the zoom tools (shown in Figure 14)

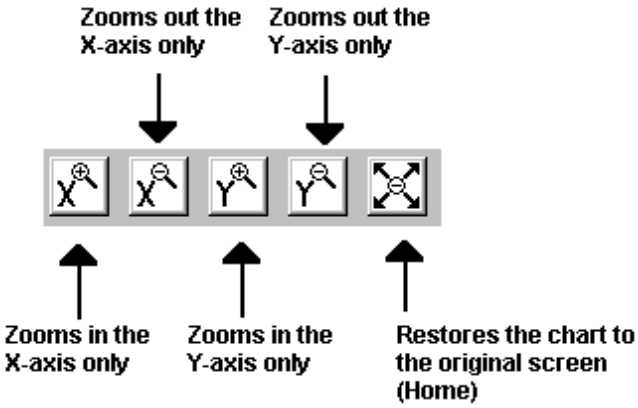

Figure 14. Explains the Chart Applet zoom tools

or "rubber banding" the chart area to zoom, as shown in Figure 15.

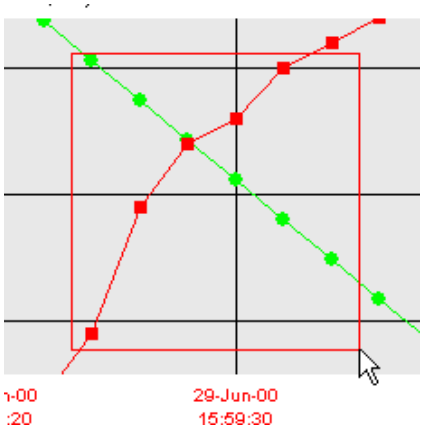

Figure 15. Shows an example of rubber banding an area of a chart

Rubber banding means to press the left mouse button and drag the pointer around the area of the chart that you want to zoom. When you release the mouse button, the selected area is magnified.

Once you zoom in on a selection of the chart, with either zoom method, you can use the scroll bar to view earlier and later data from the zoomed area.

Tracking and measurement tools

You can use the tracking panel to determine the "actual" values of data points, as well as measure the distances between two points in the chart. To measure a distance, click the first point you want to mark. A marker appears, as shown in Figure 16.

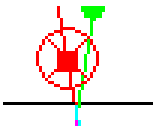

Figure 16. Example of a marker in a chart

Then right-click the second data point to mark. That marker appears in the chart. Coordinates for both markers appear above the chart, as shown in Figure 17.

m1:(20:14:26, -7.65) m2:(20:14:26, 2.66)

Figure 17. Example of marker coordinates

Note: In bar charts, tracking and measurement are available for the y-dimension only.

Changing chart data at runtime

If the chart designer defined editable fields, then you can modify the chart display for your own purposes. For example, if the tags for a chart appear in a text box, then you can type the names of other tags from the selected server to show in the chart. (Note that you cannot save the chart with this modified information.)

Quick Tutorials

This manual includes four tutorials that walk you though the process of creating animated displays and charts. The tutorials use "live" and historical data generated by the demo servers included in the installation.

Tutorial 1

You create a new interval history chart, using the standalone chart wizard and the Reactor4 demo server.

Tutorial 2

You modify one of the animated displays included in the installation by adding a new dynamic animation link. You modify the display in your Web browser and use data from the Reactor4 demo server.

Tutorial 3

You add a process value link from your own, live data server to one of the demo displays. You modify the display in your own, Java-enabled Web browser. For this tutorial, your computer must contain the Web@aGlance design tools (included in the Evaluation Kit) and your data source must be connected via an OPC or @aGlance data server.

Tutorial 4

You create a new, live data trend chart, using data from the DemoServer. For this tutorial, your computer should contain an installation of Microsoft FrontPage.

Note: If at any time while creating your tutorials you receive an error stating that the time for the Evaluation Kit has expired, you need to reset the one-hour license. Refer to the instructions in the "Installation" section on page 10 for complete information.

Tutorial 1: Creating a new history chart

In this tutorial, you create a history chart showing interval data from the Reactor4 demo server.

Data for this tutorial

This tutorial uses the Reactor4 demo server. Although the intended data source doesn't need to be running in order for you to create a chart or an animation display using the process values from the data source, it is a lot easier to configure the chart or display if the server is running. For this tutorial, you need to start the Reactor4 demo server first.

➤ To start the Reactor4 server

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Click **Demo Servers** and select **Reactor4**.

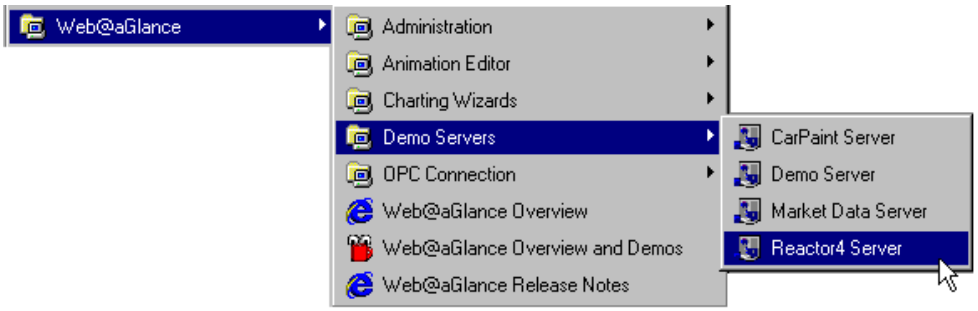

Figure 18. Starting the Reactor4 demo server

The Reactor4 task appears on the taskbar.

➤ To create a new history chart

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Select **Charting Wizards** and click **Chart Wizard**. The Web Chart Wizard Welcome dialog box appears.
3. Click **Next.**

In this dialog box, you select the type of data to request from the data server.

4. Do the following:
- Under **Request Type**, select ***Interval History***.
- Click **Next**.

In this dialog box, you select the data server(s) for the chart and select how you want the server information to appear in the chart.

The Chart Wizard finds the active Reactor4 server and shows it as a selectable server.

5. Do the following:
- Select the **Reactor4** server and click **Add Server Name**.
- Select ***Invisible*** in the **Display Selection** group. This hides the server selection from the chart display.
- Click **Next**.

In this dialog box, you select the tag(s) to include in this chart. All tags available in Reactor4, the selected server, appear for selection.

6. Do the following:
- Double-click ***LIC04*** and ***TIC04***. Both tags appear in the **Selected Tags** list.
- Select ***Check Boxes*** in the **Display Selection** group. This selection allows the end user to show one or both of the selected tags in the chart at the same time.
- Click **Next**.

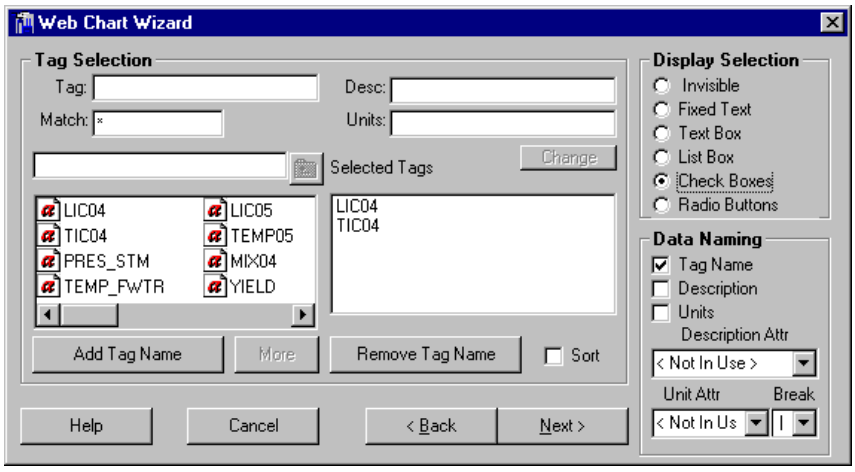

Figure 19. Selecting the LIC04 and TIC04 tags to show in the chart

In this dialog box, you select the tag attributes to include in your chart. The selection of attributes is optional: if your server doesn't require them, you can skip to the next dialog box. For this tutorial, you are including two attributes in the chart.

