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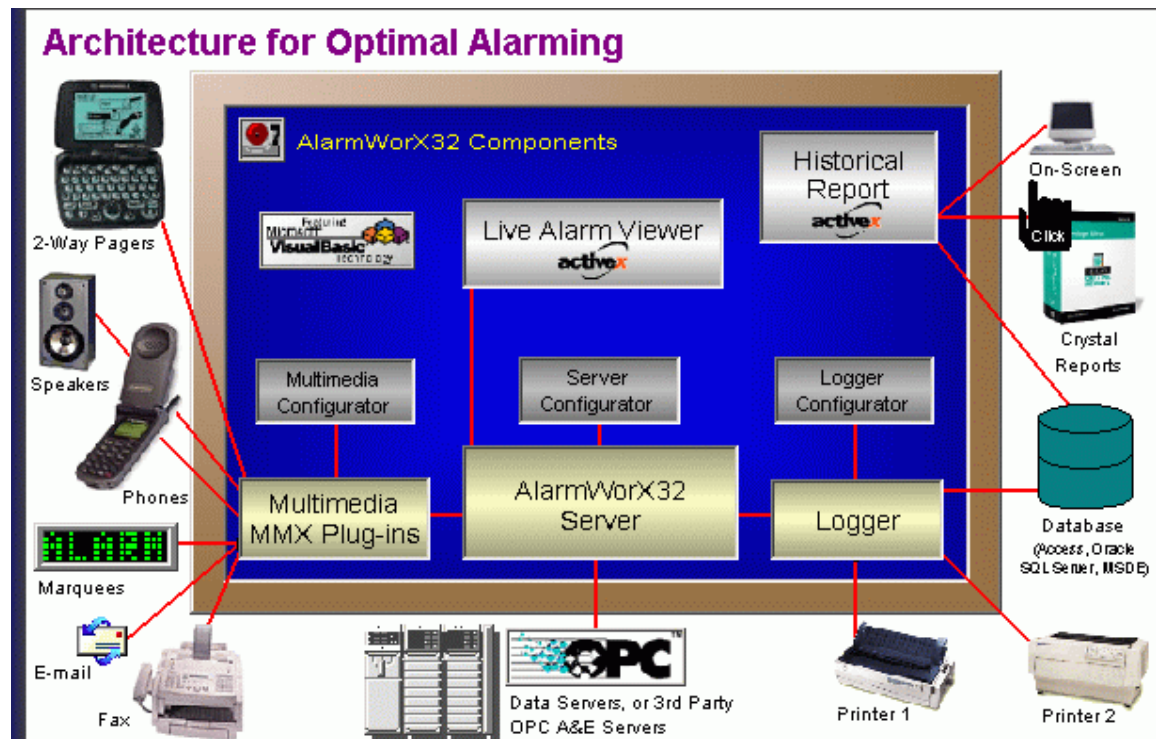
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About AlarmWorX32

AlarmWorX32 is a distributed enterprise-wide alarm and events management system. Available in the standard GENESIS32 suite of application, or as a stand-alone Open Series component, AlarmWorX32 offers the tools you need to deliver real-time alarm information throughout your system. AlarmWorX32 is a family of modular alarming products, including the Alarm Container, the Alarm Server, the Alarm Logger, the Alarm Viewer ActiveX, the Alarm Report ActiveX, and the Multimedia Server. The Alarm Container is an ActiveX container capable of embedding various ActiveX components. The AlarmWorX32 architecture is shown in the figure below.

AlarmWorX32 is the first OPC-compliant alarming product based on the OPC Alarm and Events (AE) specification. It can easily "Plug and Play" not only with ICONICS applications but also with other third-party OPC alarming software.



AlarmWorX32 Architecture

Alarm Container

AlarmWorX32 delivers a "Container" application, which can host not only the Live and Historical ActiveX controls, but also other third-party controls. It also offers the rich Microsoft Visual Basic for Applications (VBA) scripting language. Use this, or other containers (e.g., GraphWorX32) to fulfill your alarm viewing needs.

Alarm Server and Server Configurator

Alarm Configuration is easy with the Alarm/Event Configurator. You can define your own alarms on any OPC data and/or expression (complex combinations of OPC data), choosing from analog limit alarms, deviation, rate-of-change, and digital alarms. In keeping with the open standards employed throughout the GENESIS32 architecture, your alarm configurations are saved to a Microsoft Access, Microsoft SQL Server, or MySQL database.

Note: GENESIS32 supports MySQL version 5.0 using the MSSQL ODBC driver version 3.51.09. For more information about setting up MySQL databases for use with AlarmWorX32 go to the ICONICS application note entitled "GENESIS32 – Connecting to MySQL."

Once the alarms are configured, the OPC Alarm Server takes care of monitoring the live data, posting new alarms throughout your network. This component runs in the background (even as a Windows NT Service if desired), and is tuned to give your system the performance required of an alarming system.

The AlarmWorX32 Server receives field data from any OPC-compliant Data Access (DA) server and performs alarm detection and reporting based on the OPC data sent to any OPC Alarm and Event (AE) clients that subscribe. The AlarmWorX32 Viewer and the AlarmWorX32 Logger are two examples of clients that can receive these notifications from the server.

Alarm Logger

The **AlarmWorX32 Logger** logs alarms to Microsoft Access, Microsoft SQL Server, MySQL, or Oracle databases. It also can print out the information to one or even a redundant set of printers. You can create alarm reports and calculations with Microsoft's built in Visual Basic for Applications (VBA) scripting language. Alarm calculations can be performed on individual tags or groups of tags.

The logger can run as an executable or a service and is able to process alarm information from several alarm servers locally or over a network. The database is user-configurable (i.e. it allows autoflushing at a specified period, autostart, circular and append logging modes, etc.). Of primary importance to the database issue is performance. The logger is able to handle bursts of alarms due to the design and implementation of the logger's database handling.

Live Alarm Viewer ActiveX

The **Alarm Viewer** is a current-events alarm ActiveX. Because this component is an ActiveX, it can be placed in any ActiveX container application, such as GraphWorX32, Microsoft Visual Basic, or a Web page. The Alarm Viewer displays current alarm information and handles the user interface to the alarm system (such as alarm acknowledgement). The layout of information displayed, including sort order, color, font, and displayed data, is user-configurable.

You can drop this ActiveX Control in the provided AlarmWorX32 Container, within any GraphWorX32 HMI Display, an HTML Internet/intranet-based Web page, or any other ActiveX container, and it automatically configures itself to deliver live alarms in a scrollable window. You can easily customize the view via its properties page to control the colors, fonts, columns, rows, alarm filtering, subscriptions, hot-links, etc.

Alarm Report ActiveX

Alarms logged to a database can be a chore to sort through and analyze. The powerful **Historical Alarm Analysis (Report) ActiveX** solves this problem by easily creating filtered reports, pie charts, bar plots, and even exporting to custom Crystal Reports. At the click of a button, you can find out

which alarm is occurring most often and see if there are certain "trouble-spots," review downtime, and more.

The Alarm Report ActiveX allows reporting (user-configured or preconfigured) and graphing of alarms. The source of the Alarm data can be live alarms, alarms previously logged by the Alarm Logger, or a combination of both. Because the Alarm Report is an ActiveX, you can drop it into the AlarmWorX32 Container, within any GraphWorX32 HMI Display, an HTML Internet/intranet-based Web page, or any other ActiveX container.

Multimedia Server

AlarmWorX32 Multimedia is a distributed enterprise-wide alarm notification system that delivers real-time alarm information to you wherever you may be through various multimedia "agents," including from e-mail, pager, fax, voice, text-to-speech, phone, and marquees. AlarmWorX32 Multimedia can easily "Plug and Play" not only with ICONICS Alarm and Event Servers but also with other third-party OPC alarming software.

Multimedia Alarm Server Configurator

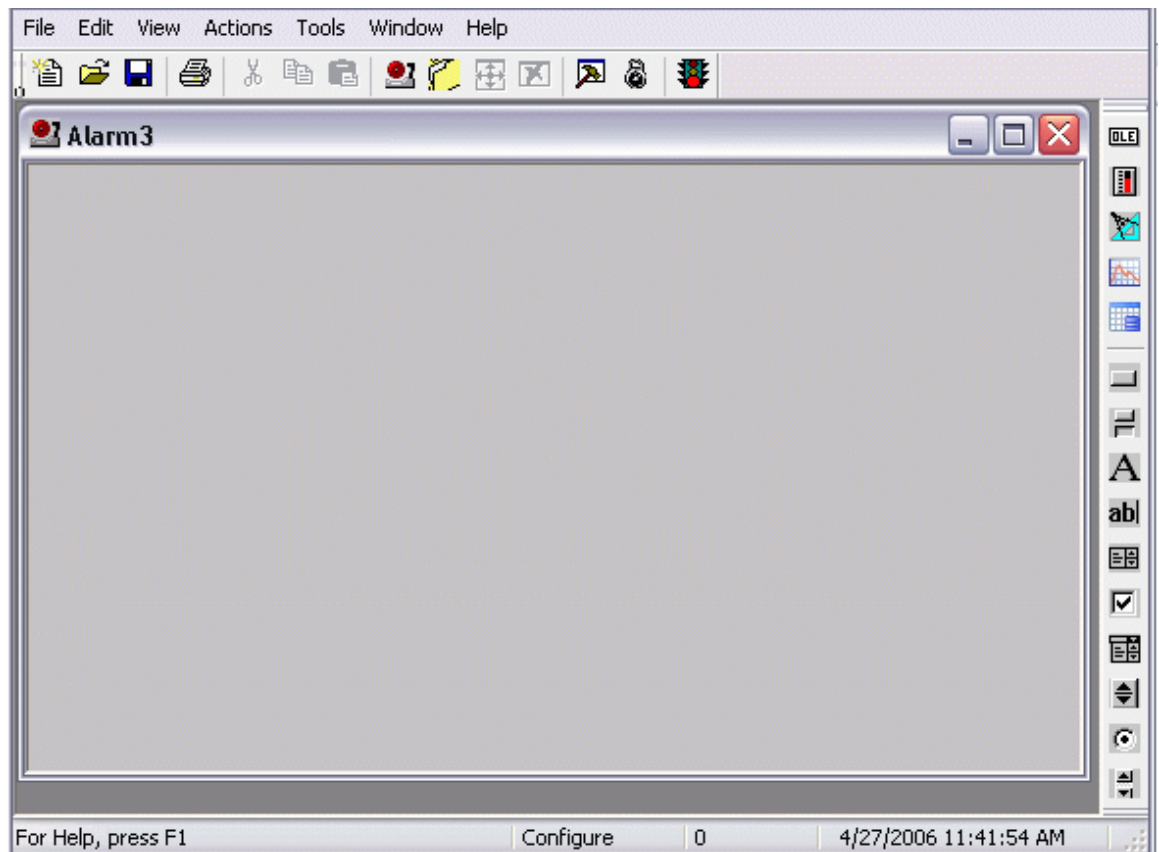
The Multimedia Configurator takes you through the steps to create alarm notification rules and action sets. There is even a step-by-step animated tutorial to help you configure your system. You can easily apply filters so only specific alarms trigger your multimedia announcements. When an alarm occurs, specify multiple notifications methods (e.g., page the technician, phone the supervisor, and email the QA lab.). You can also send notifications only to on-duty personnel using the built-in scheduling mechanism. Create sophisticated (yet easy-to-build) work schedules with vacation times, re-occurring patterns and more. There's even the concept of "roles" for various personnel.