7. Do the following:
- Double-click ***PV*** and ***SP***. Both tag attributes appear in the **Selected Attributes** list.
- Select ***Fixed Text*** in the **Display Selection** group. This selection prevents the user from changing the attributes shown in the chart.
- Click **Next**.

In this dialog box, you select the time range(s) to show in the chart. The end user will be able to view all data logged during the selected time range.

8. Do the following:
- Double-click ***Now-8h*** and ***Now-2h***. Both start times (from 8 hours ago until the present time, and from 2 hours ago until the present time, respectively) appear in the **Selected Start Times** list.
- Select ***List Box*** in the **Display Selection** group. This allows the user show the chart information for one of the two time ranges.
- Click **Next**.

In this dialog box, you select the interval time for the chart information. You are going to select a default interval of once every minute, and then configure the information as a text box so that the end user can type other interval times for the chart data.

9. Do the following:
- Double-click ***1m***.
- Select ***Text Box*** in the **Display Selection** group. This selection created the interval time as editable text box in the chart.
- Click **Next**.

In this dialog box, you select the sample for the chart information. This value identifies how many values to show in the chart for the defined time range.

You are going to select a default sample count of 30, and configure the information as a text box so that the end user can type other sample counts.

10. Do the following:
- Double-click ***30***.
- Select ***Text Box*** in the **Display Selection** group. This selection creates the sample count as an editable text box in the chart.
- Click **Next**.

In this dialog box, you define how the chart appears in the Web page, including the name of the chart and colors for the chart and its border. Although the information in this dialog box is optional, for this tutorial you are going to define the appearance of some of the chart's features.

11. Do the following:

- After the chart name ("Interval Historical Values"), type "***from Reactor4***" so that the chart title now reads "Interval Historical Values from Reactor4."
- Under **Colors**, select ***Pale Yellow*** for Chart and ***Light Gray*** for Border.
- Leave all other chart features at their default values and click **Next**.

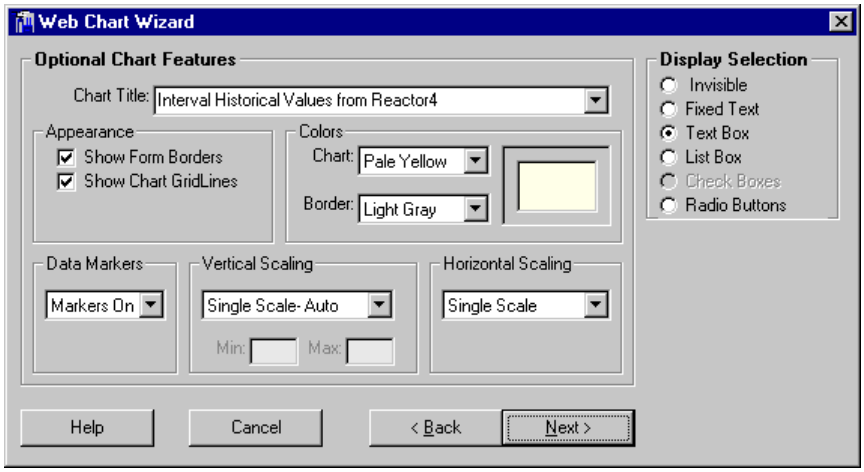

Figure 20. Defining a title and colors for the chart

In this dialog box, you define some buttons to include in the chart, including chart control buttons and an export button. Although the information in this dialog box is optional, for this tutorial you are going to define the appearance of the chart control button and add an export button.

12. Do the following:

- Replace the default name "Refresh" with "***Redraw this chart***".
- Under **Export Button**, select ***Provide Data Export button.***
- Next to **Mime Type: Action**, select ***Export Data to Excel***. The button name changes to show Export to Excel.
- Click **Next**.

This dialog box signals that you have finished creating your history chart. Now you need to save the configured chart.

13. Click ***Save As HTML File*** and select the location for saving the chart. Make sure you save the chart to a location accessible by the Web server and other end users, if you intend to publish this chart for others to access.

14. Click **Finish**.

Now you can open the HTML page containing the chart and view its values.

Remote end users can do the following with your chart:

- View the chart from their Java-enabled Web browsers.
- Use the chart tools to zoom in and out on the chart data. (Refer to *Viewing data in a chart* on page 44 for more information about using the chart tools.)
- Change the information in editable chart fields and then redraw the chart to see the new information.
- Save changes back to the Web server (if they have permissions) or to their own local computers.

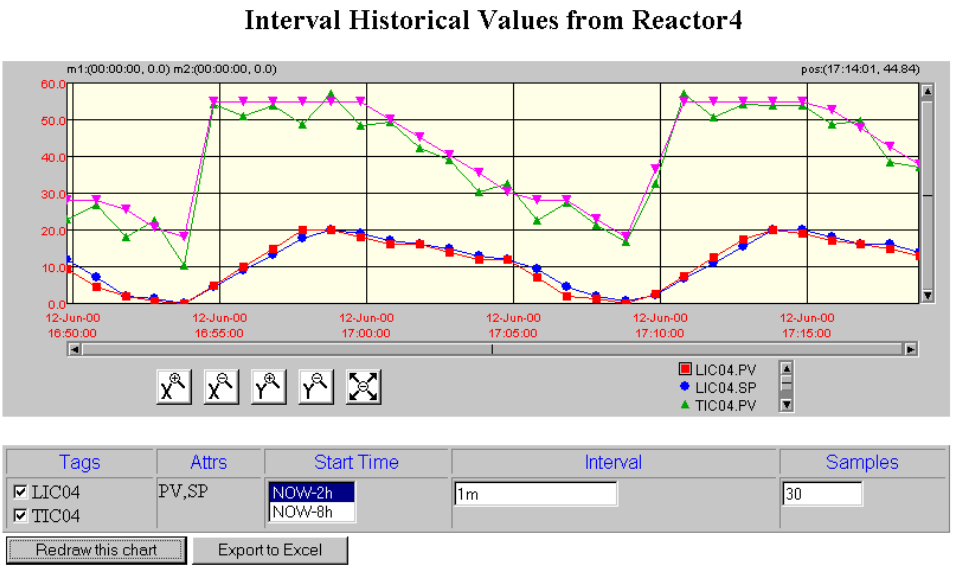

Figure 21. Finished history chart shown in runtime

Tutorial 2: Adding new animations to a demo display

In this tutorial, you add a new animation link to one of the demonstration displays. You can edit the display while it is animating: you do not need to stop it first.

Running the Reactor4 demo

In this tutorial, you modify the Reactor4 animation display. You need to open this display from the Web@aGlance program group on the Windows Start menu.

Although Web browsers can display many local HTML files, you can't directly open a local HTML file containing a Web@aGlance applet in your Web browser unless you point your Web browser at the Web server on which the file is saved. To do this, you provide your Web browser with a URL that begins with *http://hostname/* (where *hostname* is the name of your Web server). If you attempt to open a Web@aGlance page in your browser without providing this URL, the applet for the selected Web page (in this case, an animation display demo) does not start or run properly.

➤ **To start the Reactor4 demo**

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Click **Web@aGlance Overview and Demos**.

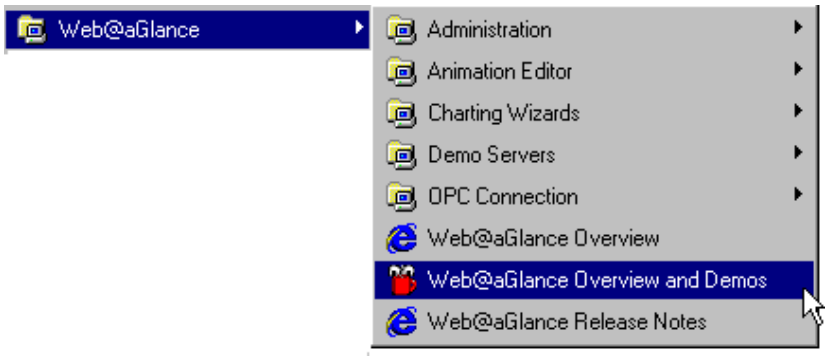

Figure 22. Opening the Web page listing the available demonstrations

The Demonstration Web page appears.

3. From the list of **Real-Time Animation Demos**, select ***Reactor4***.

Your default Web browser opens with the Reactor4 display. The display is animating automatically with "live" data from the Reactor4 server, which started when you started this demo. (If the display is not showing updating data, you may need to reset the one-hour license. Refer to *Licensed version versus Evaluation version* on page 11 to learn how to reset the license.)

➤ To add a new animation link to the display

1. Right-click anywhere in the animation display and click **Editor**.

Figure 23. Loading the Animation Editor in the Web browser

This loads the Animation Editor and shows the Toolbox.

2. Select  (the Rectangle tool) from the Toolbox and click in the display, below the Mixing Agitator object.

3. Drag the pointer to draw a long, horizontal rectangle in the display.

4. In the Toolbox, select 

(the Fill Color tool) and choose a ***red*** color from the displayed color palette.

The rectangle is filled with the selected color. This will be the fill color for the rectangle when the animation link is defined.

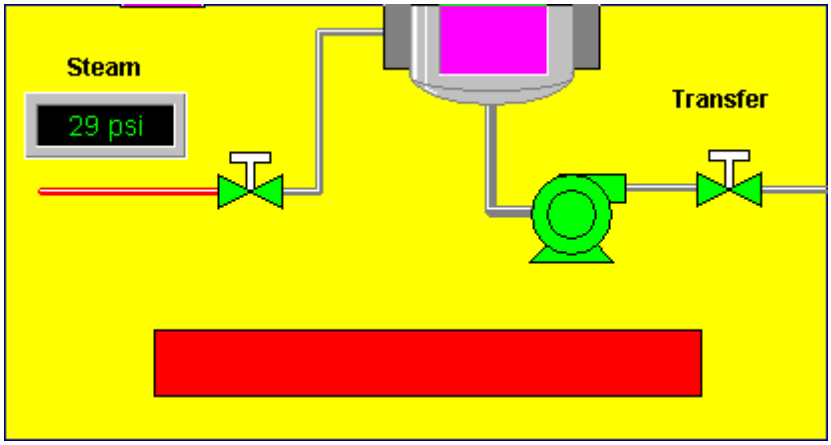

Figure 24. Shows the rectangle object filled with the color selected from the color palette

5. Double-click the rectangle object. The Animation Links dialog box appears. All animation links that you can apply to the rectangle object are available for selection. (For example, you can't add a Text Color link to this rectangle because it is not a text object; therefore, the Text Color links are not selectable.)

6. Click **Horizontal** under the **Percent Fill** group. The Percent Fill Horizontal dialog box appears.

7. Click  to the right of the Expression box. The Select Tag dialog box appears showing the available data servers and the tags configured in each server.

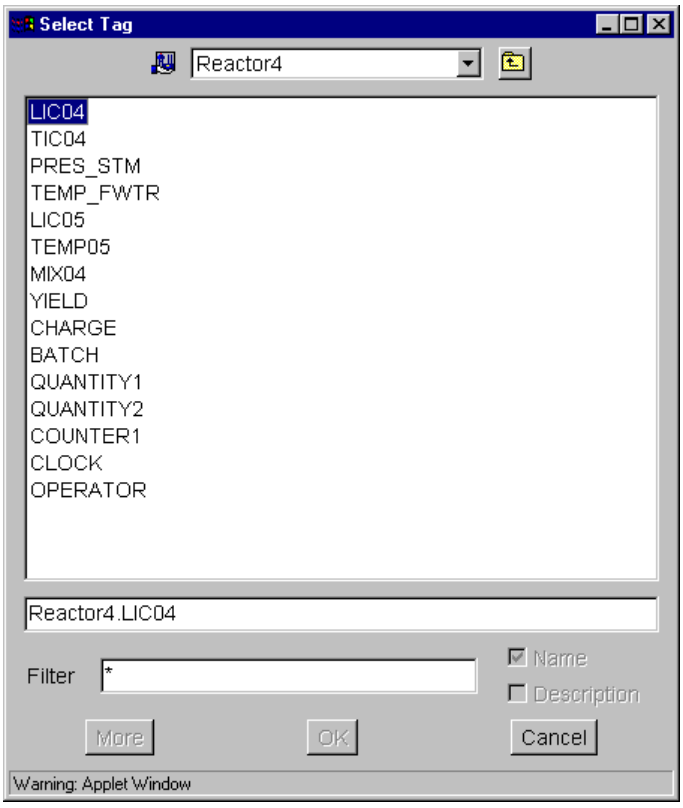

Figure 25. Shows the active server, Reactor4, and the tags defined for that server

8. Choose the ***Reactor4*** server and double-click the ***LIC04*** tag name.

The Select Tag dialog box reappears, showing all attributes available for the LIC04 tag.

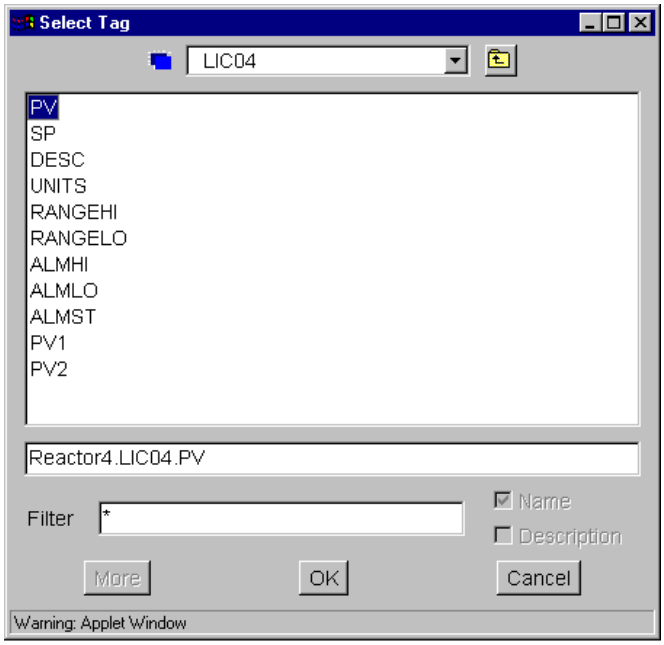

Figure 26. Shows the attributes available for the selected tag, LIC04

9. Double-click the ***PV*** (Process Value) attribute.

The Animation Links - Horizontal Fill dialog box appears, showing the server-tag information you just selected.