Starting the AlarmWorX32 Container

Starting the AlarmWorX32 Container

To start the AlarmWorX32 Container:

1. From the Windows **Start** menu select **Programs > ICONICS GENESIS32 > AlarmWorX32 > AlarmWorX32**.
2. When you start AlarmWorX32, the AlarmWorX32 Container screen opens and a window appears, as shown in the figure below. If you do not install an ICONICS Software License, you will only be able to run the AlarmWorX32 Container in a two hour Demo mode. If you have a software license and do not wish to run in Demo mode, make sure that the license is properly installed.



AlarmWorX32 Container Screen and Alarm Window

The table below lists the basic AlarmWorX32 Container screen components and their functions. Refer to the **Screen Features** section for a complete description of the menu bar, toolbar, and status bar functions.

Component	Function
Title bar	Displays the name of the application and the name of the current screen displayed. To reposition the screen, click the title bar using the left mouse button and drag the screen to the desired location.
Control-menu box	Displays the Windows Control menu. Refer to your Windows documentation for more information about the control menu.
Minimize button	Reduces the window to an icon.
Maximize button	Enlarges the active application window to fill the entire screen.
Menu bar	Contains the various menus through which you can access AlarmWorX32 Container features, such as printing and saving to a file.
Toolbar	Contains toolbar buttons for certain useful menu items.

Work area	Displays the various AlarmWorX32 Container screens as you select them.
Status bar	Displays context-sensitive help, display mode, and the current time and date.

Using the Mouse and Keyboard

Mouse Functions Shortcut Keys

Mouse Functions

In Windows, you use the mouse to move a pointer (usually an arrow) on the screen. The pointer shows you where you are on the screen and enables you to point to and select application items.

In the AlarmWorX32 Container, you can use the mouse to:

- Select icons, buttons, and other screen objects.
- Resize AlarmWorX32 Container screens.
- Reposition windows and dialog boxes.
- Scroll through list boxes.
- Display context-sensitive help in the status bar for screen objects, such as icons, command buttons, and parameter fields.

The table below lists various mouse functions and descriptions with which you need to be familiar.

Function	Description
Left-click	Position the mouse pointer over an object, such as an icon or a command button, and press the left mouse button once.
Right-click	Inside an Alarm window, press the right mouse button once to view ActiveX properties.
Double-click	Position the mouse pointer over an object, and press the left button twice in quick succession.
Drag-and-drop	Click an object, and with the button still depressed, move the object to the desired location and release the button.
Select	Click an object once with the left mouse button, highlighting the object (enclosing the object in a rectangle with a dotted rule or in reverse color).
Move pointer over	Place the mouse pointer on top of an object, such as an icon or a command button, to display context-sensitive help for that object in the status bar.

Shortcut Keys

The keyboard is used to enter information into dialog boxes and to select menu options. The table below lists the available shortcut keys and their related functions (English version only).

Key	Function
ALT+F	Displays the File menu options available for the displayed screen
ALT+H	Displays the available Help menu options
ALT+T	Displays the Tools menu options available for the displayed screen
ALT+W	Displays the Window menu, which contains a list of available AlarmWorX32 Container screens
ALT+V	Displays the View menu options available for the displayed screen
ALT+A	Displays the Actions menu options available for the displayed screen
ALT+E	Displays the Edit menu options available for the displayed screen
ALT+F8	Starts the Macros dialog
ALT+F11	Starts the Visual Basic editor
CTRL+P	Prints the current screen
CTRL+N	Opens a new Alarm window
CTRL+O	Opens an existing Alarm window
CTRL+S	Saves the currently selected Alarm window
CTRL+T	Displays the Main toolbar
CTRL+U	Displays the status bar
CTRL+F	Sizes the Alarm window to the display
CTRL+G	Tiles all the open Alarm windows in the display
CTRL+H	Cascades all open Alarm windows in the display
CTRL+A	Toggles the current window between runtime mode and configuration mode
CTRL+M	Toggles the entire display between runtime mode and configuration mode
Del	Deletes an object from the display
F12	Inserts a new object in the display

F9	Launches the AlarmWorX32 Configurator
F4	Displays Properties window for object inserted in the display
F3	Opens the Display Preferences dialog
F2	Opens the Application Preferences dialog
F6	Launches security login in runtime mode
F7	Starts the Security Configurator
F1	Opens the Help topics file

AlarmWorX32 Container

The AlarmWorX32 Container application integrates the following components.

- **Alarm Logger Configurator**
- **Alarm Viewer ActiveX**
- **Alarm Report ActiveX**
- **Alarm Server Configurator**
- **AlarmWorX32 Container**

This is a multiple document interface (mdi) container that integrates the various ActiveX alarm components and configuration tools into one user-friendly tool. Menus and toolbar items are provided to allow easy access to all configuration and runtime features of all of the AlarmWorX32 components. It also adds Microsoft VBA (Visual Basic for Applications) scripting support.

AlarmWorX32 includes many features that not only add functionality to the product but also make it easier to use. The AlarmWorX32 Container has Unicode support and enhanced international language support, as well as global aliasing support. The Container also includes VBA integration.

See Also

About the AlarmWorX32 Container

Menus

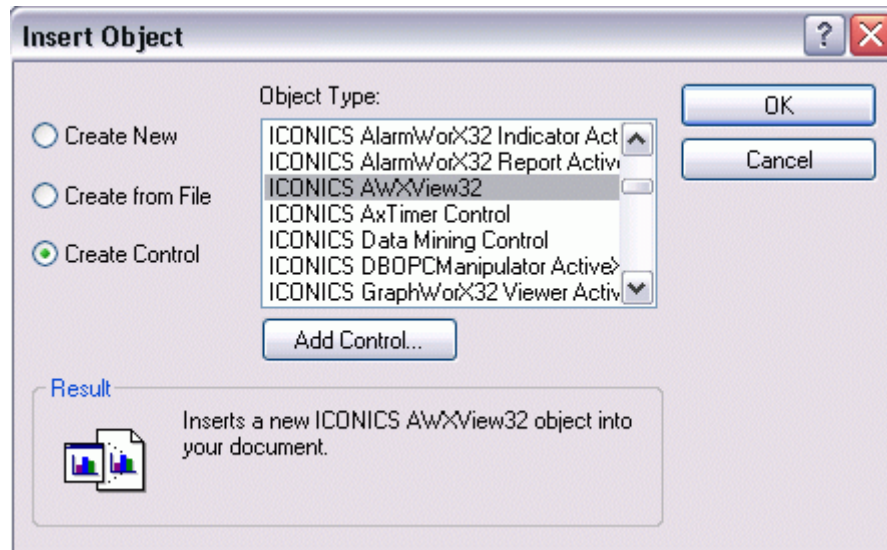
AlarmWorX32 Security

VCRWorX32 Data Replay

About the AlarmWorX32 Container

The AlarmWorX32 Container is a fully VBA-enabled application, which allows for a high degree of customization and functionality. A container is an application that supports embedding of ActiveX objects, which are available from the **Edit** menu and the **ActiveX** toolbar.

To insert an ActiveX object from the **Edit** menu, choose **Insert New Object**, or press the shortcut key **F12**. This opens the **Insert Object** dialog box, which is shown in the figure below. You can select an existing ActiveX object from the list, or you can create a new ActiveX object. You can also open the **Insert Object** dialog box by clicking the **OLE** button on the **ActiveX** toolbar.



Insert Object Dialog Box

Menus

This section explains the various features available from the menu bar, toolbar, and status bar that allow you to manage your database records and use AlarmWorX32 easily and efficiently.

The menus in the AlarmWorX32 Container enable you to change the default settings for many elements of the container. You can also use the menus to add new alarms and open different elements of the AlarmWorX32 application.

- **File menu**
- **Edit menu**
- **View menu**
- **Actions menu**
- **Tools menu**
- **Window menu**
- **Help menu**

Note: The **File** menu functions vary according to the screen that is displayed. (This is documented where appropriate.)

File Menu

The **File** menu commands are listed in the table below.

Note: If an Alarm window is not open, the **Close**, **Save**, and **Print** commands are disabled.

File Menu Commands

Command	Shortcut Keys	Function
New	CTRL+N	Creates a new alarm display.
Open	CTRL+O	Opens an existing alarm display.
Close		Closes the current alarm display.
Save	CTRL+S	Saves the current display file.
Save As		Saves current display file with a new name or file extension.
Print	CTRL+P	Prints the current alarm display.
Print Preview		Displays a preview of the screen before printing.
Print Setup		Configures printer settings.
Recent File		Lists the last four files opened in AlarmWorX32.
Exit		Closes the application.

See Also

Printing

Printing

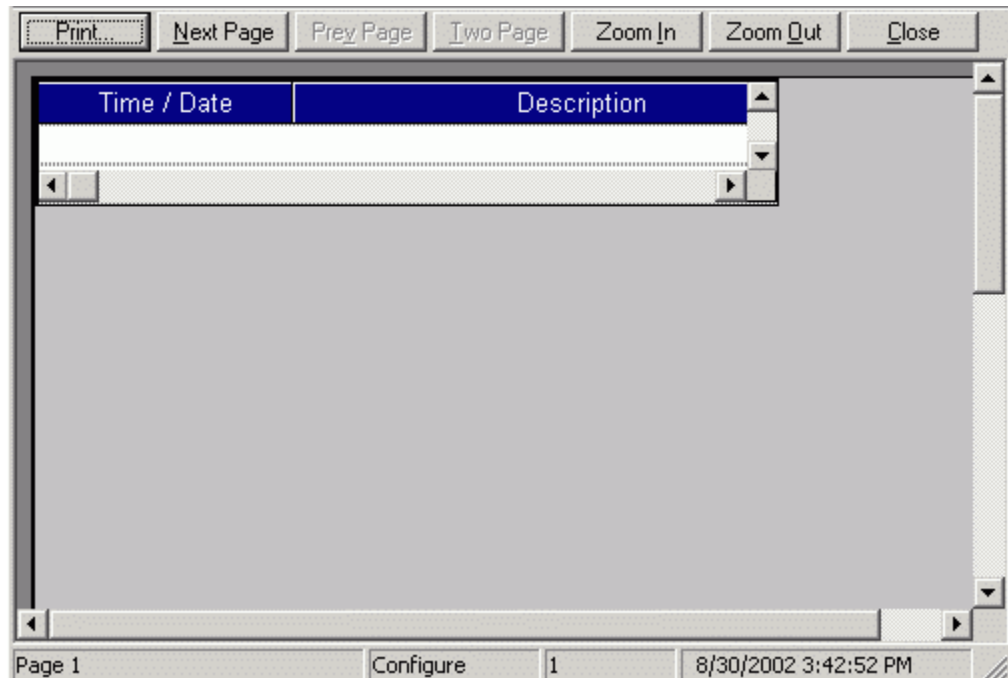
Using AlarmWorX32, you can perform any of the following printer functions:

- Print the current window.
- Preview the screen information before printing. Refer to the **Print Preview** section for more information.
- Print only the **Help** instructions for the currently selected alarm.

To configure a printer, you need to define the appropriate parameters in the Microsoft Windows Control Panel. Refer to your Windows documentation for complete information.

Print Preview

To preview the screen information before printing, choose **Print Preview** from the **File** menu. The **Print Preview** screen will appear as shown below. The figure below shows a print preview of the Alarm window. The title bar indicates the file that is currently displayed.