In this dialog box, you are going to leave all the default configuration properties for this object except that you are going to define a different background color for the rectangle.

10. Double-click  next to Background Color, and select a ***light green*** color from the displayed palette.

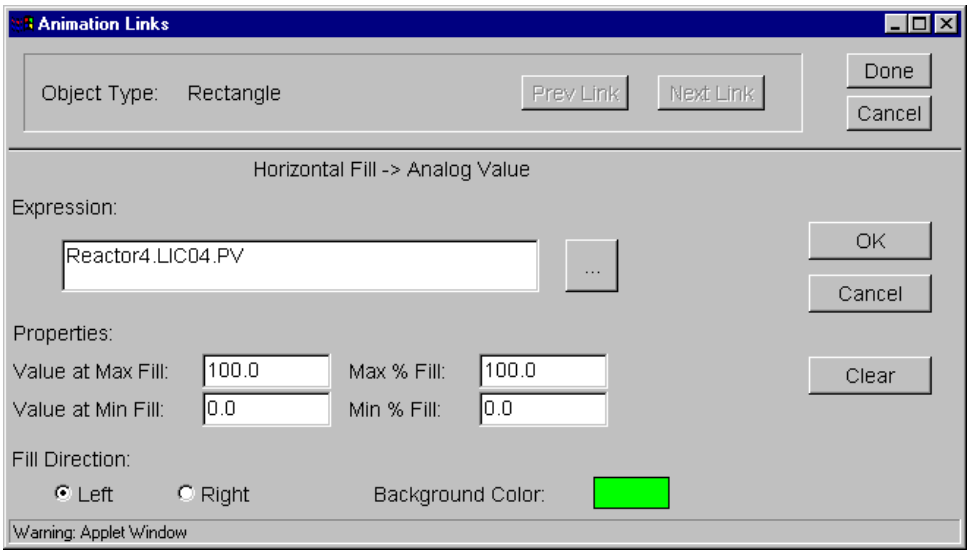

Figure 27. Shows the properties of the Horizontal Fill animation link for this rectangle

You are finished configuring this animation link.

11. Click **Done**.

In the Reactor4 display, the rectangle is animating automatically. It fills with the selected red color according to the value of the LIC04 tag.

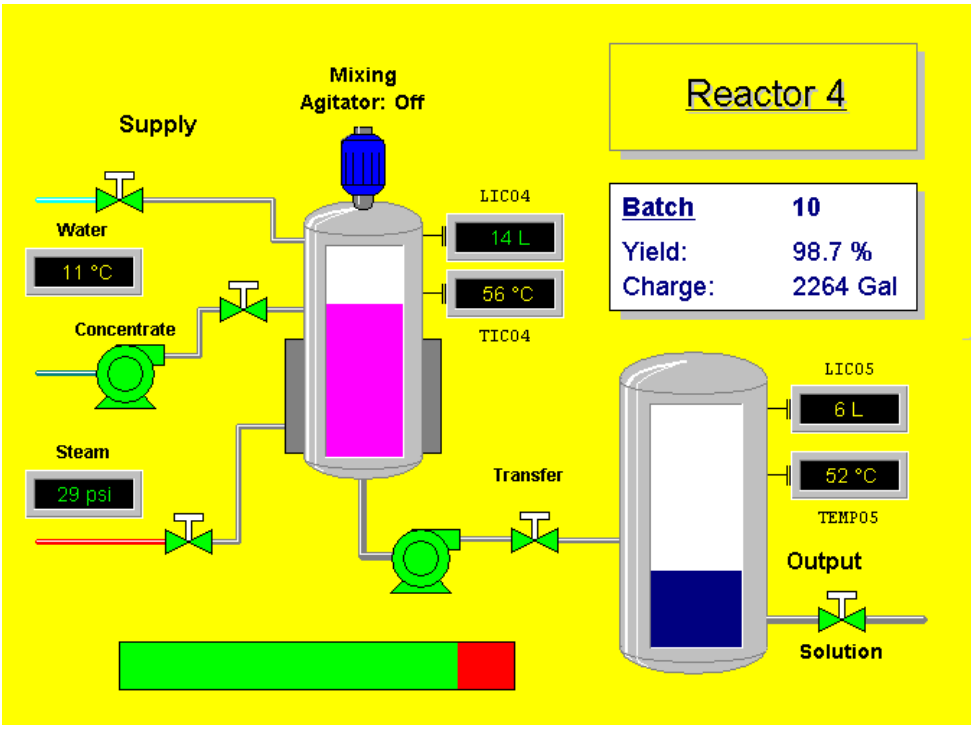

Figure 28. Shows the final display containing the new rectangle object

You can move the rectangle to another location in the display if desired.

12. Move the rectangle object by selecting it and dragging it to the desired location. Note that the rectangle continues animating while you are moving it.

Now, you can save the display to the Web server.

13. Right-click the animation display and choose **File - Save As**.

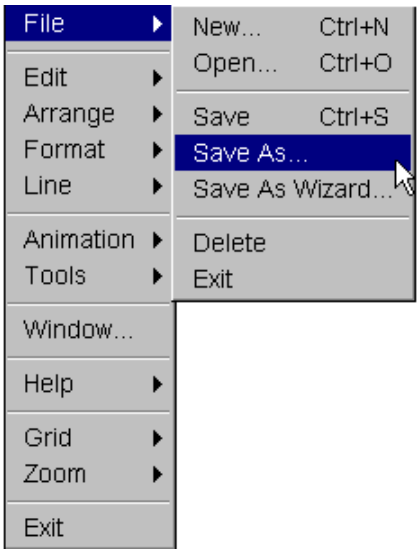

Figure 29. Shows the Animation Editor File menu

The Save As File dialog box appears, prompting you to save the file to the HTTP server, FTP server, or your local machine. The HTTP server (that is, the Web server) is the default target.

14. Type a name for the HTML file to save and type or select the location on the Web server for saving the file. (Note that you need permissions for saving to the Web server.)

Now you can return to live viewing mode.

15. Right-click in the display and choose **Exit**. This unloads the Animation Editor and its tools. The display continues animating with the defined process values.

Tutorial 3: Adding your own live process data to a demo display

In this tutorial, you modify a demo display to include live data from your own data source. In order to complete this tutorial, your Web@aGlance installation must include design support (included in the Evaluation Kit), and must have a data source with real-time data connected to eMation's OPC connection or to an @aGlance server.

Notes: Although you can configure data in the display without running your server, this tutorial assumes that you have already started your data source and that it is active when you are creating the animation link.

If you have not yet started your live process data source, do so now.

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Click **Web@aGlance Overview and Demos**. The Demonstration Web page appears.
3. From the list of **Real-Time Animation Demos**, select ***Reactor4***.

Your default Web browser opens with the Reactor4 display. The display is animating automatically with "live" data from the Reactor4 server, which started when you started this demo.

4. Right-click anywhere in the animation display and click **Editor.** This loads the Animation Editor in the browser and displays the Toolbox.
5. Select T (the Text tool) from the Toolbox and click in the display where you want to place the new text object.
6. Type ***#0.0 L***. This value format will show the process value with one leading zero and one decimal place, and will append the engineering unit "L" (for Liters) to the displayed value. (If the tag you intend to use for this link has another type of engineering unit, type the value representing that engineering unit instead of "L". You can do this after selecting your tag, if desired.)
7. Double-click the text object. The Animation Links dialog box appears.