Print Preview Screen

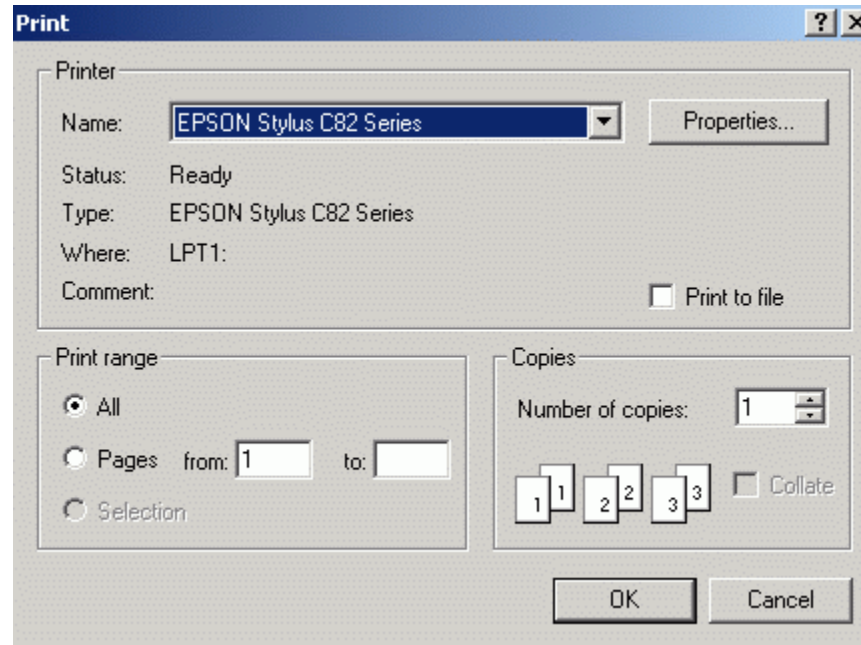
The table below lists the command buttons found in the **Print Preview** screen and their functions. These buttons enable you to view the print preview information before you print.

Button	Function
Print	Displays the Print dialog box
Next Page	Displays the next page in a multiple-page print preview
Previous Page	Displays the page that immediately precedes the current page in a multiple-page print preview
Two Page	Displays two pages simultaneously in a multiple-page print preview
Zoom In	Enlarges the view of the Print Preview screen from normal view
Zoom Out	Decreases the view of the Print Preview screen to a full-page view, enabling you to see how the entire printed page will look
Close	Exits the Print Preview screen and returns to the normal view

To print the document, click **Print** to display the **Print** dialog box. For more information on printing, refer to the **Printing Screen Information** section. If you decide not to print, click **Close** to exit the Print Preview screen.

Printing Screen Information

To print the information on the screen, choose **Print** from the **File** menu, or press the shortcut keys **CTRL+P**. The **Print** dialog box appears as shown below. When you are ready to print, click **OK**. AlarmWorX32 prints all records contained within the scroll window on the screen.



Print Dialog Box

When the information is sent to the print queue, the **Printing Status** dialog box appears on the screen. The **Printing Status** dialog box indicates the number of records printed and the page that is printing.

The **Print** dialog box indicates the configured printer to which this information prints. Refer to your Windows and printer documentation for complete information about how to configure a printer.

Cancel Printing

To cancel printing, click **Cancel** in the **Printing Status** dialog box. This immediately halts printing, and the print job is removed from the print queue.

Edit Menu

Edit Menu

The **Edit** menu commands are listed in the table below.

Edit Menu Commands

Command	Shortcut Keys	Function
Cut	CTRL+X	Cuts the selected object from the current view and places it on the clipboard.
Copy	CTRL+C	Copies the selected object to the clipboard.

Paste	CTRL+V	Pastes the last object placed on the clipboard.
Paste Special		Pastes the last object placed on the clipboard (with special options).
Delete Object	DEL	Deletes the selected object from the Alarm window.
Insert New Object	F12	Opens the Insert Object dialog box, which allows you to embed an ActiveX control in the Alarm window.
Links		Edits linked objects.
Properties		Opens the ActiveX Properties dialog box.

See Also

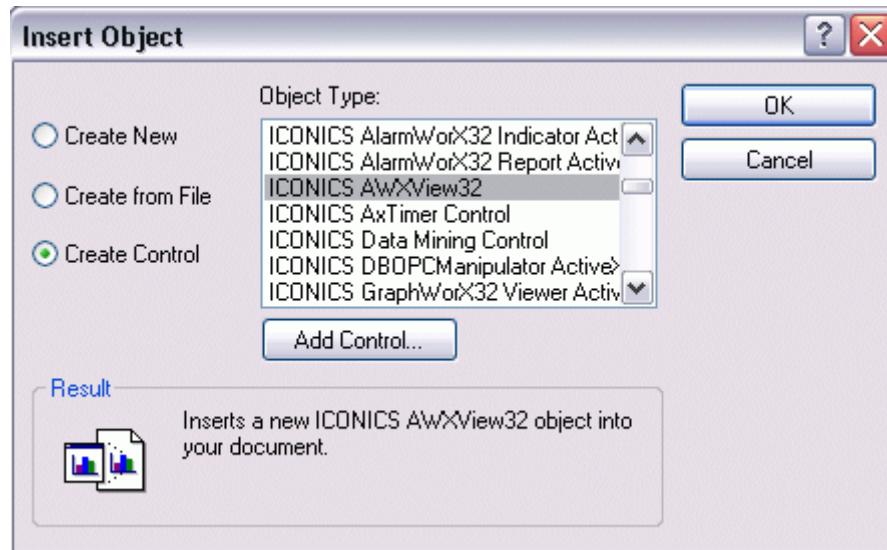
Inserting Objects

Inserting Objects

Selecting **Insert New Object** from the **Edit** menu opens the **Insert Object** dialog box, shown in the figure below, which allows you to embed an ActiveX control in the container window. Alternatively, integrated ActiveX Controls can be inserted by selecting the corresponding button on the **ActiveX** toolbar. To configure the properties for an object, either double-click on that object or right-click and select the **Properties** from the pop-up menu.

The following options are available in the Insert Object dialog box:

- **Create New:** Inserts the selected object into the container. Selecting this tab brings up the following dialog, which offers a list of object types to choose from as shown below:
- **Create From File:** Inserts a user-specified object into the container that is created from an existing file. Click the **Browse** button to select a file.
- **Create Control:** Adds an ActiveX control to the **Object Type** list. Click the **Add Control** button to browse for a file.



Inserting an Object Into the Container

View Menu

The **View** menu commands are listed in the table below.

View Menu Commands

Command	Shortcut Keys	Function
Properties Window	F4	Opens the Properties window, which shows alphabetical and categorical properties for the currently selected ActiveX object.
Display Preferences	F3	Opens the Display Preferences dialog.
Application Preferences	F2	Opens the Application Preferences dialog.
Main Toolbar	CTRL+T	Toggles the AlarmWorX Main toolbar.
ActiveX Toolbar	CTRL+Y	Toggles the ActiveX toolbar.
Status Bar	CTRL+U	Toggles the status bar, which indicates the status of the container, which mode you are in (configuration or runtime), and the date and time. When navigating through the menu items, whichever item the mouse is over will be displayed in the status bar.
Object Layout		Controls the positioning of currently selected ActiveX objects.
Size to Display	CTRL+F	Maximizes the size of the currently selected ActiveX object within the open Alarm window.

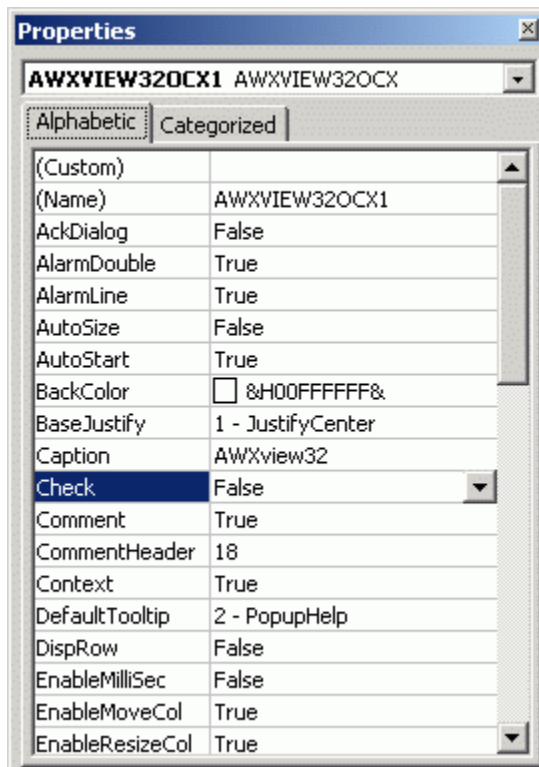
Tile to Display	CTRL+G	Changes the size of all ActiveX objects to fit them evenly into the Alarm window.
Cascade	CTRL+H	Overlaps all of the open ActiveX objects.
Grid	CTRL+SHIFT+G	Toggles the grids available in configuration mode.
Select Language	CTRL+ALT+U	Specifies the language to be used in the from the Select Language dialog box. Select the language you wish to use for your system and click OK . For navigation purposes, use the radio buttons and check boxes in the List section.

See Also

Properties Window
Display Preferences
Application Preferences
Status Bar and Toolbars
Object Layout
Selecting Languages

Properties Window

Selecting **Properties Window** from the **View** menu displays alphabetical and categoral properties for the currently selected object, as shown in the figure below. This feature is discussed in the ActiveX Object Pop-up Menu section.

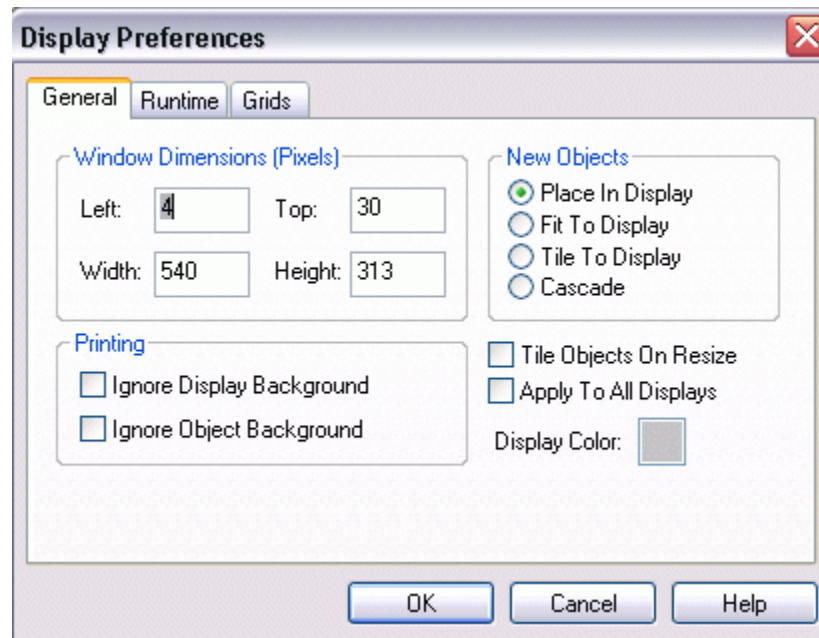


Properties Window

Display Preferences

Display Preferences

Selecting **Display Preferences** from the **View** menu opens the **Display Preferences** dialog box, as shown in the figure below. This dialog allows you to configure or change the appearance of the Alarm Container display.