All animation links that you can apply to the text object are available for selection. (For example, you can't add a Percent Fill link to this text object; therefore, the Percent Fill links are not selectable.)

You are going to add analog data for display in this Web page.

8. Click ***Analog*** under the **Value Display** group. The Animation Links dialog box for a Text object appears.

9. Click  to the right of the Expression box. A dynamic list of available data servers and their tag names appears.

10. Select your server from the server list. The tags available in that server appear.

11. Double-click the tag to use for the process value.

If your server supports tag attributes, all attributes associated with the selected tag appear.

12. If applicable, double-click the attribute for the process value tag.

The Animation Links - Text object dialog box appears, showing the server-tag information you just selected.

13. Click **Done**.

The process value appears in the display. Figure 30 shows an example of a process value configured from a demo server.

Figure 30. Shows an example process value, selected in the display

When you click away from the process value, it shows the current and updating values of the configured tag.

Now you can configure the appearance of the process value in the display, including changing the font size, style, and color.

14. Select the process value (it stops animating and the underlying text appears), right-click, select **Format,** and click **Font**. The Font dialog box appears.

15. Select ***Bold***, change the size to ***22*** (points), and click **OK**.

The text appears with the new font properties.

16. In the Toolbox, select 

(the Text Color tool) and select a ***red*** color from the color palette.

You are finished configuring the process value for this tutorial. Figure 31 shows an example of the Reactor 4 demo display as it appears with a process value configured as instructed in this tutorial.

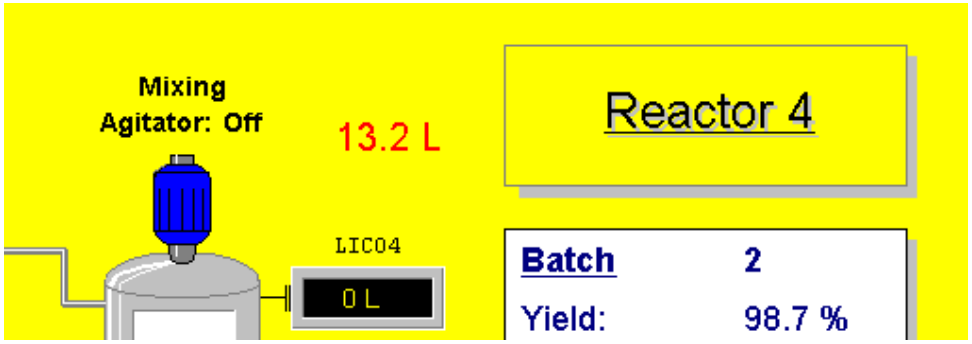

Figure 31. Shows an example of the display with the new process value

Tutorial 4: Creating a new real-time trend chart from FrontPage

In this tutorial, you create a trend chart showing "live" (simulated) data from the Demo Server demonstration server. You use the Chart Wizard from within Microsoft FrontPage to create the chart.

Although this tutorial instructs you to use FrontPage to create the chart, you can run the Chart Wizard standalone to create your trend chart. Follow the instructions from Tutorial 1 to learn how to start the Chart Wizard from the Windows Start menu.

Data for this tutorial

This tutorial uses the Demo Server demonstration server. Although the intended data source doesn't need to be running in order for you to create a chart or an animation display using the process values from the data source, it is a lot easier to configure the chart or display if the server is running. For this tutorial, you need to start the DemoServer server first.

➤ To start the DemoServer server

1. On the **Start** menu, select **Programs** and then select **Web@aGlance**.
2. Click **Demo Servers** and select **Demo Server**.

The DemoServer task appears on the taskbar.

➤ **To create a new live data trend chart**

1. Start Microsoft FrontPage and create a new Web page.

2. On the **Web@aGlance** menu, select **Chart Wizard**.

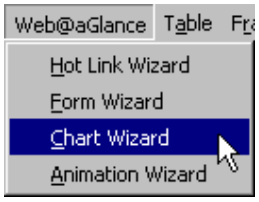

Figure 32. The Web@aGlance menu in FrontPage

The Web Chart Wizard Welcome dialog box appears.

3. Click **Next**.

In this dialog box, you select the type of data to request from the data server.

4. Do the following:
- Under **Request Type**, select ***Current Values***.
- Under **Chart Options**, select ***Display Data as Bar Chart***.
- Click **Next**.

In this dialog box, you select the data server(s) for the chart and select how you want the server information to appear in the chart.

The Chart Wizard finds the active DemoServer server and shows it as a selectable server.

5. Do the following:
- Select the ***DemoServer*** server and click **Add Server Name**.
- Select ***Invisible*** in the **Display Selection** group. This hides the server selection from the chart display.
- Click **Next**.

In this dialog box, you select the tag(s) to include in this chart. All tags available in the selected server (DemoServer) appear for selection.

6. Do the following:

- Double-click the following tags: ***FLOW01***, ***LEVEL01***, ***PRESS01***, and ***TEMP10***. All four tags appear in the Selected Tags list.
- Select ***Check Boxes*** in the **Display Selection** group. This selection allows the user to show one or more of the selected tags in the chart at the same time.

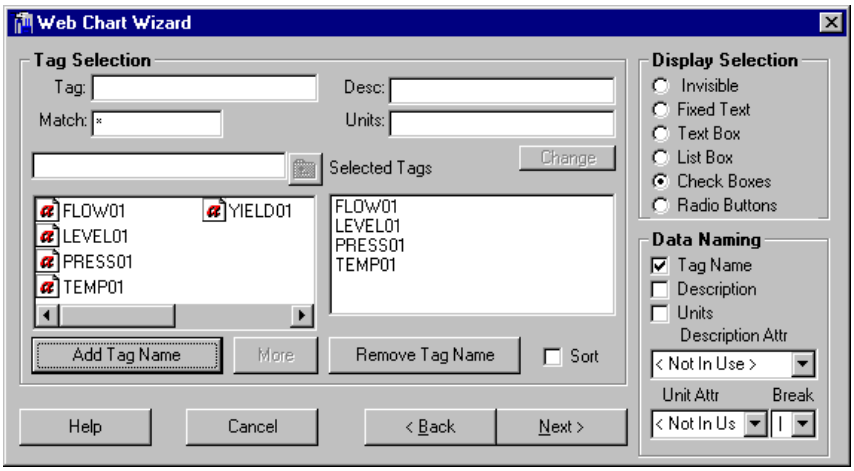

Figure 33. Selecting four tags to show in the chart

- Click **Next**.

In this dialog box, you select the tag attributes to include in your chart. The selection of attributes is optional: if your server doesn't require them, you can skip to the next dialog box. For this tutorial, you are including two attributes in the chart.

7. Do the following:

- Double-click ***PV*** and ***SP***. Both attributes tags appear in the Selected Attributes list.
- Select ***Fixed Text*** in the **Display Selection** group. This prevents the user from changing the attributes shown in the chart.
- Click **Next**.

In this dialog box, you define how the chart appears in the Web page, including the name of the chart and colors for the chart and its border. Although the information in this dialog box is optional, for this tutorial you are going to define the appearance of some of the chart's features.

8. Do the following:

- After the chart name ("Current Values"), type "***from DemoServer***" so that the chart title now reads "Current Values from DemoServer".
- Under **Appearance**, select ***3D Bar Chart***.
- Under **Colors**, select ***Black*** for Chart and ***Pale Red*** for Border.