Display Preferences Dialog

See Also

[General Tab](#)

[Runtime Tab](#)

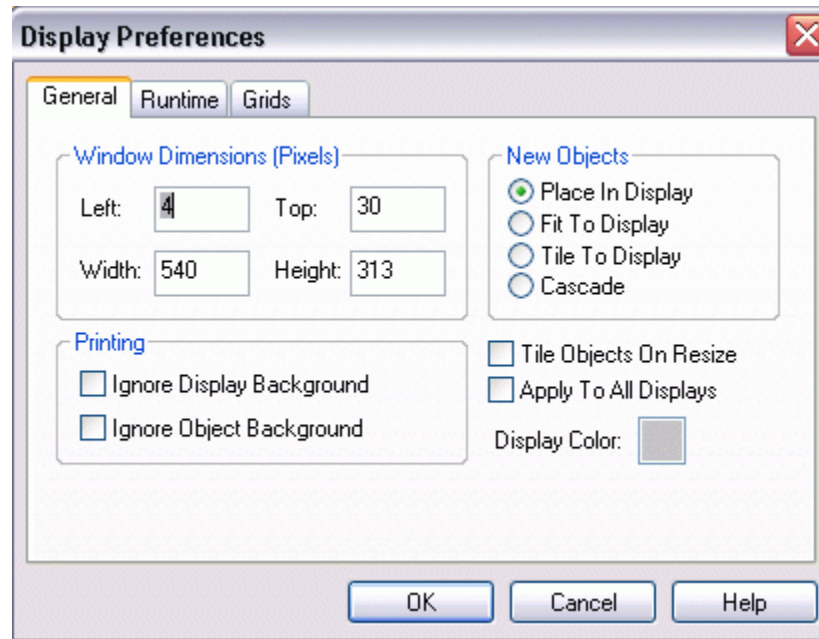
[Grids Tab](#)



[View Menu](#)

General Tab

The **General** tab of the **Display Preferences** dialog box, shown in the figure below, sets the size of the display window, configures the arrangement of open windows, changes the display color, and configures the display for printing.



Display Preferences: General Tab

Window Dimensions

The **Window Dimensions** field specifies dimensions (in pixels) from the left and the top of the window, as well as the width and the height of the window.

New Objects

The **New Objects** section positions the object with respect to the display. You can place the object in the display, size the object to the display, tile the object to the display, or arrange the object in the cascade mode.

Printing

Under the **Printing** section, you can choose to ignore the display background and/or ignore the object background while printing. Ignoring the background saves ink while printing displays.

If **Ignore Display Background** is checked upon printing a display, the background color of the entire display will be temporarily changed to white. The original display background color will be restored immediately after printing. If

Ignore Object Background is checked upon printing a display, all background colors of each individual area within an ActiveX Viewer will be temporarily changed to white. The original colors will be restored immediately after printing.

Apply to All Displays

If checked, the parameters defined in the **General** tab of the **Display Preferences** dialog box will be applied to all displays.

Tile Objects on Resize

If checked, objects in the display are automatically tiled when the display is resized.

Display Color

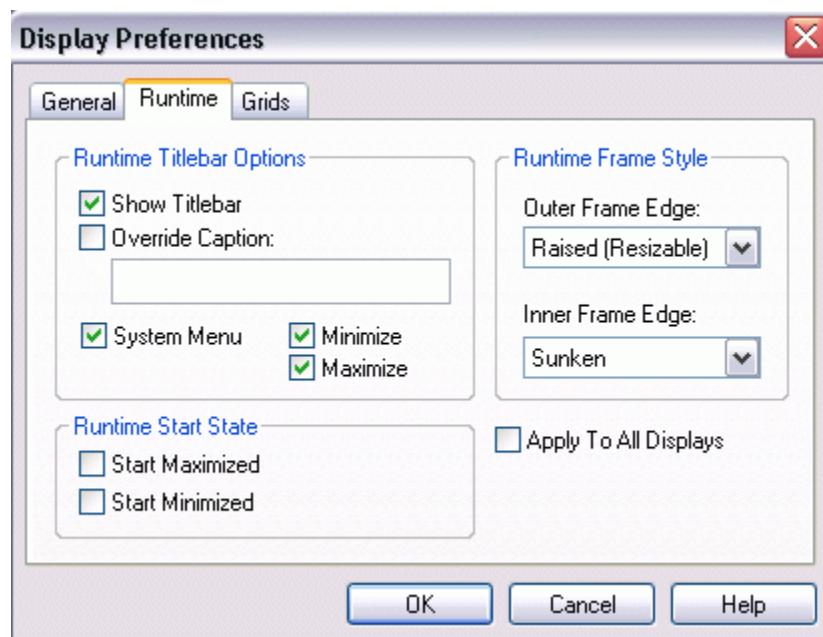
The **Display Color** field allows you to choose a color for the display. Click the color box to open the Color Palette.

Runtime Tab

The **Runtime** tab in the **Display Preferences** dialog box, shown in the figure below, configures the way the window will appear in runtime mode. As you can see, the **Runtime** tab contains the following features:

- Runtime title bar options
- Runtime frame style
- Runtime start state

Note: Checking the **Apply To All Displays** check box applies the settings to all currently open displays.



Display Preferences: Runtime Tab

Runtime Title Bar Options

If the **Show Title Bar** box is checked, the title bar of the window will be displayed during runtime mode. Similarly, if the **Override Caption** box is checked, you may enter a caption that you would like to appear in the title bar during runtime.

The **System Menu**, **Minimize**, and **Maximize** options all refer to buttons that may appear in the title bar during runtime. When all of these boxes are checked, all of the indicated buttons show up in the title bar. If you do not want a button to appear in the title bar, simply click the box that applies to that button to remove the check mark. Hiding these buttons helps to ensure the functionality of the window during runtime mode because the operator can neither close nor change the size of the window.

Runtime Frame Style

The **Outer Frame Edge** drop-down list enables you to choose from the following three frame styles:

- None

- Raised (resizable)
- Raised (fixed size)

Selecting the **Raised (Fixed Size)** option helps to maintain the functionality of the window in runtime mode because the operator is not allowed to change the configured display.

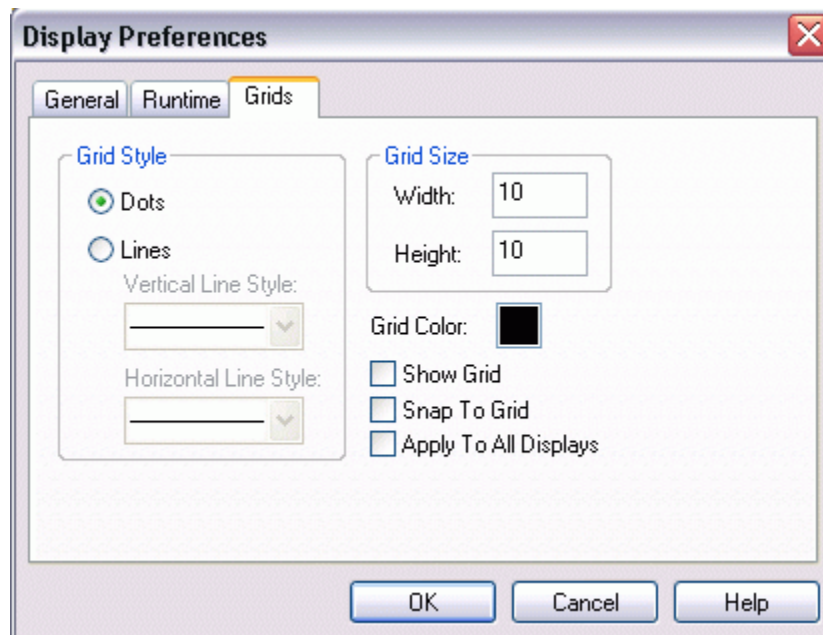
The **Inner Frame Edge** drop-down list gives you the option to have a sunken inner frame edge.

Runtime Start State Section

The **Runtime Start State** feature enables you to choose how the window will appear during runtime mode. Check the appropriate box to minimize or maximize the window.

Grids Tab

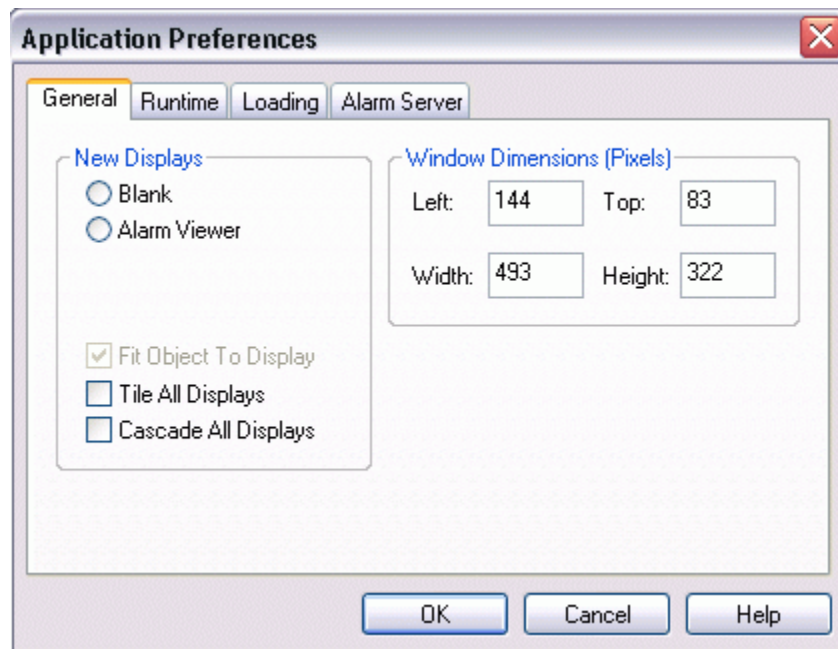
The **Grids** tab in the **Display Preferences** dialog box, shown in the figure below, configures the type, style, size, and color of the display grid. Selecting **Show Grid** makes the grid visible. Selecting **Snap To Grid** makes all borders of the display objects align with the grid lines when they are moved across the display area. The grids are not available when the display is in animation mode.



Display Preferences: Grids Tab

Application Preferences

To configure or change the application preferences for the container, select **Application Preferences** from the **View** menu, or press the shortcut key **F2**. This opens the **Application Preferences** dialog box, as shown in the figure below.



Application Preferences Dialog Box

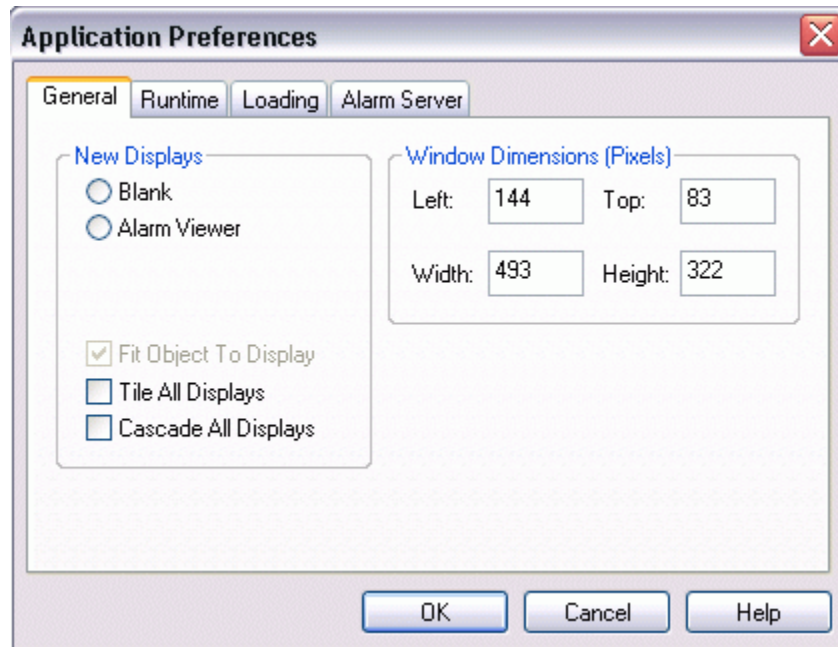
See Also

General Tab
Runtime Tab
Loading Tab
Alarm Server Tab

General Tab

The **General** tab in the **Application Preferences** dialog box, shown in the figure below, enables you to:

- Configure new displays.
- Define how a new Alarm Viewer will be placed in the display.
- Define the size of the window.



Application Preferences: General Tab

New Displays

You can choose to have the new display by default appear either as a **Blank** window or as a window with an embedded Alarm Viewer.

Checking **Fit Object to Display** maximizes the size of the object in the container window.

Checking **Tile All Displays** changes the size of your objects to fit them into the evenly into the display window. This is helpful if you want to compare data in different objects or if you are moving back in forth from object to object.

Checking **Cascade All Displays** resizes all of the open objects and overlaps them so that you can see the top and left side of every open object window.

Window Dimensions

The **Window Dimensions** field specifies dimensions (in pixels) from the left and the top of the window, as well as the width and the height of the window.

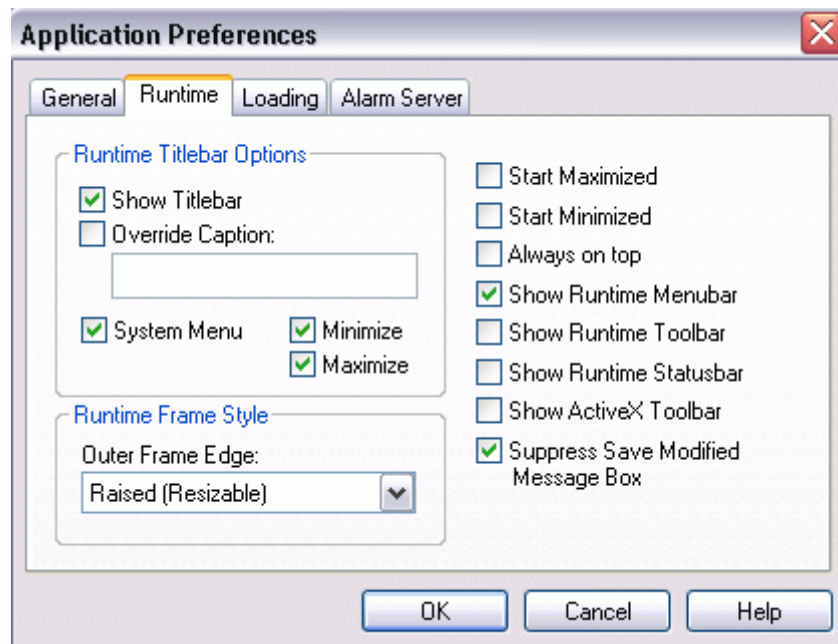
Runtime Tab

The **Runtime** tab in the **Application Preferences** dialog box, shown in the figure below, configures runtime mode options for the entire AlarmWorX32 application. As you can see, the **Runtime** tab contains the following features:

- Runtime title bar options
- Runtime frame style
- Runtime settings

The right side options determine how the application will start in runtime and how you want the application to appear in runtime mode. Additionally, the last two options let the you decide if you want to view the ActiveX Toolbar (described later) and if you want the save changes dialog to appear when you make changes in runtime and then exit the application. If the **Suppress Save**

Modified Message Box check box is checked, you will not be warned to save all changes made to a display while in runtime mode, and these changes will be lost.



Application Preferences: Runtime Tab

Runtime Title Bar Options

If the **Show Title Bar** box is checked, the title bar of the window will be displayed during runtime mode. Similarly, if the **Override Caption** box is checked, you may enter a caption that you would like to appear in the title bar during runtime.

The **System Menu**, **Minimize**, and **Maximize** options all refer to buttons that may appear in the title bar during runtime. When all of these boxes are checked, all of the indicated buttons show up in the title bar. If you do not want a button to appear in the title bar, simply click the box that applies to that button to remove the check mark. Hiding these buttons helps to ensure the functionality of the window during runtime mode because the operator can neither close nor change the size of the window.

Runtime Frame Style

The **Outer Frame Edge** drop-down list enables you to choose from the following three frame styles:

- None
- Raised (resizable)
- Raised (fixed size)

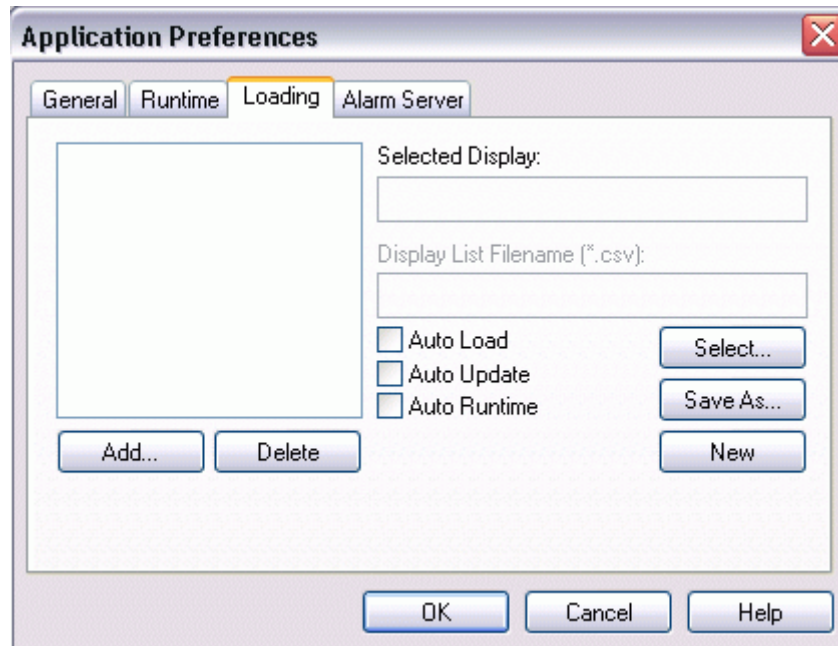
Selecting the **Raised (Fixed Size)** option helps to maintain the functionality of the window in runtime mode because the operator is not allowed to change the configured display.

Loading Tab

The **Loading** tab in the **Application Preferences** dialog box, shown in the figure below, enables you to add or delete previously created displays during startup. If **Auto Load** is checked, the selected displays will be loaded upon startup of AlarmWorX32. If **Auto Update** is checked, AlarmWorX32 will automatically add the existing displays to the list of displays to be loaded during

the next startup. If **Auto Runtime** is checked, the selected displays will automatically start in runtime mode upon startup.

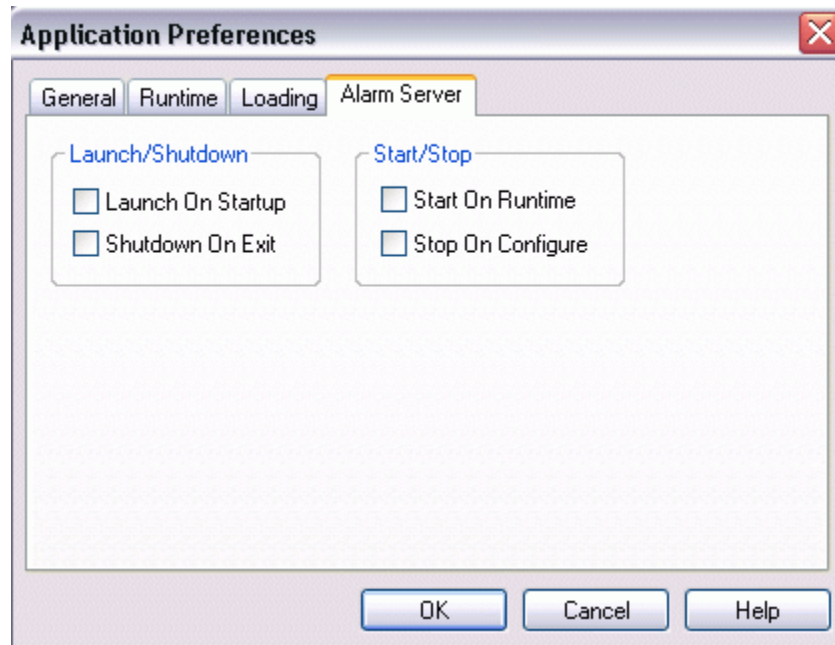
You can also select displays to add to the display startup list by simply clicking **Add**, which opens a **Display** dialog box. Similarly, you can delete a display from the startup list by selecting it and then clicking **Delete**. For this feature to go into effect, you must first save the display startup list as a .csv file. You can do this by clicking **Save As** to choose a directory for the .csv file that contains all the names of the AlarmWorX32 displays to be loaded upon startup. In addition, you can click **Select** to select a previously saved .csv file with the names of displays to be loaded the next time AlarmWorX32 starts up.



Application Preferences: Loading Tab

Alarm Server Tab

The **Alarm Server** tab in the **Application Preferences** dialog box, shown in the figure below, configures the behavior of the ICONICS Alarm and Events Server.



Application Preferences: Alarm Server Tab

The server behaves according to the following selections:

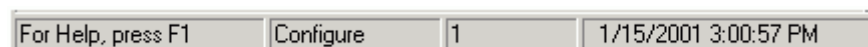
- **Launch on Startup:** Launches the alarm and events server upon startup of the AlarmWorX32 Container application.
- **Shutdown on Exit:** Attempts to shut down the alarm and event server upon the shut down of the container. Other applications may still keep the server running.
- **Start on Runtime:** Starts the alarm and events server when the alarm container enters runtime.
- **Stop on Configure:** Attempts to shut down the alarm and event server when the alarm container exits runtime. Other applications may still keep the server running.

Status Bar and Toolbars

The status bar and toolbar are objects in the AlarmWorX32 Container screen. The information contained in the status bar varies depending upon the current screen displayed and the current system configuration and activity. The toolbars provide a convenient way to choose commands that are also available in the menu bar.

Status Bar

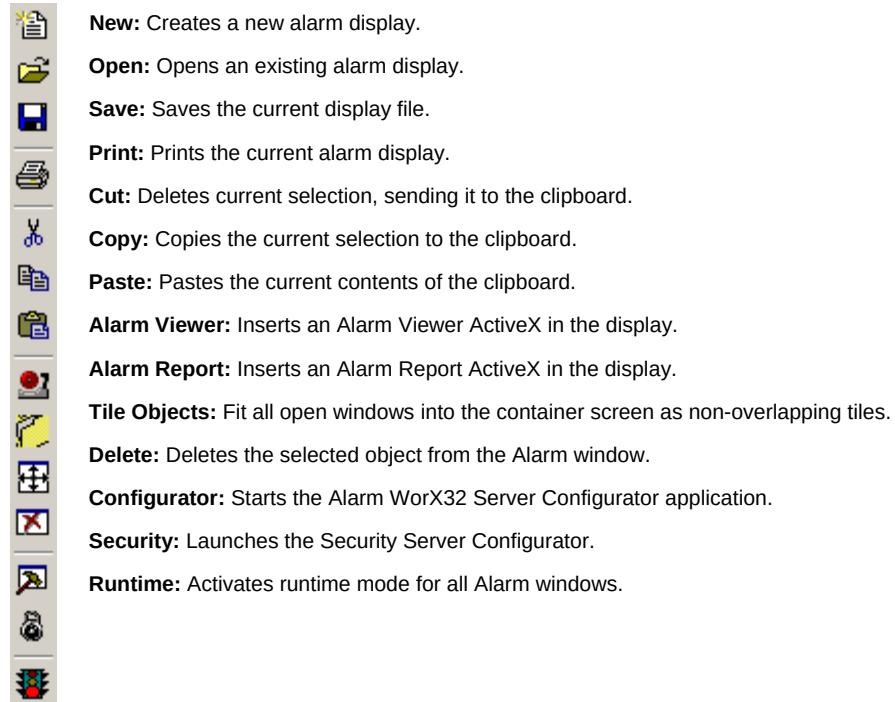
The status bar, shown in the figure below, is located at the bottom of the AlarmWorX32 screen. To display or hide the status bar, choose the **Status Bar** command in the **View** menu, or press the shortcut keys **CTRL+B**. The left side of the status bar describes the functions of menu commands as you navigate through each menu. This side also describes the functions of toolbar buttons. When you move the mouse pointer over a toolbar button, the function of the button is displayed in the status bar. The status bar also indicates the display mode (runtime or configure), the number of open ActiveX objects, the current time, and the current date.