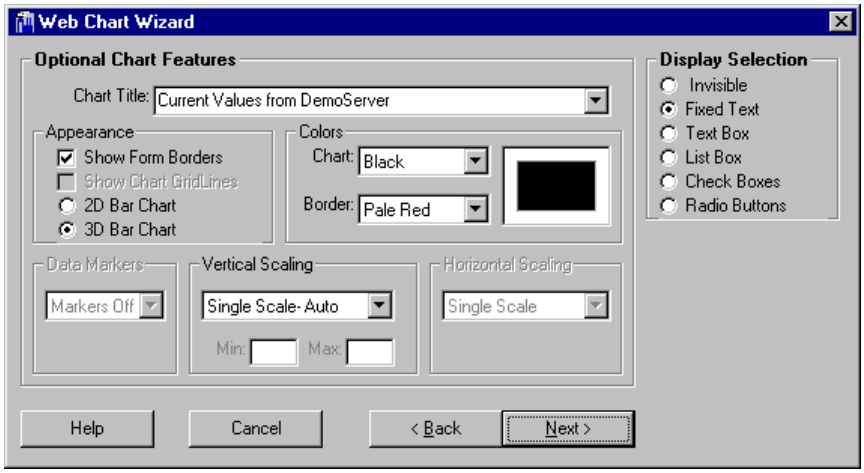

Figure 34. Defining a title, bar chart appearance, and colors for the chart

- Click **Next**.

In this dialog box, you define some buttons for the chart, including chart control buttons and an export button. Although the information in this dialog box is optional, for this tutorial you are going to define the appearance of the chart control button and add an export button.

9. Do the following:

- Select **Animated Bar Chart**.
- Select **Provide Stop Button**.
- Click **Next**.

This dialog box signals that you have finished creating your history chart. Now you need to save the configured chart.

10. Click **Insert into FrontPage**.

11. Click **Finish**.

The chart applet placeholder (AAGHistGraph), form, and buttons appear in the FrontPage document, as shown in Figure 35.

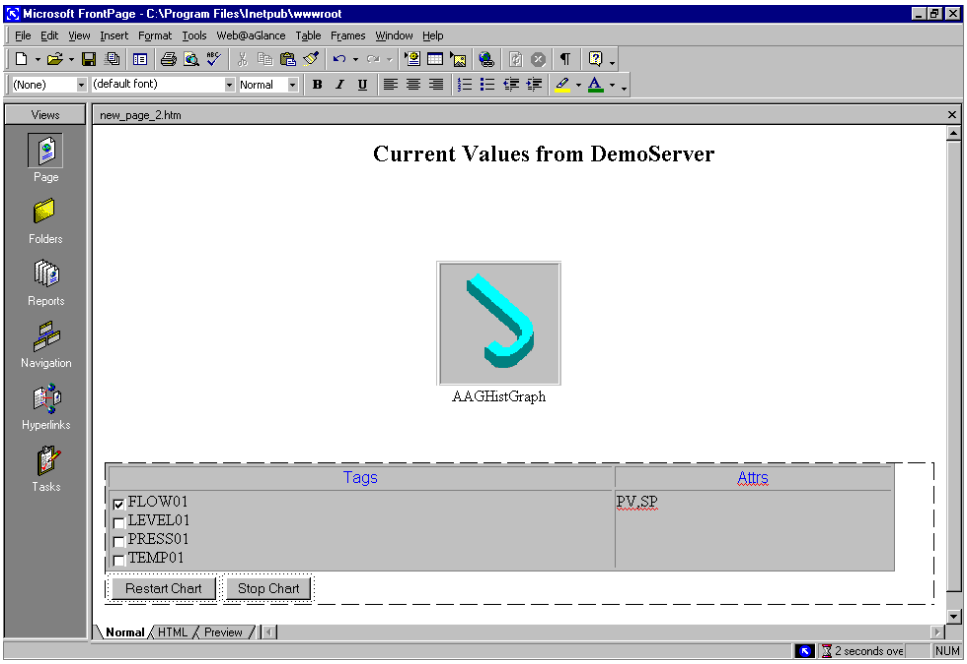

Figure 35. Finished trend chart shown in FrontPage, in Normal mode

At this point, you could save the chart to the Web server for use by other, remote end users. However, for this tutorial, you are going to use some of the FrontPage tools to modify this Web page.

First, you are going to change the font properties for the chart title.

12. Select the chart title, "Current Values from DemoServer," right-click, and select **Font**.

13. In the Font dialog box, select the following then click **OK**:
- ***Arial Black.*** (If Arial Black does not appear in this list of fonts, select another font.)
- ***5 (18 pt)*** size.
- The color ***green***.

By default, the data of only one tag, the first tag created (*FLOW01*), appears in the chart upon starting the chart in runtime. In the next step, you modify the applet to show the data of two tags upon starting the chart in runtime (that is, opening it in the browser).

14. Under the **Tags** column in the form, double-click the checkbox for the LEVEL01 tag.

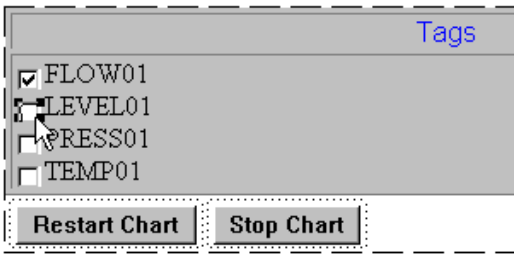

Figure 36. Changing the Level01 tag to start enabled at runtime

15. In the **Check Box Properties** dialog box, change the **Initial State** option to ***Checked*** and click **OK**.

The LEVEL01 tag is now checked in the form.

Next, you are going to edit the chart applet itself to change the colors for the FLOW01 and LEVEL01 tags.

Note: All supported JavaScript parameters are documented in the online documentation. Refer to \aagweb\Charts\HTMLParams.htm for a reference of the supported parameters.

16. Double-click the chart applet (as shown in Figure 37).

Figure 37. Identifies the Java Applet for the chart (AAGHistGraph class)

17. In the displayed **Java Applet Properties**, double-click ***dataSet1_color*** in the **Applet parameters** window.

18. In the displayed **Set Attribute Value** dialog box, type ***yellow*** to replace the red default color, and click **OK**.

19. Repeat steps 17 and 18 for the ***dataSet2_color***, replacing blue with ***orange***.

Finally, you are going to add a hyperlink to your company's Web site to this page. When an end user clicks this link, the Web site for your company will open in the end user's Web browser.

20. Press the ENTER key after the chart title to create another line.

21. Type "***Company Web site***".

22. Select the text you just typed (*"Company Web site")* and click  (the Hyperlink tool) in the FrontPage toolbar.

23. In the displayed **Create Hyperlink** dialog box, type the URL for your company and click **OK**.

    For example, for eMation's Web site, you would type *http://www.emation.com*, as shown in Figure 38.

Figure 38. Shows the eMation Web site as a link from this Web page

You are finished with this tutorial. You can now save your Web page to the Web server for other, remote users.

24. On the **File** menu, click **Save** and type or select the information for saving this file to the Web server.

Now when you can open this chart in your Web browser and see the values for the selected tags, formatted as a 3-D bar chart.