Status Bar

Toolbars

The **Main** toolbar is located below the menu bar. As shown in the figure below, the **Main** toolbar contains buttons for different functions available in AlarmWorX32.



The ActiveX toolbar enables you to select Active X objects. For more information, refer to the **ActiveX Toolbar** section.

See Also

ActiveX Toolbar

ActiveX Toolbar

The **ActiveX** toolbar consists of two main parts. The **OLE** button is used to display the ActiveX Control Selection dialog, while the other buttons represent additional ActiveX controls including:

- GraphWorX32 ActiveX Control
- AlarmWorX32 Viewer ActiveX Control
- AlarmWorX32 Report ActiveX Control
- AlarmWorX32 Indicator ActiveX Control
- TrendWorX32 Viewer ActiveX Control
- GraphWorX32 Gauge ActiveX Control

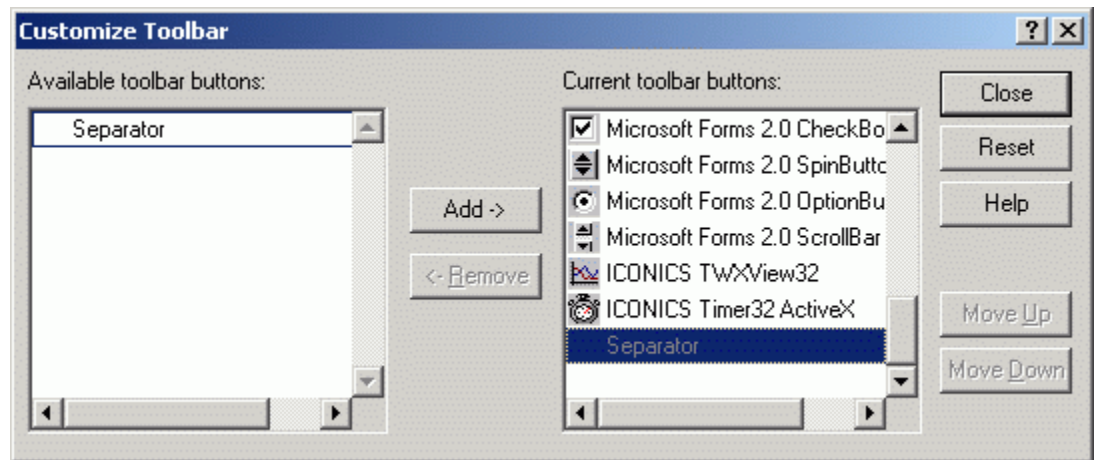


ActiveX Toolbar

The other buttons represent common ActiveX controls, which are supported by and can be referenced in VBA.

Customizing the ActiveX Toolbar

You can add, remove, or relocate items on the **ActiveX** toolbar within AlarmWorX32. To access the **Customize Toolbar** dialog box, shown in the figure below, simply right-click the toolbar and the dialog box will appear.



Customize Toolbar Dialog Box

To remove a button from the **ActiveX** toolbar, select the button from the **Current toolbar buttons** list on the right and click **<-Remove**. Similarly, if you wish to add a button to the toolbar, select the button from the **Available toolbar buttons** on the left and click **Add->**.

Click **Move Up** and **Move Down** to relocate buttons on the toolbar. This feature is helpful because there may be a button on the toolbar that you do not use, in which case it should be removed.

Note: All functions of the **ActiveX** toolbar will either be in the list of available buttons or in the list of current toolbar buttons. It is impossible to remove a function entirely from the dialog box.

Object Layout

To define how current objects in your display are shown, select **Object Layout** from the **View** menu and choose one of the following options:

- **Size to Display:** maximizes the size of the object in the container window. This item is not available if no object is selected.
- **Tile to Display:** changes the size of your objects to fit them into the evenly into the display window. This is helpful if you want to compare data in different objects or if you are moving back in forth from object to object.
- **Cascade:** resizes all of the open objects and overlaps them so that you can see the top and left side of every open object window.

Selecting Languages

The **Select Language** function on the **View** menu allows you to choose which language to use in your display. Choosing **Select Language** from the **View** menu opens the **Select Language** dialog box, shown in the figure below.



Select Language Dialog Box

Define the parameters listed in the table below. Then click **OK** to return to the work area.

Select Language Parameters

Parameter	Description
List	Lists available languages. Depending on which item you have selected, the view on the left will change. If English is checked, the languages will appear as their English name. If Localized is checked, the languages will appear with the native country in parentheses (for languages with several dialects only). When Native is checked, the languages are displayed the way they would be written in that language.
Installed Locales Only	If this is checked, local languages appear in the box.
Available Language Translations Only	Checking this box allows you to choose from available language translations only.

Actions Menu

The **Actions** menu commands are listed in the table below.

Actions Menu Commands

Command	Shortcut Keys	Function
Animation Mode	CTRL+A	Animates or deanimates the active Alarm window in the display.
Runtime Mode	CTRL+U	Activates runtime mode for all Alarm windows.

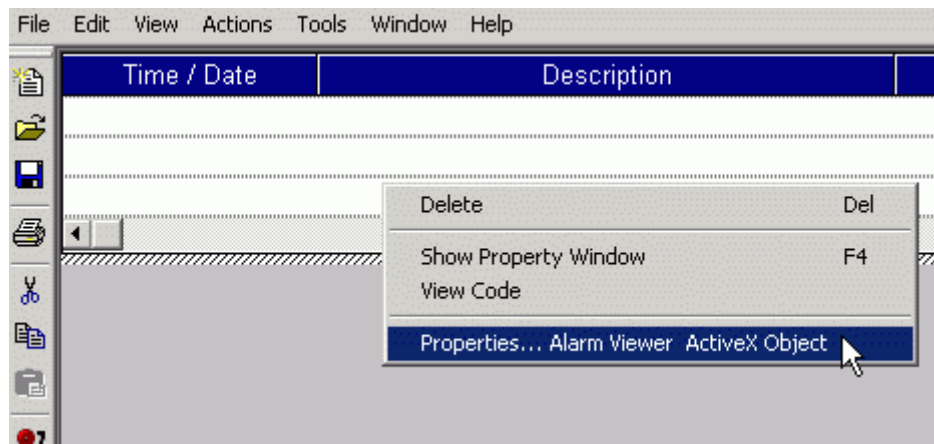
Note: You can also toggle between configuration mode and runtime mode by using the **Traffic Light** button on the **Main** toolbar. When the light is showing Red, the application is in configuration mode. When the light is showing Green, the application is in runtime mode.

See Also

ActiveX Object Pop-up Menu

ActiveX Object Pop-up Menu

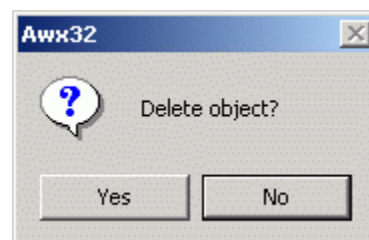
Once the object of choice is inserted in the container, right-clicking on the object displays a pop-up menu, as shown in the figure below.



ActiveX Object Menu

Delete

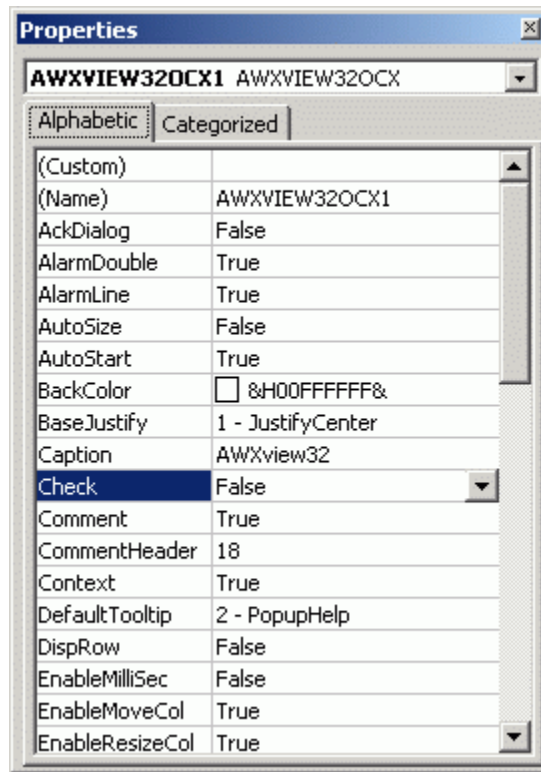
Selecting **Delete** from the pop-up menu simply deletes the object from the display. Click **Yes** to delete the object, as shown in the figure below.



Warning

Show Property Window

Selecting **Show Property Window** from the pop-up menu displays the Properties relevant to the object, as shown in the figure below.



Properties Window

This window displays, in alphabetic or categorized form, all the properties applicable to the objects within the container. The **Properties** window contains all configurable options for the selected window, whether it is the ActiveX object or the ActiveX Control or the entire display.

You can switch from window to window or from window to display by either clicking on the desired area that displays the **Properties** window or choosing it from the drop-down list at the top of the **Properties** window. To edit an option in the **Properties** window, click on that field and either use the available drop-down list or simply type in your changes. These properties can be also be modified using another the **Properties** dialog displayed by selecting **ActiveX Object/Properties** from the **Edit** menu. This item is also accessible through the **Edit** menu, which comes up if you right-click on the appropriate window.

View Code

Selecting **View Code** from the pop-up menu opens the Microsoft Visual Basic Editor as shown below, which allows you to both view and edit the code pertaining to the object.

ActiveX Object Properties Dialog

Selecting **Properties** from the pop-up menu opens the Properties dialog box for the specific ActiveX object. This menu item (specifically displaying the name of the ActiveX object inserted) also becomes available in the **Edit** menu once an object is inserted in the Container. Note that certain ActiveX properties can only be configured from the ActiveX Properties dialog box.

Note: For information about Properties for a specific ActiveX object, please see the Help documentation for that object.

Tools Menu

The **Tools** menu commands are listed in the table below.