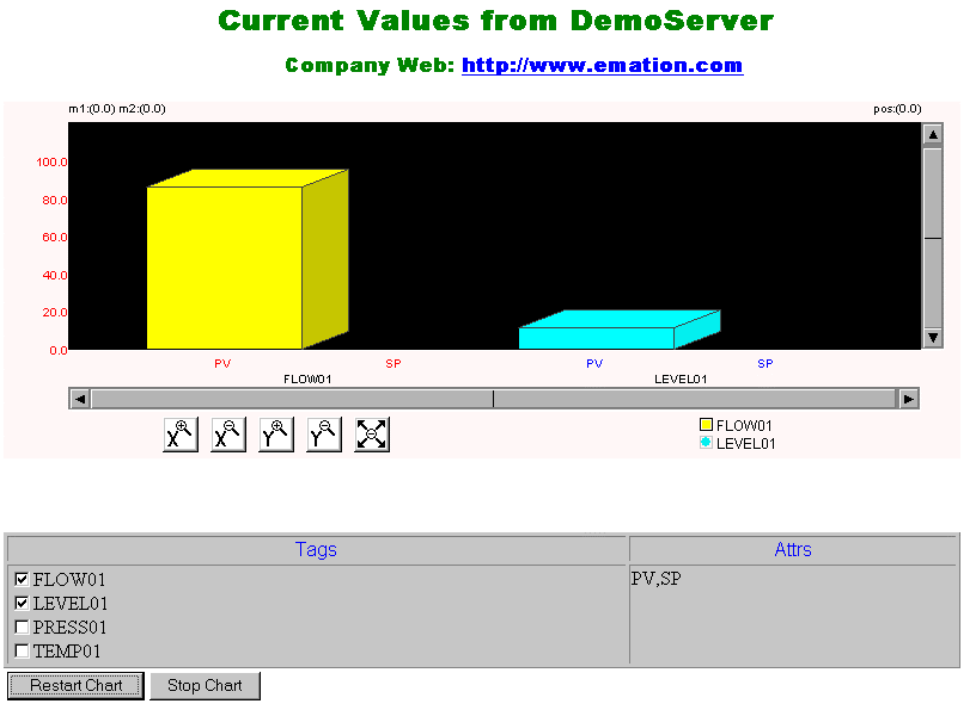

Figure 39. Shows the Current Values from DemoServer chart in runtime

Online Documentation

This Getting Started manual is intended to help you understand the Web@aGlance features. It provides an overview of the Web@aGlance tools and functionality. The Web@aGlance installation program includes lots of user-oriented documentation that explains how to create displays and charts, use the design tools, troubleshoot problems, understand errors, and more.

➤ **To access Web@aGlance online documentation**

1. On the **Start** menu, select **Programs**, and then select **Web@aGlance**.
2. Click **Web@aGlance Overview and Demos**.
3. Use the Documentation link in this page to access a table of contents for the online user's documentation.

OR

Open one of the documentation pages directly from your Web browser.

The following sections identify some of the Web@aGlance HTML documents and their information.

User documentation online

- For the table of contents of the user documentation, refer to *\aagweb\homepages\documentation.html.*
- For the **Animation Editor** user documentation, refer to *\aagweb\Editor\editDocs.html*.
- For the **Lookback/VCR** user documentation, refer to *\aagweb\Vcr\Using.html*.
- For the **Charting Applet** user documentation, refer to *\aagweb\Charts\chartdocs.html.*
- For the **Charting Wizards** user documentation, refer to *\aagweb\FPWIZ\overview.html.*
- For **Troubleshooting** information, refer to *\aagweb\homepages\trouble.html.*
- For **Error Message** information, refer to *\aagweb\homepages\aagerr.html.*

Release notes online

- For the **Animation Editor** release notes, refer to *\aagweb\editor\relnotes.html.*
- For the **Charting Wizard** release notes, refer to *\aagweb\FPWIZ\relnotes.html.*

Technical Support

Support within your company

Web Site Administrator

Contact your Web site administrator if you are having trouble connecting to your Web server, or if the server is returning Web Connection error messages. (See *\aagweb\homepages\aagerr.html* for more information on Web@aGlance error messages.)

Data Server/Network Administrator

Contact your data server or network administrator if you are having trouble contacting a particular data server. Generally, your Web site administrator and Data Server/Network Administrator need to collaborate to solve configuration problems.

Support from eMation

If you still have questions after reading this manual, searching for information in the online documentation, and contacting the appropriate support personnel in your company, you can contact eMation for help.

Mail: eMation, Inc.
201 Forest Street
Marlboro, MA 01752
USA

E-mail: support@emation.com

Phone: (508) 337 - 9200

Fax: (508) 337 - 9201

Internet: *www.emation.com*

Web@aGlance uses a Web server to maintain the displays and charts you create and to serve them to remote users. If you do not already have a Web server installed, you can obtain a free one from Microsoft. This server is referred to as the Internet Information Server (IIS) on Windows NT server computers or the Personal Web Server (PWS) on Windows workstations. This server is completely compatible with Web@aGlance, and is available from the Microsoft Web site (*http://www.microsoft.com*), from Windows NT Service Packs (SP) 3 and later, and from the Microsoft Options Pack.

Web Servers

A Web server is a software program that operates by sending out Web pages in response to requests from remote Web browsers.

A Web server provides Internet- or intranet-related services to Web browsers (which are its clients). The server and clients exchange HTML (HyperText Markup Language) documents using requests encoded in HTTP (HyperText Transmit Protocol), or some other protocol. The Web browser computers need to be networked to the Web server computer via TCP/IP (Transmission Control Protocol / Internet Protocol) connections.

CGI (Common Gateway Interface) programs enable the server to collect information from a user or to display information gathered from a database and formatted in HTML. A CGI program can be any program that accepts command line arguments. Some HTTP servers require CGI programs to reside in a special folder, often "/cgi-bin" but more advanced servers provide ways to distinguish CGI programs so they can be kept in the same directories as the HTML files to which they are related.

Proxy servers and caching

Before a Web server returns a requested Web page, that page is first saved to a proxy server. If subsequent users (Web browsers) request the same Web page, the page saved, or *cached*, to the proxy server is sent to those users, rather than the Web page from the original Web server. Caching can minimize unnecessary network traffic and other, Internet-related performance problems.

Web browsers

Web browsers are the client software programs that communicate with the Web server by requesting data from, or writing data to, the server. A Web browser converts HTML documents into Web pages that can be read by an end user. At the time of this release, two of the more popular Web browsers are Internet Explorer and Netscape Navigator (or Communicator).

A Web browser requests a page from a Web server using that page's URL (Uniform Resource Locator). The URL identifies the name and location of a page on the Web server.

An example URL could be:

http://www.plantA.com/operatorDisplays/Extruders.html

Where:

HTTP - identifies the communication protocol

www.plantA.com - identifies the hostname. This can also be the IP address of the server computer, if supported.

operatorDisplays - identifies the folder location or path name on the server that contains the requested Web page.

Extruders.html - identifies the name of the actual Web page to open.

Remote end users use their own Java-enabled Web browsers to access Web@aGlance Web pages containing animation displays and charts. When configuring your animation displays, you use the Web@aGlance design tools (included in the Evaluation Kit) available in your own Web browser and then save the resulting Web pages to the Web server for access by other users.

Web@aGlance Web servers and components

You install the Web server software on a computer to which clients (Web browsers) have access. For Web@aGlance support, you install the Server Edition on the Web server computer. The Server Edition allows for multiple client connections, and maintains the Web@aGlance Applets - Animation and Charting and possibly LookBack VCR. When a Web browser opens a Web@aGlance document from the Web server, the server sends the page along with other information needed to view and run the selected document's information.