Tools Menu Commands

Command	Shortcut Keys	Function
Macros	ALT+F8	Runs a macro using the Macros dialog box.
Visual Basic Editor	ALT+F11	Opens the Visual Basic for Applications (VBA) IDE environment for developing customized VBA modules.
Launch Configurator	F9	Starts the AlarmWorX32 Server Configurator application, which has all the tools required for configuring the Alarm Server.
Logger Configurator		Starts the AlarmWorX32 Logger Configurator application, which has the tools required for configuring alarm logging and provides a comprehensive set of tools for monitoring and troubleshooting.
Security Login	F6	Opens the security login screen for logging into the Security Server (runtime mode only).
Security Configuration	F7	Launches the Security Server Configurator (configuration mode only).
Set Working Directory	F8	Specifies a custom directory in which all application configuration files will be stored and retrieved.
VCRWorX32 Data Replay		Launches the VCRWorX Control Panel, which enables you to replay historical data. For more information, please see the VCRWorX32 help documentation.
Publish to HTML		Launches the Web Publishing Wizard, which allows you to export (generate) an HTML file based on your AlarmWorX32 display file and/or publish the HTML file to a Web server. For more information, please see the Web Publishing Wizard Help documentation.
Configure for Windows CE		Starts Pocket AlarmWorX configuration mode.
Windows CE Preferences		Configures settings for downloading the configuration to a Pocket PC or CE device.

See Also

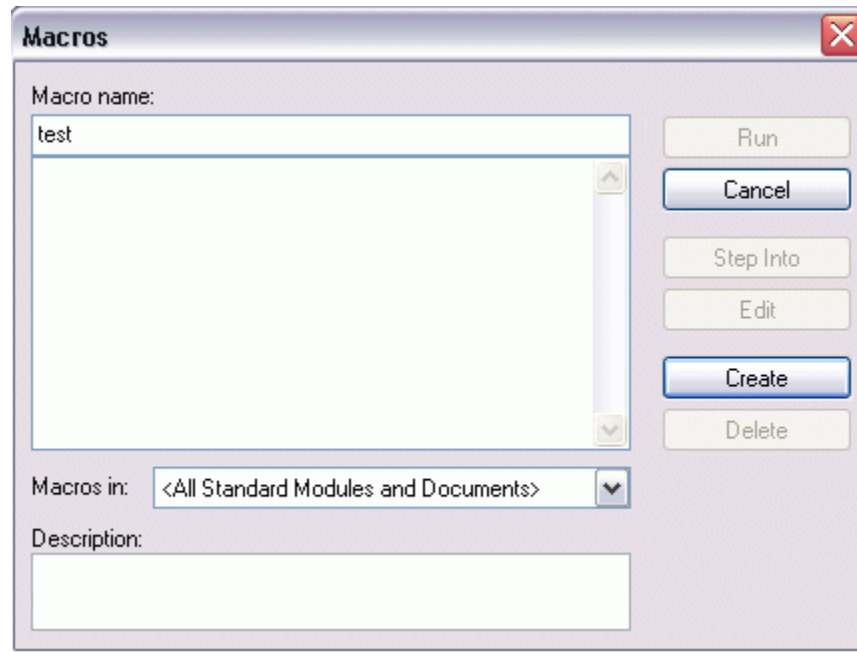
Macros

Security

Downloading GENESIS32 Configuration Files to Your Pocket PC

Macros

Selecting **Macros > Macros** from **Tools** menu opens the **Macros** dialog box, as shown in the figure below. Type a name for the macro and then click the **Create** button. This opens the Microsoft Visual Basic Editor, where you can create a new macro. You can run an existing macro by entering the name of the macro in the **Macro Name** field and clicking the **Run** button.



Creating and Running Macros

The **Windows CE** submenu refers to the capability of configuring Pocket AlarmWorX displays to be downloaded to the CE device. To start AlarmWorX CE configuration mode, choose **Configure for Windows CE** from the **Windows CE** submenu. The Windows CE options are not available if Pocket AlarmWorX is not installed on your PC. The CE features are further explained in the Pocket AlarmWorX documentation.

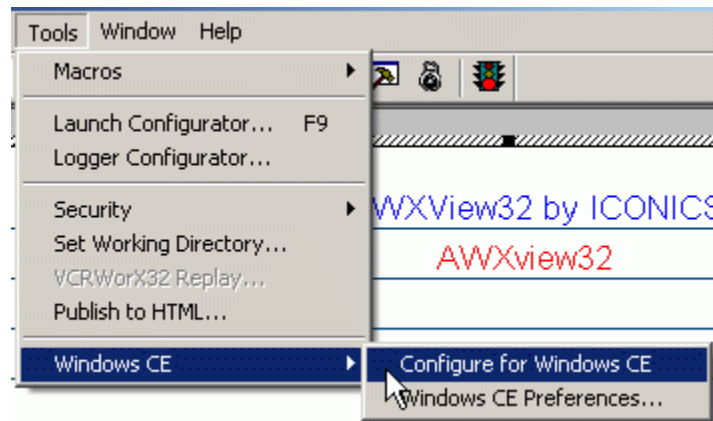
Download to Windows CE Support

All display files for Pocket GENESIS are first configured on a desktop PC using a GENESIS32 application — such as GraphWorX32, TrendWorX32, and AlarmWorX32 — and then saved in a format that is compatible with Pocket PC. A display file is then downloaded to the Pocket PC device to be viewed during runtime. Once you open the display file in the corresponding Pocket GENESIS application (i.e. Pocket GraphWorX, Pocket TrendWorX, or Pocket AlarmWorX) in runtime mode, you can execute all runtime functional dynamics that have been added during configuration. With a few exceptions, Pocket GENESIS applications have the same basic runtime functionality as their counterpart GENESIS32 applications.

Configuring for Pocket PC in GENESIS32

To configure for Pocket PC in GraphWorX32, TrendWorX32, and AlarmWorX32:

1. Select **Windows CE > Configure for Windows CE** from the **Tools** menu, as shown in the figure below. If you have just installed Pocket GENESIS, this will be checked by default.



Configuring for Pocket PC

2. Once you have configured your display, select **Save As** from the **File** menu. This opens the **Save As** dialog box, which allows you to save your configuration as a display for Pocket PC file. Give the file a name and select one of the following file types from the **Save As Type** box:
 - In GraphWorX32, select either "GraphWorX32 Displays for WinCE (*.gdc)" or "GraphWorX32 Templates for WinCE (*.gdc)."
 - In AlarmWorX32, select "AWXview32 CE File (*.ace)."
 - In TrendWorX32, select "TWXviewerCE File (*.tce)."
3. Click the **Save** button. Upon saving your configuration file for Pocket PC, features that are not supported by Pocket PC will be removed from the Pocket GENESIS display.

Note: When opening a Pocket GENESIS display in GENESIS32, you must specify the proper Pocket PC file extension.

Remote Connections

In order to connect remotely to OPC servers over a network, you must install and use GenBroker. Please see the GenBroker Help documentation for more information about configuring GenBroker.

Downloading GENESIS32 Configuration Files to Your Pocket PC

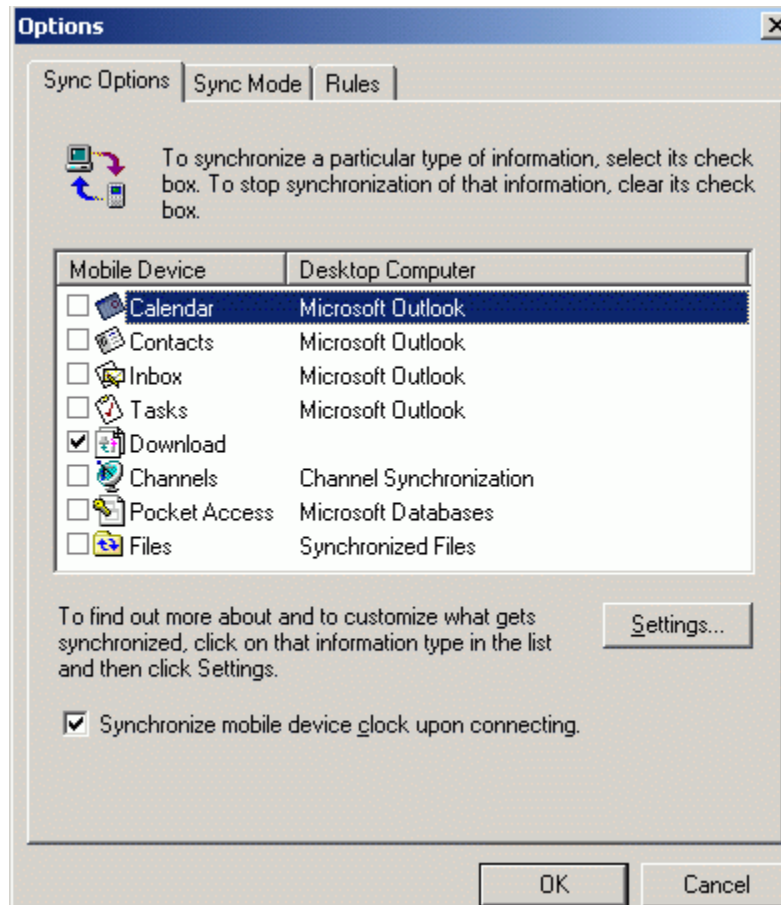
Once you have configured your application in GENESIS32 and have saved the Pocket GENESIS display file, you can use the file Download to Pocket PC Utility in GENESIS32 to download configuration files from GraphWorX32, TrendWorX32, and AlarmWorX32 to your Pocket PC device. When developing a configuration file for a Pocket GENESIS application, this feature allows you to download the configuration file to a Pocket PC device. The file download function uses Microsoft ActiveSync to connect to the Pocket PC device.

Setting up the Download

The download tool requires modules on both a desktop or workstation PC as well as a Pocket PC device, because Microsoft ActiveSync services are used for connecting and authenticating the Pocket PC device.

Configuring the Desktop

The desktop is the only part that has to be configured. If the file download tool is installed properly, it will be listed in the ActiveSync Manager list of ActiveSync modules in the **Sync Options** tab of the Windows **Options** dialog box. You must enable the file download ActiveSync module in the ActiveSync Manager by checking the **Download** box, as shown in the figure below.

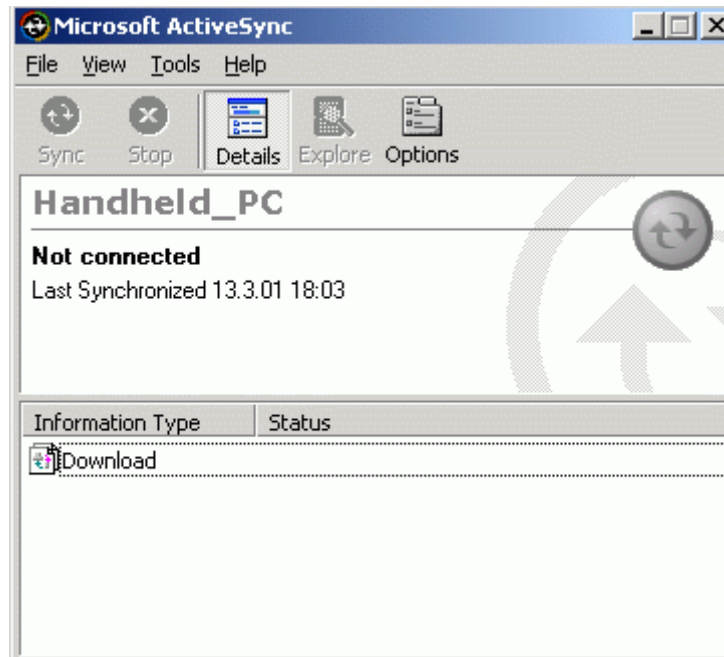


Windows Options Dialog Box

An association with the Pocket PC device must be created to synchronize the download ActiveSync modules, as shown in the figure below. When the Pocket PC device responds without any problems, the download synchronization module is active.

When enabled, the file download tool immediately downloads the configuration file for Pocket PC to the Pocket PC device. When disabled, the configured file will only be saved.

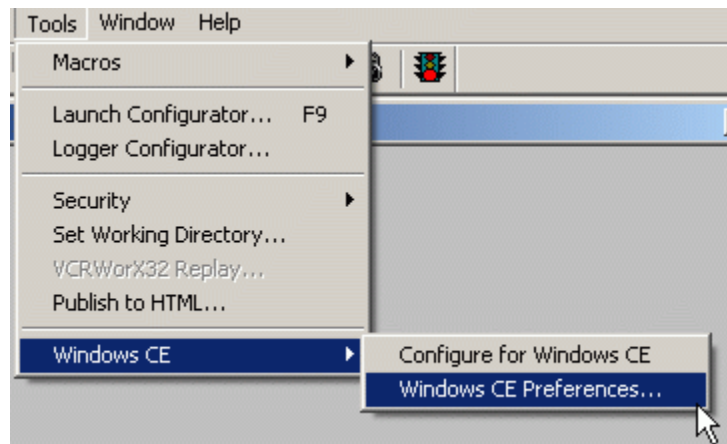
For more information about Microsoft ActiveSync services, please refer to the Microsoft ActiveSync help documentation.



Microsoft ActiveSync

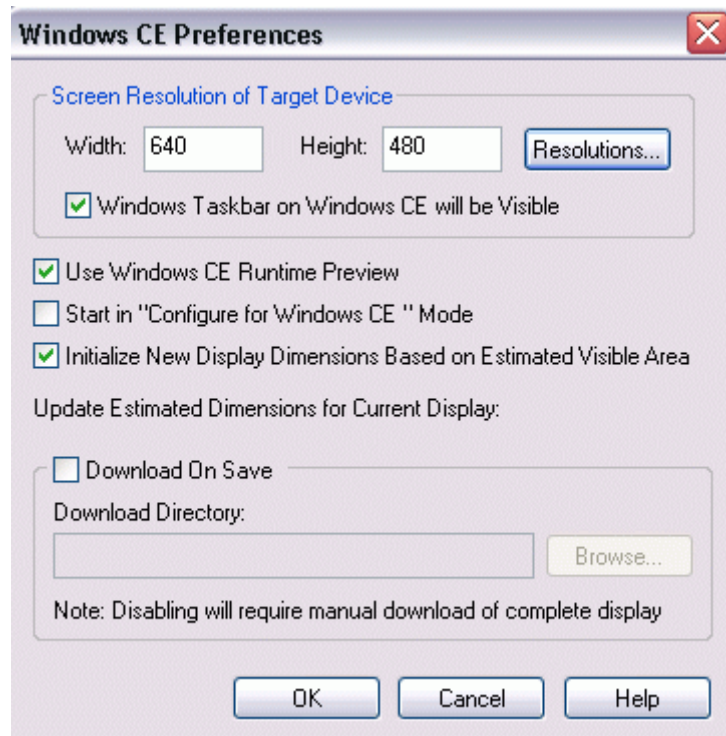
File Download Application Configuration

GraphWorX32, TrendWorX32, and AlarmWorX32 have their own version of the file download tool. In these applications, select **Windows CE > Windows CE Preferences** from the **Tools** menu, as shown in the figure below.



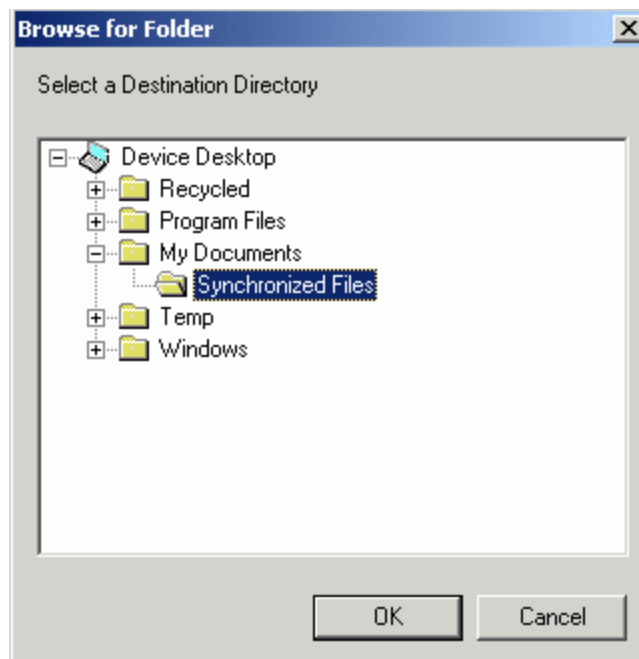
Starting the Pocket PC Download Tool

This opens the **Windows CE Preferences** dialog box, which allows you to enable or disable the file download tool. To enable this tool, check the **Download On Save** check box. Then select the destination directory on the Pocket PC device by entering the path name in the **Download Directory** field, as shown in the figure below.



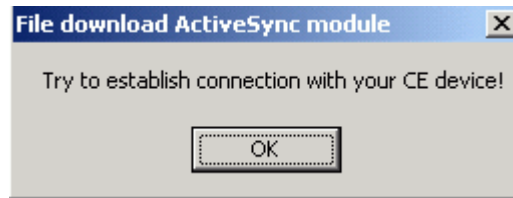
Setting the Pocket PC Preferences

You can also click the **Browse** button to select the destination directory. Clicking the **Browse** button opens the **Browse for Folder** dialog box, which shows the Pocket PC device directories, as shown in the figure below. A warning message box will be displayed when the file download ActiveSync module is inactive.



Browsing for a Folder on the Pocket PC Device

To establish a connection with the Pocket PC device, click **OK**, as shown in the figure below.



File Download ActiveSync Module

You can also use the **Windows CE Preferences** dialog box to configure other settings for the Pocket PC device. You can set the resolution of the target device by clicking the **Resolution** button. This displays a list of resolutions from 200 x 320 up to 1024 x 768.

Downloading the File to the Pocket PC

When you have finished configuring a display file and would like to save it to Pocket PC, choose **Save As** from the **File** menu. This opens the **Save As** dialog box.

- In GraphWorX32, enter the file name and select either "GraphWorX32 Displays for WinCE (*.gdc)" or "GraphWorX32 Templates for WinCE (*.gdc)" from the **Save As Type** box.
- In AlarmWorX32, enter the file name and select "AWXview32 CE File (*.ace)" from the **Save As Type** box.
- In TrendWorX32, enter the file name and select "TWXviewerCE File (*.tce)" from the **Save As Type** box.

The **Import File** dialog box will be displayed, indicating that the files are downloading to the Pocket PC device.

Starting Pocket GENESIS Applications on Your Pocket PC

Once you have downloaded your GraphWorX32, AlarmWorX32, or TrendWorX32 configuration files from your desktop PC to your Pocket PC device, you can run the applications on your Pocket PC. Open the Pocket GENESIS client applications (Pocket GraphWorX, Pocket AlarmWorX, and Pocket TrendWorX) you wish to run, and then select **Open** from the **File** menu. Browse for the desired .gdc, .ace, or .tce file.

Window Menu

The **Window** menu commands are listed in the table below.

Window Menu Commands

Command	Shortcut Keys	Function
Close		Closes the active Alarm window.
Close All		Closes all open Alarm windows.
Cascade		Overlaps all open Alarm windows.
Tile		Changes the size of all open Alarm windows to fit them evenly into the Container screen as non-overlapping tiles. This is helpful if you want to compare the data in different Alarm windows or move between Alarm windows.

Arrange Icons		Arranges icons at the bottom of the window.
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The **Window** menu also contains a list of all open **Alarm** windows. In this list, the active window is indicated by a check mark. You can display a window by selecting it from this list.

Help Menu

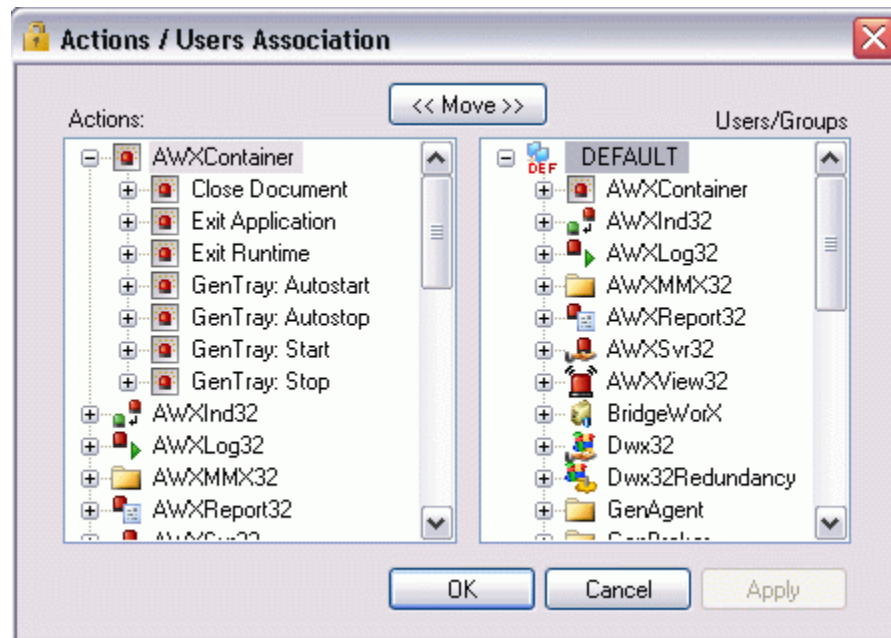
The **Help** menu commands are listed in the table below.

Help Menu Commands

Command	Shortcut Keys	Function
Help Topics	F1	Launches the online help for AlarmWorX32.
About Application		Launches the About Box , which contains the product version number, copyright, and available disk space, and contact information.

AlarmWorX32 Security

AlarmWorX32 has an interface with the Security Server and currently supports the security actions shown in the dialog box below.



Security Server

If you do not have the appropriate security actions for the functions you want to perform, an error message box will appear indicating that you do not have the security level required by the action.

VCRWorX32 Data Replay

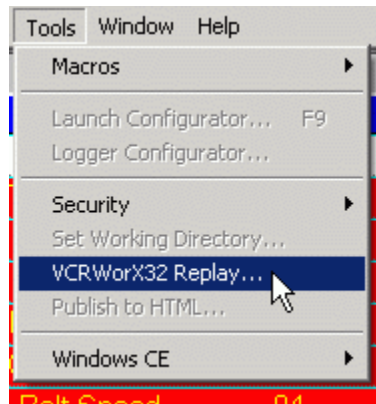
VCRWorX32 is a powerful tool in GENESIS32 that enables the replay and reanimation of graphical, historical and alarm data. Features of VCRWorX replay include:

The VCRWorX Control Panel, shown in the figure below, is the user interface that enables you to configure your historical data replay time and date settings. You can:

- See what the operator saw through replay of graphical displays.
- Specify time and date ranges for replay.
- Fast forward and rewind.
- Change the replay speed.
- Search for key events, tags, or expressions.
- Customize the layout and appearance using skins.

To launch the VCRWorX Control Panel from AlarmWorX32 during runtime mode:

4. Select **VCRWorX32 Replay** from the AlarmWorX32 **Tools** menu, as shown in the figure below.



Launching the VCRWorX Control Panel

5. This opens the **VCRWorX Control Panel**, as shown in the figure below. The AlarmWorX display goes into VCRWorX historical replay mode based on the time and date you provided. You can see the process point values and ActiveX controls update in the AlarmWorX display, and you can see the time/date field of the VCRWorX Control Panel in replay, or "playback," mode, as shown in the figure below.



VCRWorX Control Panel

For more information about VCRWorX, please see the VCRWorX32 help documentation.