Requests to the server must be formatted in the HTTP communication protocol. The Web@aGlance server supports CGI programs for reading user information entered in forms. In addition, some of the tools are CGI-based, including the Web@aGlance Automation Server. The Automation Server operates by providing all the client-side components with process data. The Web server invokes the Automation Server when it receives a URL from a Web browser that specifies the Web@aGlance Server (aagweb.exe) and one of the Automation Server's methods.

The Web@aGlance Web server also needs to support "Server Push" protocol to work with the Automation Server. Server push can be used to show data in the Web browser client without user input. For example, when a browser submits a request for data to the Web server, the server can "push" a message back to the browser, asking that user to wait. When a browser invokes the Automation Server's `Monitor()` method, the server uses "server push" to maintain a connection to the browser, thereby avoiding the overhead required to reopen a connection each time an updated value is received from the data source.

Java Applet-based components

Many of the Web@aGlance components installed on the Web server are implemented as Java applets. This can cause problems if your Web browser is not configured to load, start, and retrieve Java applet data through a firewall or a proxy server. These problems appear as security errors in your browser window when you attempt to open a Java applet that was previously cached to a proxy server. The Web@aGlance online documentation provides procedures for loading applets through firewalls and proxy server. (Refer to *\aagweb\homepages\trouble.html* for complete troubleshooting information.)

Note: If you install the Microsoft Web server on a Windows NT machine, selecting a standard or typical installation for both, and the client is a Microsoft IE or Netscape Web browser installed on a Windows NT machine, also using a standard or typical installation, then there are no special configuration needs or steps required to serve and access Web@aGlance process data. For this setup, regardless of whether or not there are firewall configurations, all the Web@aGlance server and client processes will work as installed and no security messages will be generated.

The Web@aGlance Java applets run in secured area known as a "sandbox." This implementation ensures that the applets cannot access the hard drive of the Web browser machine, do not affect the registry, and unload entirely when the Web browser leaves the Web@aGlance Web page. The applets loaded from the Web server machine are less than 200KB, enabling them to load quickly in the Web browser.

Appendix B: Compatibility Matrix

Web@aGlance version 2.6 has been tested, and it operation verified, on for the following system configurations:

Operating System	Browser	JVM
Windows 2000	Internet Explorer (IE) 5	3229
	Netscape 4.7	
NT Workstation 4.0, SP 6 (Service Pack 6)	IE 5	3176
	Netscape 4.6	
NT Workstation 4.0, SP 5	IE 5	2405
NT Workstation 4.0, SP 4	IE 4	2436
NT Workstation 4.0, SP 3	IE 4	2405
	IE 5	3167
	Netscape 4.04	
	Netscape 4.7	
	IE 4	2436

Notes: Printing is only supported on IE 4.x and higher.

This software is designed to work with Web servers that support the CGI V1.1 interface, and also NCSA-style "server push" for live updates (the `Monitor()` method).

Web@aGlance has been tested on the following Web servers:

Operating System	Web Server
Windows 2000 Server	IIS 5.0
Windows 2000 Professional	IIS 5.0
Windows NT Workstation SP6	PWS 4.0
Windows NT Workstation SP5	PWS 4.0
Windows NT Workstation SP4	PWS 4.0
Windows NT Workstation SP3	PWS 4.0
Windows NT Server 4.0	IIS 4.0

Appendix C: Customizing the Web@aGlance Environment

There are many different ways to customize your use of Web@aGlance. If you have specific customization needs that are not covered in this manual, refer to the following documents on the product CD and on our Web site for more information about different ways to customize Web@aGlance for your needs.

- *http://www.emation.com/support/aglance/basic/custom.html* - contains updated customization and vendor-specific notes.
- *aagweb\HomePages\customize.html#IniFile* - contains procedures for customizing the Web Connection (Web server CGI/ISAPI program) by modifying the aagweb.ini or aagsp.ini files.
- *aagweb\HomePages\customize.html#PropertiesFile* - contains procedures for customizing the animation applet, Animation Editor, and LookBack VCR by modifying the aag properties file or specifying HTML parameters.
- *aagweb\HomePages\customize.html#charting* - contains supported HTML parameters for customizing your charts.

Appendix D: Installing IIS 4.0 on Windows NT

Microsoft's suggested steps for installing IIS 4.0 on NT 4.0

(Service Packs and Option Packs are available from the Microsoft Web site.)

➤ **Install Windows NT 4.0**

Install the latest Windows NT 4.0 Service Pack
Windows NT 4.0 SP3 is required.

➤ **Install Internet Explorer 4.01 Service Pack 2 (SP2) (without Active Desktop)**

Notes: Internet Explorer 4.01 SP1 is included with the Windows NT 4.0 Option Pack; however, it is recommended that you install Internet Explorer 4.01 SP2.

There is no need to install Internet Explorer 5.0 on a computer running IIS 4.0 at this time.

➤ **Install Windows NT 4.0 Option Pack**

Windows NT 4.0 Option Pack includes IIS 4.0.

➤ **Re-apply the latest Windows NT 4.0 Service Pack**

Even if you installed the latest Windows NT 4.0 Service Pack, you need to re-apply it because the Windows NT 4.0 Option Pack Setup program overwrites DLL files installed by the Service Pack.

Steps to installing Windows 4.0 Service Pack 3

1. Insert the Win NT Service Pack 3 CD-ROM. A Web page appears automatically. (If the Web page doesn't appear by itself, double-click **My Computer**, then double-click the letter of the CD-ROM Drive.
2. In the displayed Web page, under Windows NT Service Pack, click **Install Service Pack**.
3. In the Welcome screen, click **Next**.
4. Read the Microsoft terms and agreement and click **Yes** to continue the installation.
5. Click **Install the Service Pack** as the type of installation desired.
6. Click **Next**.
7. Choose **Yes** to create an Install Folder. (If you see a message stating "Folder already exists, overwrite?", click **Yes**.)
8. If you see any OEM File replace messages during the install, click **Yes** to replace them.
9. If you see any messages stating that "a file being copied to the system already exists and the version being installed is older do you want to overwrite?", click **No**.

When installation is complete, a dialog box appears indicating that Windows NT 4.0 has been updated.

10. Click **OK** to restart your computer.

Steps to installing and configuring IIS 4.0

1. Click the Windows **Start** button, and then click **Settings** and **Control Panel**.

2. In the Control Panel, double-click Network (the **Network** icon).
3. Click **Services**, and under Network Services click **Server** and then click **Add**.
4. Select the **Network Service** panel and do the following:
   - Click **Microsoft Peer Web Server**. (You may be asked to insert the Windows NT 4.0 Installation CD.)
   - Check that the Windows NT 4.0 Installation CD is in the drive.
   - Choose the CD-ROM drive letter, if it is not pointing to the correct drive letter.
   - Click **Next/Continue**.
5. In the Microsoft Peer Web Services Setup screen, do the following:
   - Choose **Internet Serv. Manager**. (We recommend the HTML version.)
   - Click **World Wide Web Service**.
   - Click **OK**.

If a dialog box appears prompting you to create the WinNT\System32\inetsrv folder because it doesn't exist, click **Yes**.

The installation program chooses \Inetpub\wwwroot as the World Wide Web publishing folder by default.

6. Click **OK** to choose this folder when prompted.
7. If you are asked if you want to create this folder, click **Yes**.

That’s it. The system installs all necessary files and starts the Web server.

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